



## Full wwPDB EM Validation Report ⓘ

Oct 7, 2024 – 12:31 pm BST

PDB ID : 8RRV  
EMDB ID : EMD-19466  
Title : Structure of RyR1 in detergent in close state in complex with FKBP and Nb9657.  
Authors : Li, C.; Efremov, R.G.  
Deposited on : 2024-01-23  
Resolution : 3.20 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev113  
MolProbity : 4.02b-467  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.39

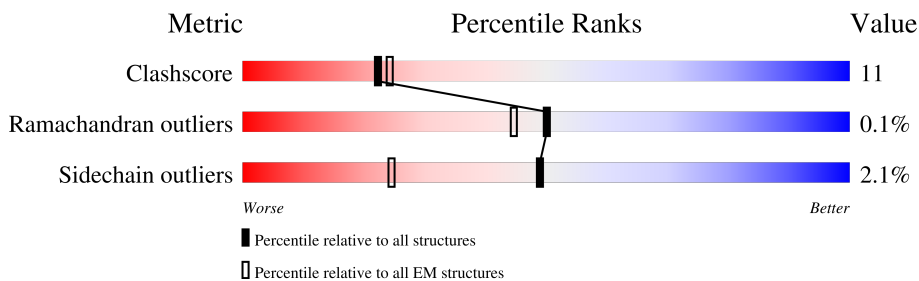
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 3.20 Å.

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



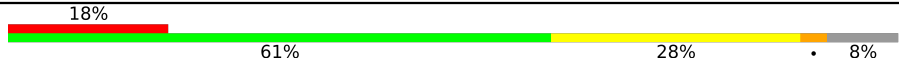

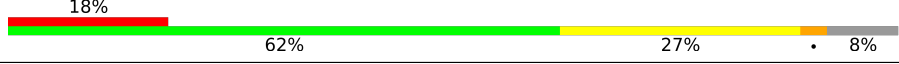

Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

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

Mol	Chain	Length	Quality of chain
1	B	5037	
1	E	5037	
1	G	5037	
1	J	5037	
2	A	107	
2	D	107	
2	H	107	
2	I	107	

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Mol	Chain	Length	Quality of chain
3	C	137	
3	F	137	
3	K	137	
3	M	137	

## 2 Entry composition i

There are 4 unique types of molecules in this entry. The entry contains 142968 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	B	4290	33956	21639	5852	6236	229	1	0
1	E	4290	33956	21639	5852	6236	229	1	0
1	G	4290	33956	21639	5852	6236	229	1	0
1	J	4290	33956	21639	5852	6236	229	1	0

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	3221	SER	THR	conflict	UNP P11716
E	3221	SER	THR	conflict	UNP P11716
G	3221	SER	THR	conflict	UNP P11716
J	3221	SER	THR	conflict	UNP P11716

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	A	107	818	516	144	154	4	0	0
2	D	107	818	516	144	154	4	0	0
2	H	107	818	516	144	154	4	0	0
2	I	107	818	516	144	154	4	0	0

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	100	ASP	GLY	conflict	UNP Q8HYX6

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Chain	Residue	Modelled	Actual	Comment	Reference
D	100	ASP	GLY	conflict	UNP Q8HYX6
H	100	ASP	GLY	conflict	UNP Q8HYX6
I	100	ASP	GLY	conflict	UNP Q8HYX6

- Molecule 3 is a protein called nanobody9657.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	C	126	967	597	170	195	5	0	0
3	F	126	967	597	170	195	5	0	0
3	K	126	967	597	170	195	5	0	0
3	M	126	967	597	170	195	5	0	0

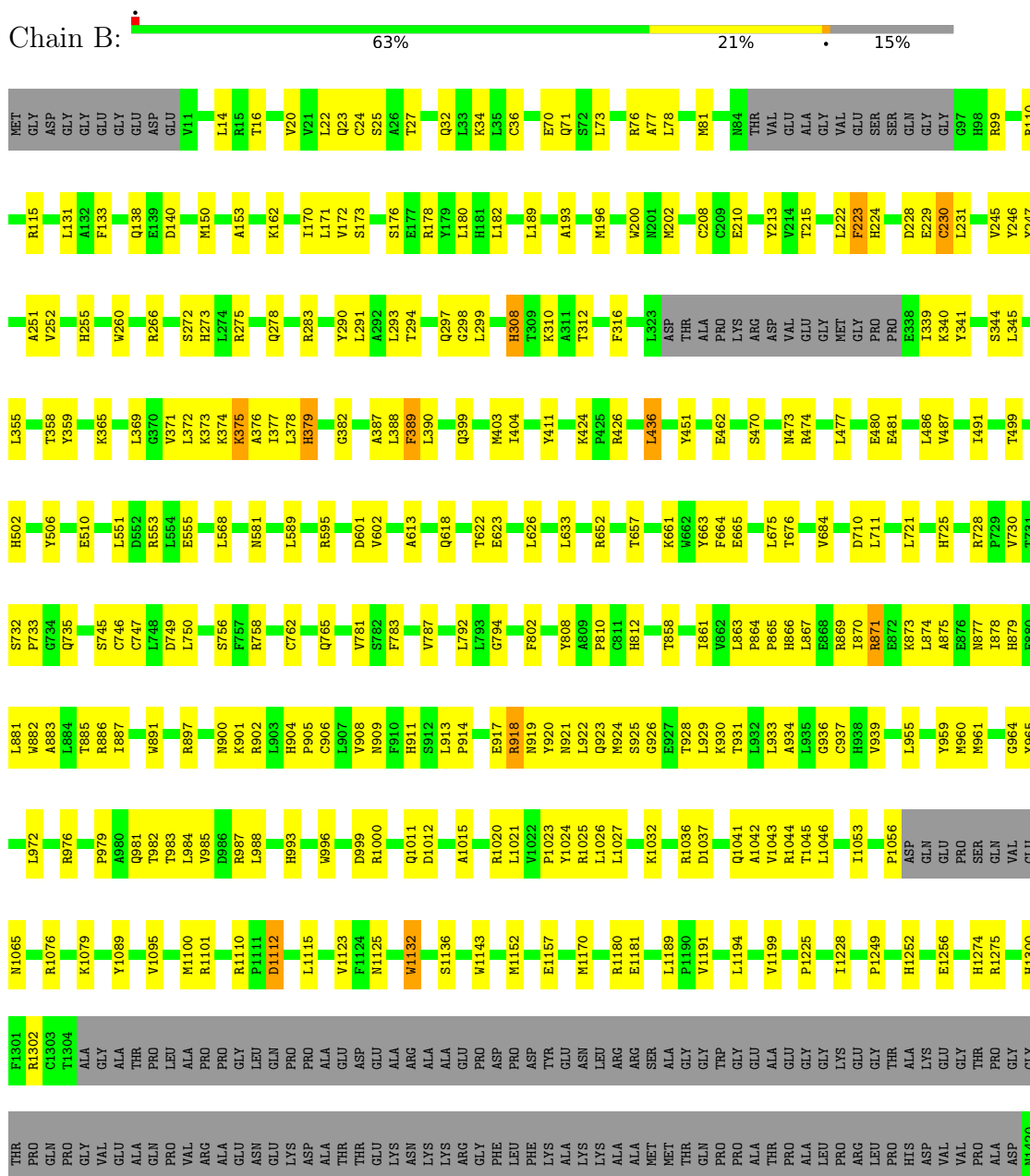
- Molecule 4 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
			Total	Zn	
4	B	1	1	1	0
4	E	1	1	1	0
4	G	1	1	1	0
4	J	1	1	1	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 1



F2973	L2974	A2975	E2976	S2977	P2978	T2979	H2980	D2981	Y2982	K2983	R2984	G2985	A2986	S2987	P2988	L3002	L3003	P3004	L3005	L3006	N3007	Q3008	Y3009	F3010	T3011	C3014	L3015	Y3016	F3017	L3018	H3030	N3033	K3034	E3035	K3036	E3037	M3038	I3039	T3040	S3041	L3042	F3043	A3047	A3048	L3049	V3050	R3051	H3052	R3053	V3054	S3055	L3056	F3057	D3060																																																																																																																				
E2828	C2829	E2830	GLU	ARG	THR	THR	GLU	LYS	LYS	LYS	THR	THR	THR	LYS	LYS	THR	LYS	LYS	GLN	TYR	TYR	ASP	PRO	ARG	GLU	GLY	Y2855	N2856	P2857	Q2858	P2859	P2860	L2861	L2862	S2863	G2864	V2865	T2866	L2867	S2868	L2871	L2876	N2881	Y2882	H2883	N2884	T2885	W2886	L28813	A2815	K2816	T2882	L2883	E2824	K2825	A2826	R2827																																																																																																																	
N2756	K2757	F2758	A2759	T2762	H2763	E2764	K2765	K2766	A2767	F2768	D2769	K2770	L2771	Q2772	N2773	N2774	N2775	S2776	Y2777	G2778	E2779	N2780	V2781	E2784	L2785	K2786	T2787	H2788	F2789	N2790	L2791	R2792	F2793	V2794	K2795	T2796	E2799	K2800	D2801	E2802	L2804	Y2805	R2806	L2813	K2814	N2816	T2822	L2823	E2824	K2825	A2826	R2827																																																																																																																						
E2828	C2829	E2830	GLU	ARG	THR	THR	GLU	LYS	LYS	LYS	THR	THR	THR	LYS	LYS	THR	LYS	LYS	GLN	TYR	TYR	ASP	PRO	ARG	GLU	GLY	Y2855	N2856	P2857	Q2858	P2859	P2860	L2861	L2862	S2863	G2864	V2865	T2866	L2867	S2868	L2871	L2876	N2881	Y2882	H2883	N2884	T2885	W2886	L28813	A2815	K2816	T2882	L2883	E2824	K2825	A2826	R2827																																																																																																																	
L2890	H2891	I2892	L2893	L2894	L2895	L2896	L2897	L2898	L2899	L2900	L2901	L2902	L2903	L2904	L2905	L2906	L2907	L2908	L2909	L2910	L2911	L2912	L2913	L2914	L2915	L2916	L2917	L2918	L2919	L2920	L2921	L2922	L2923	L2924	L2925	L2926	L2927	L2928	L2929	L2930	L2931	L2932	L2933	L2934	L2935	L2936	L2937	L2938	L2939	L2940	L2941	L2942	L2943	L2944	L2945	L2946	L2947	L2948	L2949	L2950	L2951	L2952	L2953	L2954	L2955	L2956	L2957	L2958	L2959	L2960	L2961	L2962	L2963	L2964	L2965	L2966	L2967	L2968	L2969	L2970	L2971	L2972	L2973	L2974	L2975	L2976	L2977	L2978	L2979	L2980	L2981	L2982	L2983	L2984	L2985	L2986	L2987	L2988	L2989	L2990	L2991	L2992	L2993	L2994	L2995	L2996	L2997	L2998	L2999	L3000	L3001	L3002	L3003	L3004	L3005	L3006	L3007	L3008	L3009	L3010	L3011	L3012	L3013	L3014	L3015	L3016	L3017	L3018	L3019	L3020	L3021	L3022	L3023	L3024	L3025	L3026	L3027	L3028	L3029	L3030	L3031	L3032	L3033	L3034	L3035	L3036	L3037	L3038	L3039	L3040	L3041	L3042	L3043	L3044	L3045	L3046	L3047	L3048	L3049	L3050	L3051	L3052	L3053	L3054	L3055	L3056	L3057	L3058	L3059	L3060



GLU	GLN	ALA	LEU	LEU	GLY	V4145	L4058	E5944	Q3781	E5655	S3567	GLU	D3417	E3331	A3261	H3150	V3064
PRO	ALA	LEU	TRP	GLU	GLY	L4146	L4060	Q3946	K3782	S3568	S3569	ARG	R3420	A3332	A3262	V3163	L3068
GLY	GLY	GLY	VAL	ALA	GLY	V4154	D4063	G3947	K3787	R3570	R3571	LYS	A3421	W3333	Y3263	R3167	H3069
GLY	GLY	VAL	VAL	ALA	ALA	K3948	M4064	R3949	N3809	W3578	W3579	LYS	H3422	W3334	R3266	T3168	L3070
GLY	GLY	VAL	VAL	ALA	ALA	D4157	F4065	R3949	Y3812	E3687	Y3576	ARG	P3427	R3337	P3267	L3169	L3071
ASP	ASP	ARG	ALA	ALA	GLY	F4158	L4068	K3953	Y3816	E3688	L3579	GLY	F3435	L3338	H3268	R3072	R3073
ALA	ALA	ALA	ALA	ALA	GLY	L4159	D4069	K3959	M3816	E3691	P3580	ASP	R3436	L3339	V3269	S3074	A3075
ALA	ALA	GLY	GLY	ALA	GLY	R4161	R4070	K3959	A3834	E3692	F3580	ARG	A3437	F3341	L3270	L3075	L3076
ALA	ALA	GLY	GLY	ALA	GLY	V4071	V4072	F3962	L3835	K3693	I3592	TYR	M3437	A3342	E3271	D3076	A3077
GLY	GLY	GLY	GLY	GLY	GLY	F4077	F4077	F3966	H3836	K3694	R3585	V3505	T3441	Q3343	T3272	A3078	R3078
GLY	GLY	GLY	GLY	GLY	GLY	V4081	T4082	T3966	Q3837	V3596	L3579	Q3506	F3442	R3350	L3274	E3184	R3078
ALA	ALA	ALA	ALA	ALA	ALA	R4188	L4088	T3967	L3842	V3597	L3579	E3507	F3443	P3351	P3275	K3185	T3079
ALA	ALA	ALA	ALA	ALA	ALA	R4189	S4089	E3967	L3843	H3604	R3605	E3508	Y3444	R3352	R3276	K3186	T3079
GLY	GLY	GLY	GLY	GLY	GLY	I4190	K4090	E3968	P3843	S3606	H3606	S3509	W3445	L3353	L3277	V3080	W3081
ALA	ALA	ALA	ALA	ALA	ALA	K4091	K4091	I3969	L3844	I3510	E3607	I3510	S3446	L3354	C3278	K3082	K3082
TRP	ASP	ALA	LEU	LEU	ALA	M4184	D4083	Q3970	L3844	P3519	Q3608	P3519	K3447	H3355	S3279	K3082	K3082
GLY	GLY	ALA	TRP	GLY	ALA	L4087	L4087	Q3971	A3709	L3514	L3602	L3514	M3450	F3358	Y3280	Y3088	Y3088
GLY	GLY	ALA	ALA	ALA	ALA	I4188	I4088	S3983	L3710	L3603	L3603	L3603	F3451	I3359	P3282	E3097	E3097
GLY	GLY	ALA	ALA	ALA	ALA	R4189	S4089	E3987	L3710	H3604	H3604	K3515	F3452	I3359	F3282	R3196	R3196
GLY	GLY	ALA	ALA	ALA	ALA	I4190	K4090	E3988	L3711	R3605	R3605	K3516	K3452	I3359	R3283	R3197	R3197
VAL	VAL	ALA	ALA	ALA	ALA	K4091	K4091	V3988	S3714	M3517	E3606	M3517	R3453	R3283	W3284	A3099	A3099
GLY	GLY	ALA	ALA	ALA	ALA	M4097	M4097	V3989	K3715	L3518	E3607	L3518	F3454	R3366	W3285	S3100	S3100
GLY	GLY	ALA	ALA	ALA	ALA	F4103	F4103	E3990	L3716	Q3608	Q3608	P3519	E3455	L3365	E3286	S3100	S3100
HIS	HIS	GLY	LEU	LEU	GLY	Q4209	T4104	G3991	D3717	Q3608	Q3608	P3519	Q3456	R3366	R3287	L3110	L3110
ALA	ALA	VAL	VAL	VAL	VAL	K4230	I4108	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
ALA	ALA	VAL	VAL	VAL	VAL	M4231	I4108	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
PRO	PRO	ALA	ALA	ALA	ALA	Q4109	I4108	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
GLY	GLY	ALA	ALA	ALA	ALA	F4110	I4110	G3991	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
ALA	ALA	VAL	VAL	VAL	VAL	L4112	L4112	G3991	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
ALA	ALA	VAL	VAL	VAL	VAL	E4116	E4116	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
VAL	VAL	VAL	VAL	VAL	VAL	A4117	A4117	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
VAL	VAL	VAL	VAL	VAL	VAL	D4118	D4118	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
ALA	ALA	VAL	VAL	VAL	VAL	E4119	E4119	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
ALA	ALA	VAL	VAL	VAL	VAL	M4120	M4120	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
ALA	ALA	VAL	VAL	VAL	VAL	E4121	E4121	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
ASP	ASP	ALA	ALA	ALA	ALA	M4122	M4122	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
GLY	GLY	ALA	ALA	ALA	ALA	I4123	I4123	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
GLY	GLY	ALA	ALA	ALA	ALA	M4124	M4124	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
PRO	PRO	ALA	ALA	ALA	ALA	F4125	F4125	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
PRO	PRO	ALA	ALA	ALA	ALA	D4046	D4046	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
ARG	ARG	ALA	ALA	ALA	ALA	V4049	V4049	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
ARG	ARG	ALA	ALA	ALA	ALA	F4132	F4132	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
PRO	PRO	ALA	ALA	ALA	ALA	Q4133	Q4133	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
GLY	GLY	ALA	ALA	ALA	ALA	E4134	E4134	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
ALA	ALA	ALA	ALA	ALA	ALA	F4135	F4135	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
ALA	ALA	ALA	ALA	ALA	ALA	M4136	M4136	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111
GLY	GLY	ALA	ALA	ALA	ALA	R4137	R4137	F3996	Y3722	LYS	LYS	D3529	F3458	R3367	E3290	V3202	L3111



LEU	GLY	PRO	ASP	MET	GLY	ASP	TRP	THR	THR	PRO	PRO	ALA	ALA	GLU	GLU	PRO	PRO	THR	PRO	PRO	PRO	LEU	LEU	VAL	ASP	ASP	GLY	GLU	PRO	PRO	GLU	PRO	GLU	GLU	PRO	PRO	GLU	VAL	ASP	ASP	ASP	GLY	GLY	GLY	ALA	ALA	GLU	GLU	GLY	VAL	PRO
GLU	ALA	PRO	PRO	GLY	GLY	TRP	PRO	PRO	LYS	LYS	PRO	PRO	ALA	ALA	GLU	GLU	PRO	PRO	PRO	PRO	PRO	PRO	LEU	LEU	VAL	ASP	ASP	GLY	GLU	PRO	PRO	GLU	GLU	PRO	PRO	GLU	VAL	ASP	ASP	ASP	GLY	GLY	GLY	ALA	ALA	GLU	GLU	GLY	VAL	PRO	
GLY	GLY	GLY	SER	TRP	GLY	TRP	GLY	SER	GLY	GLY	GLY	ALA	ALA	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU

● Molecule 1: Ryanodine receptor 1

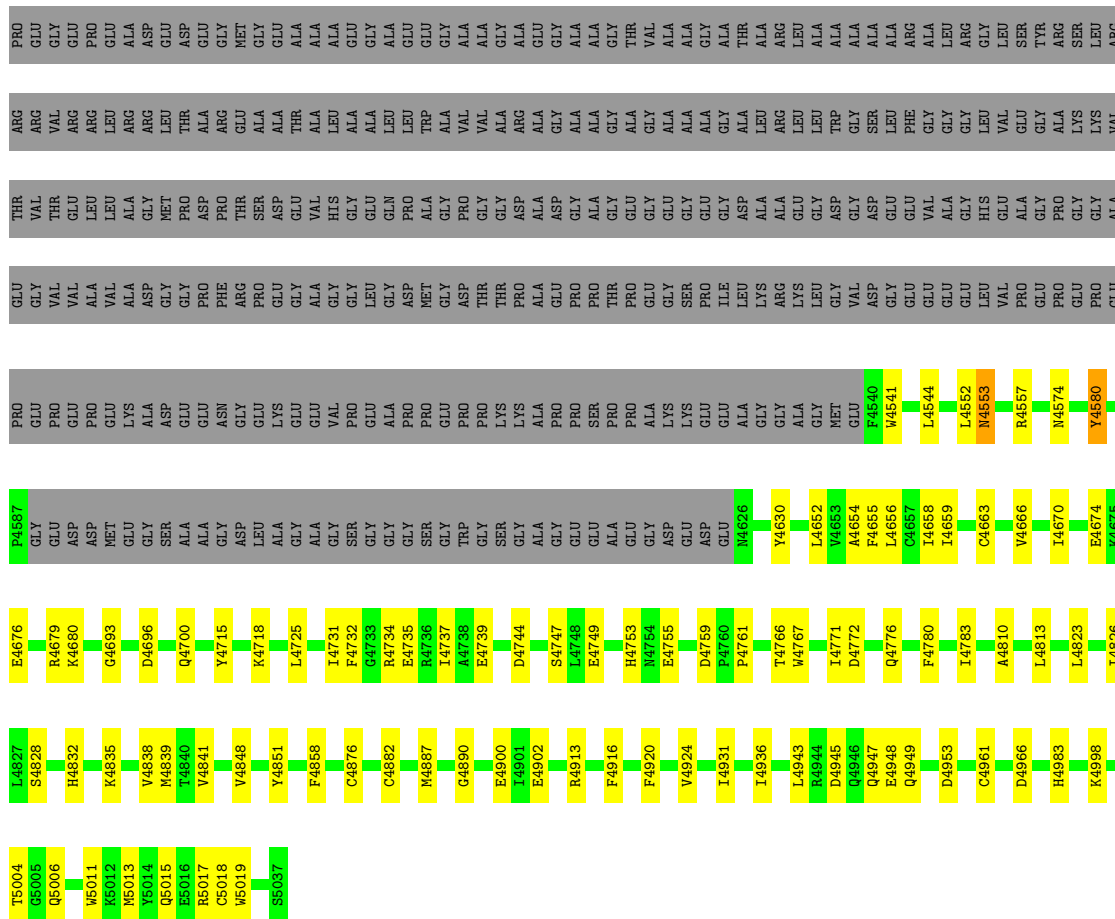


MET	GLY	ASP	GLY	GLY	GLU	GLY	GLY	ASP	GLY	V11	L14	R15	T16	V20	V21	L22	Q23	C24	S25	A26	T27	Q32	L33	K34	L35	C36	E50	P51	E70	Q71	S72	L73	R76	A77	M81	R84	THR	VAL	VAL	GLU	GLY	ALA	VAL	VAL	GLU	SER	SER	GLY	GLY	G97	H98	R99
AL106	R110	R115	F133	Q138	E139	D140	M150	A153	K162	I170	L171	V172	S173	S176	E177	R178	Y179	L180	H181	L182	L189	D192	A193	M196	W200	N201	M202	C208	C209	E210	Y213	Y214	Y215	L222	F223	H224	D228	E229	L231	L230	L345											
V245	Y246	Y247	A251	V252	H255	W260	R266	S272	H273	L274	R275	Q278	R283	Y290	L291	L293	T294	Q297	A292	L299	H308	T309	K310	A311	T312	L323	ASP	THR	ALA	PRO	LYS	ARG	ASP	VAL	GLU	GLY	MET	GLY	PRO	PRO	E338	K340	Y341	S344	L345							
L355	T358	Y359	K365	L369	V370	K372	K373	K374	K375	A376	I377	L378	H379	G382	D385	D386	A387	L388	F389	L390	M403	I404	Y411	L418	K424	F425	R426	L436	Y451	E462	E665	S470	M473	R474	L477	E480	E481	L486	V487													
I491	D492	R493	T499	H502	Y506	E510	L551	D552	R553	L554	E555	L568	L589	R595	D601	V602	A613	Q618	T622	E623	L626	L633	R652	T657	K661	W662	Y663	F664	E665	L675	T676	V694	D710	L711	L721	L486	H725															
R728	F729	W730	T731	S732	P733	G734	Q735	S745	C746	C747	L748	D749	L750	S756	F757	R758	C762	Q765	V781	F782	F783	V787	L792	L793	G794	F802	Y808	H812	T858	I861	W862	L863	P864	P865	H866	L867	E868	R869	I870	R871	E872	K873	L874	A875	B876	N877						
H878	H879	B880	L881	W882	A883	L884	T885	R886	L887	W891	R897	K901	R902	L903	H904	P905	N909	F910	H911	S912	L913	P914	E917	R918	N919	Y920	N921	L922	Q923	M924	S925	G926	E927	T928	L929	K930	T931	L932	L933	A934	L935	G936	C937	H938	W939	L955	Y959	M960	M961	G964	Y965	
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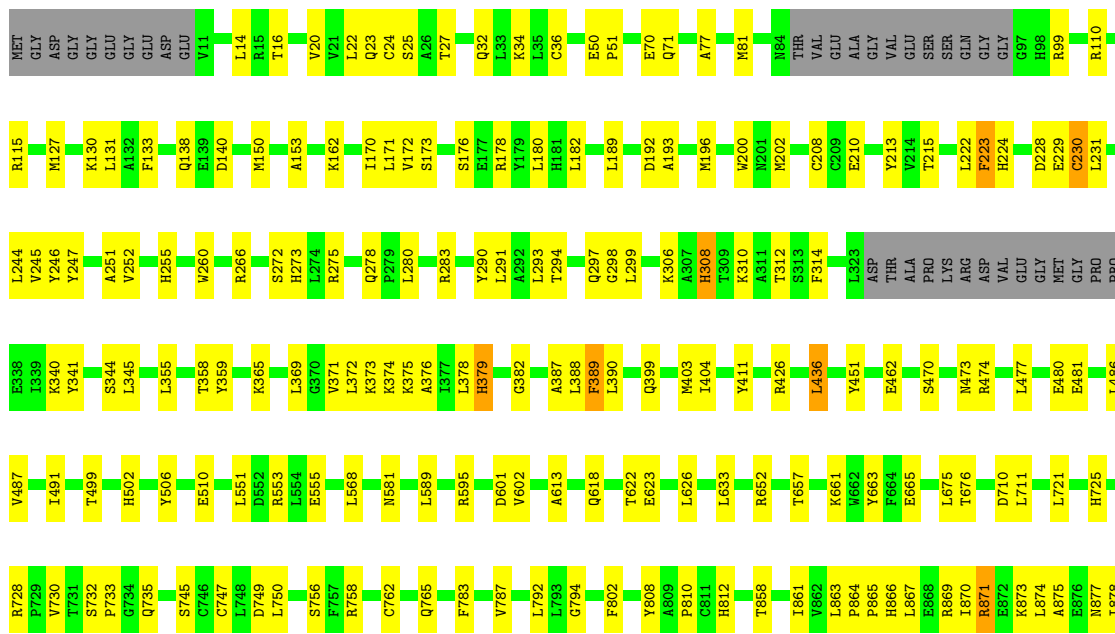


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I4123	E3893	E4032	E3893	M3758	MET	LYS	L3315	P3233	L3140	R3053	M2968	L2884
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F4077	P3580	P3580	P3580	R3437	ARG	ARG	A3342	I3272	V3183	R3078	L3002	Q2924
D4083	I3592	I3592	I3592	H3437	THR	THR	Q3343	T3274	E3184	V3080	P3004	L2927
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I4088	V3596	Q3597	V3596	F3442	GLY	GLY	P3351	F3275	L3186	K3082	I3007	Q2931
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F4093	S3601	S3601	S3601	Y3444	ARG	ARG	L3353	G3278	R3196	I3006	F3011	Y2935
F4093	S3601	S3601	S3601	Y3444	ARG	ARG	L3353	G3278	R3196	I3006	F3011	Y2935
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F4195	S3601	S3601	S3601	Y3444	ARG	ARG	L3353	G3278	R3282	L3015	L3015	A2936
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Q4209	S3601	S3601	S3601	Y3444	ARG	ARG	L3353	G3278	R3282	L3015	L3015	A2936
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V4235	S3601	S3601	S3601	Y3444	ARG	ARG	L3353	G3278	R3282	L3015	L3015	A2936
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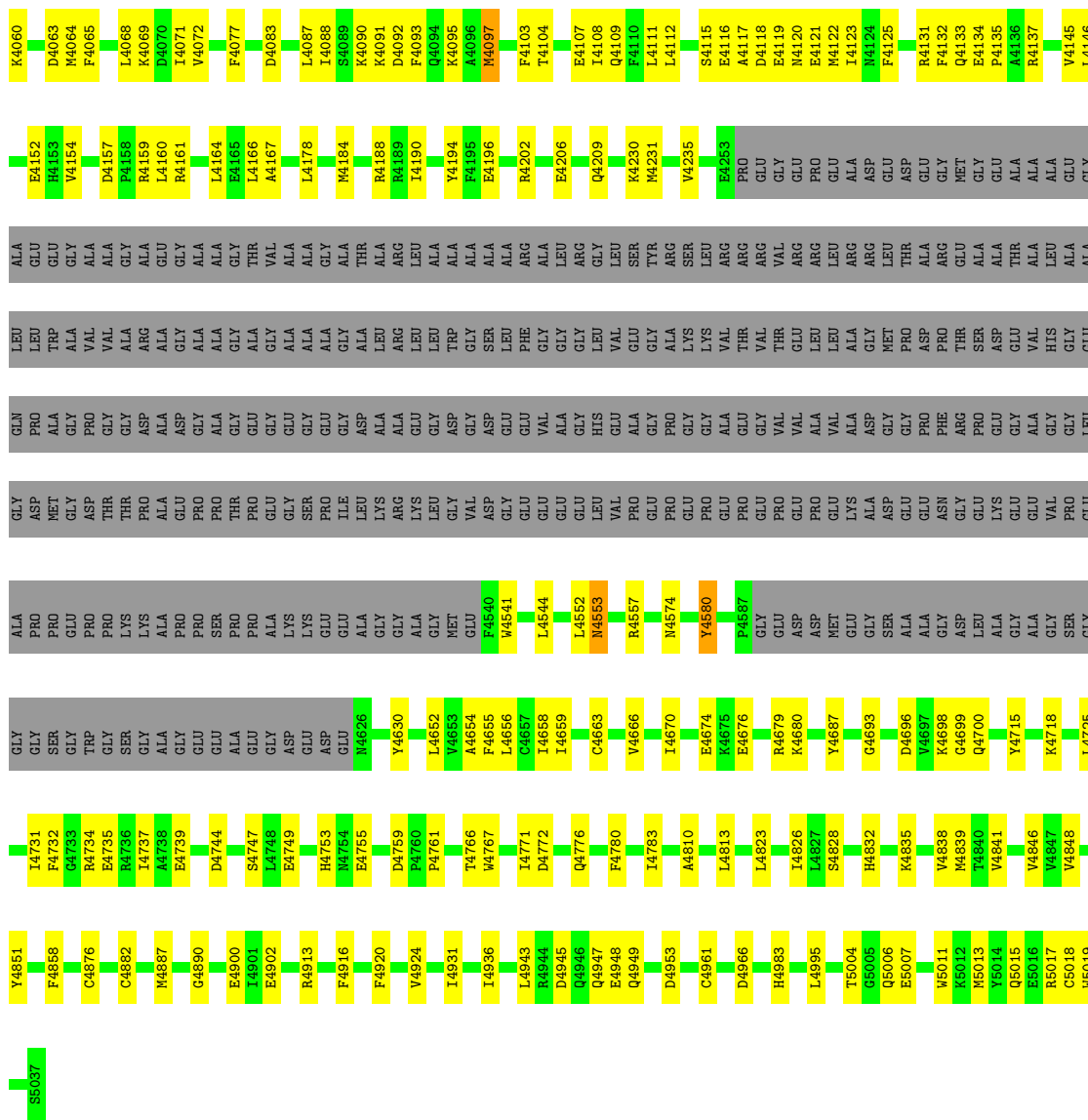


● Molecule 1: Ryanodine receptor 1

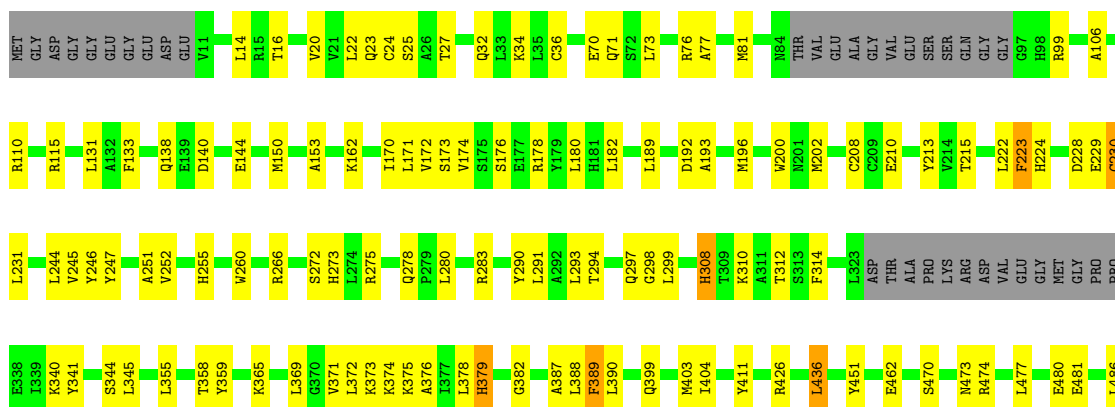




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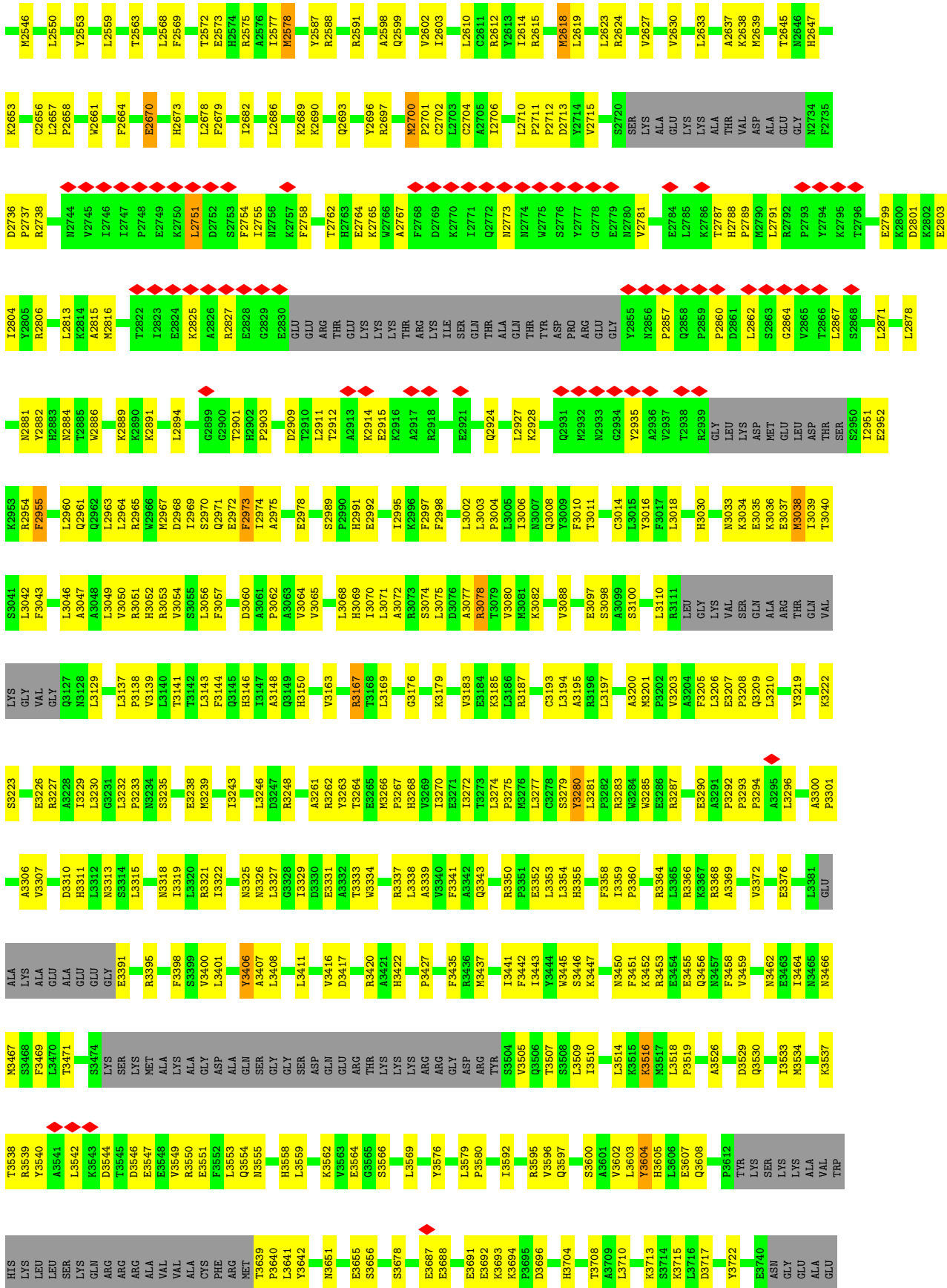


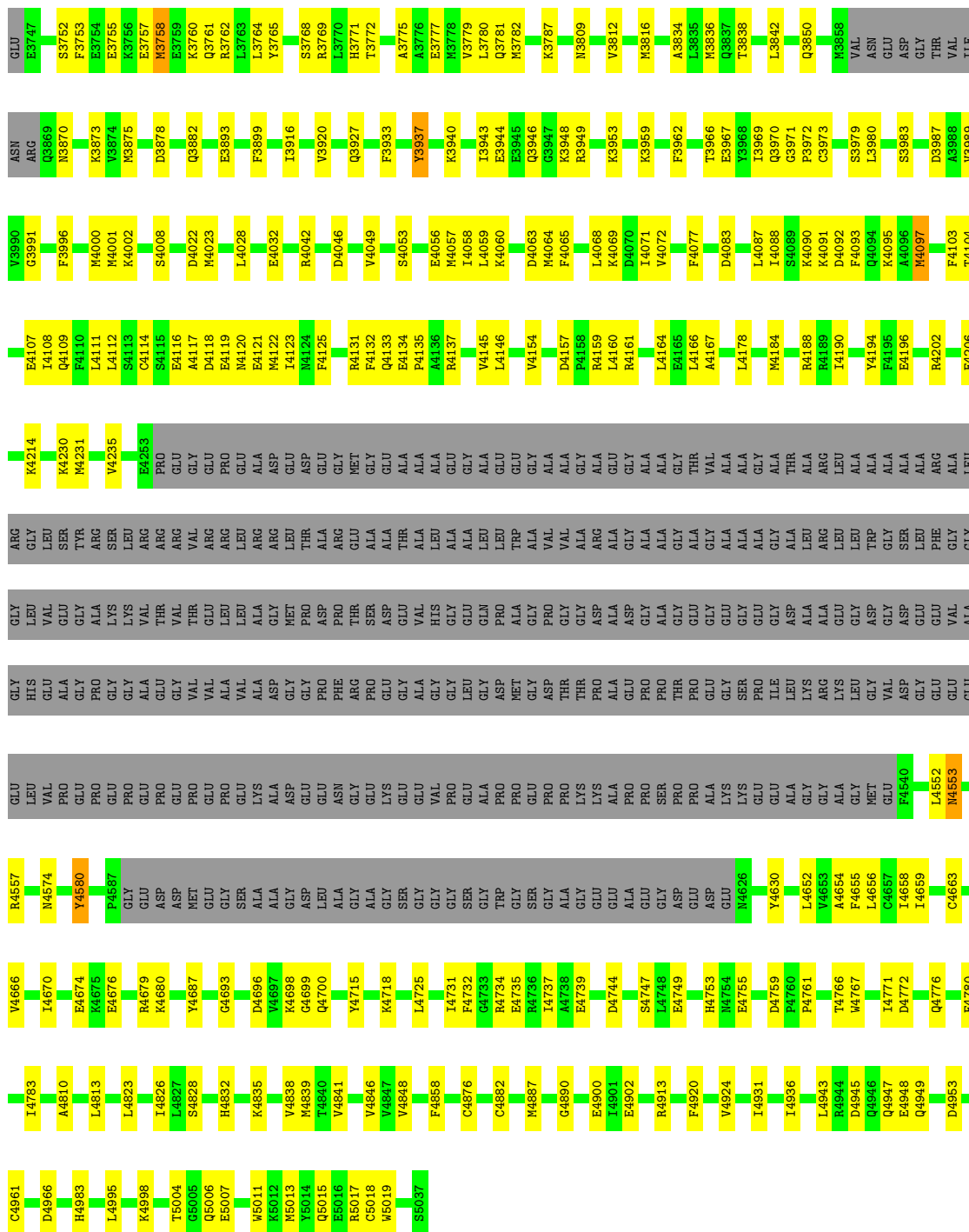
• Molecule 1: Ryanodine receptor 1



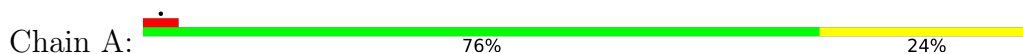




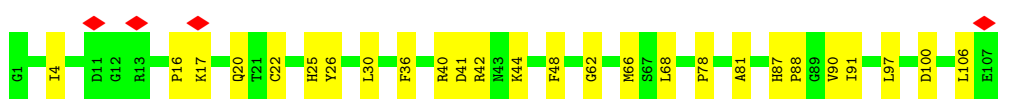
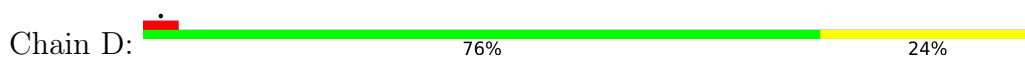




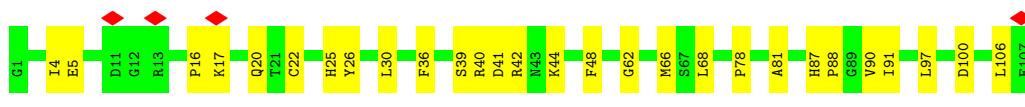
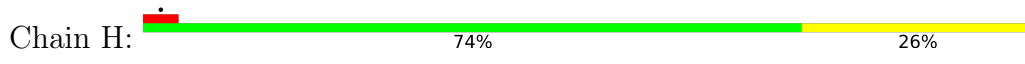
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



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



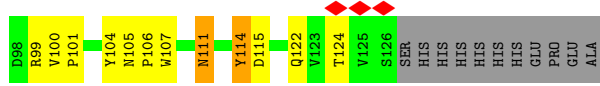
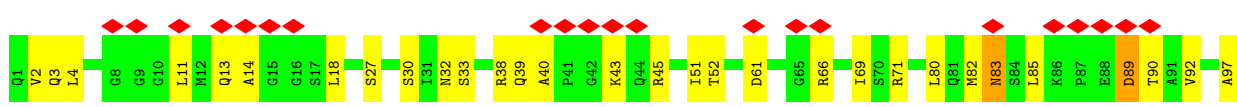
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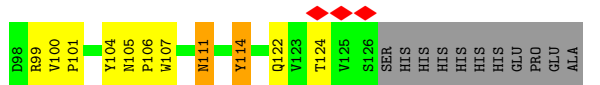
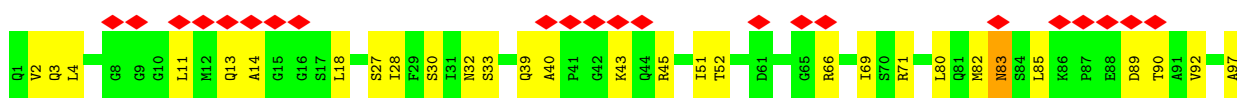
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



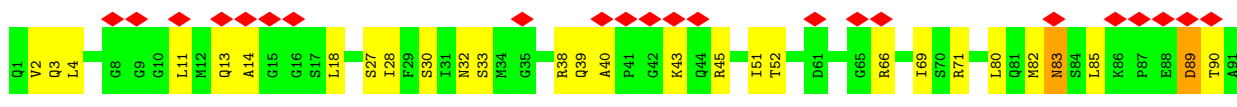
• Molecule 3: nanobody9657

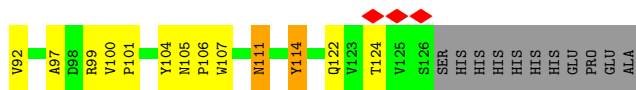


• Molecule 3: nanobody9657

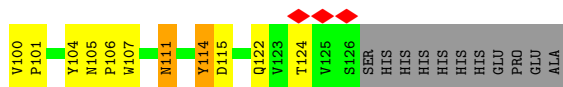
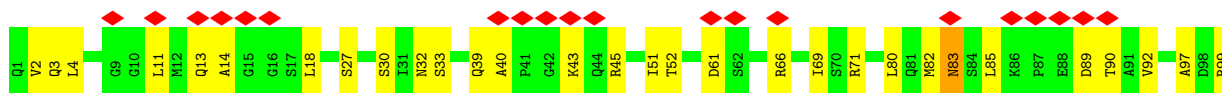


• Molecule 3: nanobody9657





• Molecule 3: nanobody9657



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	171023	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	JEOL CRYO ARM 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	60	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	6.350	Depositor
Minimum map value	-0.105	Depositor
Average map value	0.076	Depositor
Map value standard deviation	0.164	Depositor
Recommended contour level	0.35	Depositor
Map size ( $\text{\AA}$ )	499.96802, 499.96802, 499.96802	wwPDB
Map dimensions	336, 336, 336	wwPDB
Map angles ( $^\circ$ )	90.0, 90.0, 90.0	wwPDB
Pixel spacing ( $\text{\AA}$ )	1.488, 1.488, 1.488	Depositor

## 5 Model quality [i](#)

### 5.1 Standard geometry [i](#)

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

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	B	0.25	0/34727	0.50	2/47063 (0.0%)
1	E	0.25	0/34727	0.50	2/47063 (0.0%)
1	G	0.25	0/34727	0.50	2/47063 (0.0%)
1	J	0.25	0/34727	0.50	2/47063 (0.0%)
2	A	0.26	0/834	0.51	0/1123
2	D	0.26	0/834	0.51	0/1123
2	H	0.25	0/834	0.51	0/1123
2	I	0.26	0/834	0.51	0/1123
3	C	0.25	0/987	0.51	0/1340
3	F	0.25	0/987	0.51	0/1340
3	K	0.25	0/987	0.51	0/1340
3	M	0.25	0/987	0.51	0/1340
All	All	0.25	0/146192	0.50	8/198104 (0.0%)

There are no bond length outliers.

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	1503	PRO	N-CA-CB	5.74	110.19	103.30
1	E	1503	PRO	N-CA-CB	5.74	110.19	103.30
1	G	1503	PRO	N-CA-CB	5.70	110.14	103.30
1	J	1503	PRO	N-CA-CB	5.70	110.14	103.30
1	E	4097	MET	CB-CG-SD	-5.16	96.94	112.40
1	B	4097	MET	CB-CG-SD	-5.15	96.96	112.40
1	G	4097	MET	CB-CG-SD	-5.14	96.99	112.40
1	J	4097	MET	CB-CG-SD	-5.14	96.99	112.40

There are no chirality outliers.

There are no planarity outliers.

## 5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	B	33956	0	33378	744	0
1	E	33956	0	33378	756	0
1	G	33956	0	33378	749	0
1	J	33956	0	33378	765	0
2	A	818	0	824	17	0
2	D	818	0	824	17	0
2	H	818	0	824	19	0
2	I	818	0	824	19	0
3	C	967	0	916	36	0
3	F	967	0	916	34	0
3	K	967	0	916	36	0
3	M	967	0	916	36	0
4	B	1	0	0	0	0
4	E	1	0	0	0	0
4	G	1	0	0	0	0
4	J	1	0	0	0	0
All	All	142968	0	140472	3180	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 11.

All (3180) 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:J:4961:CYS:SG	1:J:4983:HIS:CE1	2.58	0.97
1:B:4961:CYS:SG	1:B:4983:HIS:CE1	2.58	0.96
1:E:4961:CYS:SG	1:E:4983:HIS:CE1	2.58	0.96
1:G:4961:CYS:SG	1:G:4983:HIS:CE1	2.58	0.95
1:B:870:ILE:HA	1:B:873:LYS:HE2	1.57	0.86
1:B:1520:VAL:HG23	1:B:1527:MET:HG2	1.58	0.86
1:J:870:ILE:HA	1:J:873:LYS:HE2	1.57	0.85
1:E:1520:VAL:HG23	1:E:1527:MET:HG2	1.58	0.84
1:G:870:ILE:HA	1:G:873:LYS:HE2	1.57	0.84
1:E:870:ILE:HA	1:E:873:LYS:HE2	1.57	0.84
1:G:1520:VAL:HG23	1:G:1527:MET:HG2	1.58	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:1520:VAL:HG23	1:J:1527:MET:HG2	1.58	0.83
1:E:210:GLU:HB3	1:E:213:TYR:HB2	1.61	0.82
1:B:210:GLU:HB3	1:B:213:TYR:HB2	1.61	0.82
1:B:897:ARG:HB2	1:B:905:PRO:HB3	1.62	0.81
1:J:210:GLU:HB3	1:J:213:TYR:HB2	1.61	0.81
1:J:897:ARG:HB2	1:J:905:PRO:HB3	1.62	0.81
1:B:3534:MET:HA	1:B:3537:LYS:HE2	1.63	0.81
1:E:897:ARG:HB2	1:E:905:PRO:HB3	1.62	0.81
1:E:917:GLU:HB2	3:F:104:TYR:HE2	1.46	0.81
1:G:3534:MET:HA	1:G:3537:LYS:HE2	1.63	0.81
1:J:917:GLU:HB2	3:K:104:TYR:HE2	1.45	0.81
1:G:210:GLU:HB3	1:G:213:TYR:HB2	1.61	0.81
1:E:3534:MET:HA	1:E:3537:LYS:HE2	1.63	0.81
1:J:3534:MET:HA	1:J:3537:LYS:HE2	1.63	0.80
1:G:897:ARG:HB2	1:G:905:PRO:HB3	1.62	0.80
1:B:3227:ARG:HB3	1:B:3232:LEU:HB2	1.64	0.79
1:B:917:GLU:HB2	3:C:104:TYR:HE2	1.48	0.79
1:E:3227:ARG:HB3	1:E:3232:LEU:HB2	1.64	0.79
1:G:3227:ARG:HB3	1:G:3232:LEU:HB2	1.64	0.78
1:J:3227:ARG:HB3	1:J:3232:LEU:HB2	1.64	0.78
1:G:981:GLN:HA	1:G:984:LEU:HD12	1.66	0.77
1:E:1422:ASP:HB2	1:E:1427:ILE:HD11	1.67	0.77
1:J:919:ASN:O	1:J:923:GLN:NE2	2.12	0.77
1:J:1422:ASP:HB2	1:J:1427:ILE:HD11	1.67	0.77
1:J:2951:ILE:HD12	1:J:2954:ARG:HD2	1.67	0.77
1:J:981:GLN:HA	1:J:984:LEU:HD12	1.66	0.77
1:B:981:GLN:HA	1:B:984:LEU:HD12	1.66	0.76
1:E:2951:ILE:HD12	1:E:2954:ARG:HD2	1.67	0.76
1:G:917:GLU:HB2	3:M:104:TYR:HE2	1.49	0.76
1:B:2951:ILE:HD12	1:B:2954:ARG:HD2	1.67	0.76
1:B:1422:ASP:HB2	1:B:1427:ILE:HD11	1.67	0.76
1:E:981:GLN:HA	1:E:984:LEU:HD12	1.66	0.75
1:B:919:ASN:O	1:B:923:GLN:NE2	2.12	0.75
1:G:919:ASN:O	1:G:923:GLN:NE2	2.12	0.75
1:G:1422:ASP:HB2	1:G:1427:ILE:HD11	1.67	0.75
1:B:3416:VAL:HB	1:B:3516:LYS:NZ	2.02	0.74
1:E:3416:VAL:HB	1:E:3516:LYS:HZ1	1.52	0.74
1:J:3416:VAL:HB	1:J:3516:LYS:NZ	2.02	0.74
1:E:3416:VAL:HB	1:E:3516:LYS:NZ	2.02	0.74
1:J:4060:LYS:O	1:J:4064:MET:HG2	1.87	0.74
1:B:4060:LYS:O	1:B:4064:MET:HG2	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3416:VAL:HB	1:G:3516:LYS:NZ	2.02	0.74
1:E:2998:PHE:HA	1:E:3002:LEU:HD23	1.70	0.74
1:G:4060:LYS:O	1:G:4064:MET:HG2	1.87	0.74
1:J:917:GLU:HB2	3:K:104:TYR:CE2	2.22	0.74
1:B:2998:PHE:HA	1:B:3002:LEU:HD23	1.70	0.74
1:E:3262:ARG:HG3	1:E:3326:ASN:HD21	1.52	0.74
1:G:2998:PHE:HA	1:G:3002:LEU:HD23	1.70	0.74
1:E:4060:LYS:O	1:E:4064:MET:HG2	1.88	0.74
1:J:2998:PHE:HA	1:J:3002:LEU:HD23	1.70	0.74
1:B:917:GLU:HB2	3:C:104:TYR:CE2	2.23	0.74
1:E:917:GLU:HB2	3:F:104:TYR:CE2	2.22	0.73
1:G:2951:ILE:HD12	1:G:2954:ARG:HD2	1.67	0.73
3:F:111:ASN:HA	3:F:114:TYR:HB2	1.69	0.73
3:K:111:ASN:HA	3:K:114:TYR:HB2	1.69	0.73
1:G:3262:ARG:HG3	1:G:3326:ASN:HD21	1.52	0.73
1:J:3262:ARG:HG3	1:J:3326:ASN:HD21	1.52	0.73
1:J:3687:GLU:HB3	1:J:3693:LYS:HE2	1.71	0.73
1:E:919:ASN:O	1:E:923:GLN:NE2	2.12	0.73
1:E:3368:ARG:HH22	1:E:3400:VAL:HG22	1.54	0.73
1:G:3687:GLU:HB3	1:G:3693:LYS:HE2	1.71	0.73
1:G:4735:GLU:OE1	1:G:4735:GLU:N	2.22	0.72
3:F:105:ASN:HD21	3:F:107:TRP:HD1	1.37	0.72
1:B:3687:GLU:HB3	1:B:3693:LYS:HE2	1.71	0.72
1:J:920:TYR:HA	1:J:923:GLN:HG2	1.72	0.72
1:E:2704:CYS:HB3	1:E:3008:GLN:HG2	1.72	0.72
1:J:3368:ARG:HH22	1:J:3400:VAL:HG22	1.54	0.72
1:B:3368:ARG:HH22	1:B:3400:VAL:HG22	1.54	0.72
1:B:2704:CYS:HB3	1:B:3008:GLN:HG2	1.72	0.72
1:B:3262:ARG:HG3	1:B:3326:ASN:HD21	1.52	0.72
3:K:105:ASN:HD21	3:K:107:TRP:HD1	1.37	0.72
1:E:920:TYR:HA	1:E:923:GLN:HG2	1.72	0.71
1:G:920:TYR:HA	1:G:923:GLN:HG2	1.72	0.71
1:G:917:GLU:HB2	3:M:104:TYR:CE2	2.24	0.71
1:G:3368:ARG:HH22	1:G:3400:VAL:HG22	1.54	0.71
1:J:3235:SER:HB3	1:J:3238:GLU:HG3	1.72	0.71
1:B:4735:GLU:OE1	1:B:4735:GLU:N	2.22	0.71
1:J:1256:GLU:HB2	1:J:1275:ARG:HE	1.56	0.71
1:E:3687:GLU:HB3	1:E:3693:LYS:HE2	1.71	0.71
3:M:111:ASN:HA	3:M:114:TYR:HB2	1.73	0.71
1:E:2974:ILE:HD11	1:E:3049:LEU:HD22	1.72	0.71
3:C:105:ASN:HD21	3:C:107:TRP:HD1	1.39	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:920:TYR:HA	1:B:923:GLN:HG2	1.72	0.71
1:B:2974:ILE:HD11	1:B:3049:LEU:HD22	1.72	0.71
3:C:111:ASN:HA	3:C:114:TYR:HB2	1.71	0.70
1:B:3235:SER:HB3	1:B:3238:GLU:HG3	1.72	0.70
1:G:4574:ASN:HD21	1:G:4810:ALA:HA	1.56	0.70
1:J:4735:GLU:OE1	1:J:4735:GLU:N	2.22	0.70
1:G:3319:ILE:HG12	1:G:3338:LEU:HD21	1.72	0.70
1:J:4574:ASN:HD21	1:J:4810:ALA:HA	1.56	0.70
1:B:875:ALA:O	1:B:879:HIS:ND1	2.25	0.70
1:E:3603:LEU:O	1:E:3607:GLU:HG3	1.91	0.70
1:G:2704:CYS:HB3	1:G:3008:GLN:HG2	1.72	0.70
1:E:3319:ILE:HG12	1:E:3338:LEU:HD21	1.72	0.70
1:G:875:ALA:O	1:G:879:HIS:ND1	2.25	0.70
1:J:2974:ILE:HD11	1:J:3049:LEU:HD22	1.72	0.70
1:J:2704:CYS:HB3	1:J:3008:GLN:HG2	1.72	0.70
1:E:3235:SER:HB3	1:E:3238:GLU:HG3	1.72	0.70
1:B:247:TYR:CD2	1:B:372:LEU:HB3	2.26	0.70
1:E:1256:GLU:HB2	1:E:1275:ARG:HE	1.56	0.70
1:G:3235:SER:HB3	1:G:3238:GLU:HG3	1.72	0.70
1:B:3603:LEU:O	1:B:3607:GLU:HG3	1.91	0.70
1:G:2974:ILE:HD11	1:G:3049:LEU:HD22	1.72	0.70
1:G:1256:GLU:HB2	1:G:1275:ARG:HE	1.56	0.69
1:G:3603:LEU:O	1:G:3607:GLU:HG3	1.91	0.69
1:J:3319:ILE:HG12	1:J:3338:LEU:HD21	1.72	0.69
1:J:3416:VAL:HB	1:J:3516:LYS:HZ1	1.57	0.69
1:E:3533:ILE:O	1:E:3537:LYS:HG3	1.92	0.69
1:E:4574:ASN:HD21	1:E:4810:ALA:HA	1.56	0.69
1:B:3319:ILE:HG12	1:B:3338:LEU:HD21	1.72	0.69
1:E:3537:LYS:HB3	1:E:3604:TYR:CD1	2.27	0.69
1:E:4735:GLU:OE1	1:E:4735:GLU:N	2.22	0.69
1:G:3533:ILE:O	1:G:3537:LYS:HG3	1.92	0.69
1:B:3537:LYS:HB3	1:B:3604:TYR:CD1	2.27	0.69
1:J:3603:LEU:O	1:J:3607:GLU:HG3	1.91	0.69
1:B:3533:ILE:O	1:B:3537:LYS:HG3	1.92	0.69
1:E:3233:PRO:HD2	1:E:3239:MET:HG2	1.74	0.69
1:J:1740:PRO:HA	1:J:1743:ARG:HG2	1.74	0.69
1:B:4574:ASN:HD21	1:B:4810:ALA:HA	1.56	0.69
1:E:4725:LEU:HD11	1:E:4734:ARG:HG3	1.75	0.69
1:G:4679:ARG:NH1	1:G:4715:TYR:OH	2.26	0.69
1:B:4725:LEU:HD11	1:B:4734:ARG:HG3	1.75	0.69
1:E:875:ALA:O	1:E:879:HIS:ND1	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3453:ARG:NH1	1:E:3456:GLN:OE1	2.26	0.69
1:G:675:LEU:HG	1:G:676:THR:HG23	1.75	0.69
1:J:3233:PRO:HD2	1:J:3239:MET:HG2	1.74	0.69
1:J:3453:ARG:NH1	1:J:3456:GLN:OE1	2.26	0.69
1:B:675:LEU:HG	1:B:676:THR:HG23	1.75	0.69
1:G:3416:VAL:HB	1:G:3516:LYS:HZ1	1.58	0.69
1:G:3537:LYS:HB3	1:G:3604:TYR:CD1	2.27	0.69
1:J:3018:LEU:HB3	1:J:3074:SER:HA	1.74	0.69
1:J:3533:ILE:O	1:J:3537:LYS:HG3	1.92	0.69
1:B:1740:PRO:HA	1:B:1743:ARG:HG2	1.74	0.68
1:E:223:PHE:O	1:E:389:PHE:N	2.21	0.68
1:E:1740:PRO:HA	1:E:1743:ARG:HG2	1.74	0.68
1:B:1256:GLU:HB2	1:B:1275:ARG:HE	1.56	0.68
1:E:675:LEU:HG	1:E:676:THR:HG23	1.75	0.68
1:E:3018:LEU:HB3	1:E:3074:SER:HA	1.74	0.68
1:E:4679:ARG:NH1	1:E:4715:TYR:OH	2.26	0.68
1:J:875:ALA:O	1:J:879:HIS:ND1	2.25	0.68
1:J:2963:LEU:O	1:J:2967:MET:HG2	1.94	0.68
1:J:4679:ARG:NH1	1:J:4715:TYR:OH	2.26	0.68
1:B:4116:GLU:O	1:B:4118:ASP:N	2.27	0.68
1:B:3233:PRO:HD2	1:B:3239:MET:HG2	1.74	0.68
1:J:4116:GLU:O	1:J:4118:ASP:N	2.27	0.68
1:B:4679:ARG:NH1	1:B:4715:TYR:OH	2.26	0.68
1:G:4116:GLU:O	1:G:4118:ASP:N	2.27	0.68
1:E:3036:LYS:HD3	1:E:3039:ILE:HD12	1.76	0.68
1:E:4580:TYR:HE2	1:E:4630:TYR:HB3	1.59	0.68
1:B:2963:LEU:O	1:B:2967:MET:HG2	1.93	0.68
1:B:3018:LEU:HB3	1:B:3074:SER:HA	1.74	0.68
1:G:4725:LEU:HD11	1:G:4734:ARG:HG3	1.75	0.68
1:G:1740:PRO:HA	1:G:1743:ARG:HG2	1.74	0.68
1:G:3233:PRO:HD2	1:G:3239:MET:HG2	1.74	0.68
1:J:675:LEU:HG	1:J:676:THR:HG23	1.75	0.68
1:J:3537:LYS:HB3	1:J:3604:TYR:CD1	2.27	0.68
1:G:2963:LEU:O	1:G:2967:MET:HG2	1.94	0.67
1:J:4725:LEU:HD11	1:J:4734:ARG:HG3	1.75	0.67
1:G:3937:TYR:O	1:G:4002:LYS:NZ	2.27	0.67
1:J:3036:LYS:HD3	1:J:3039:ILE:HD12	1.76	0.67
1:J:4580:TYR:HE2	1:J:4630:TYR:HB3	1.59	0.67
1:B:223:PHE:O	1:B:389:PHE:N	2.21	0.67
1:B:3036:LYS:HD3	1:B:3039:ILE:HD12	1.76	0.67
1:E:2963:LEU:O	1:E:2967:MET:HG2	1.93	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3376:GLU:OE2	1:E:3450:ASN:ND2	2.28	0.67
1:E:4116:GLU:O	1:E:4118:ASP:N	2.27	0.67
1:G:3018:LEU:HB3	1:G:3074:SER:HA	1.74	0.67
1:G:3036:LYS:HD3	1:G:3039:ILE:HD12	1.76	0.67
1:J:3376:GLU:OE2	1:J:3450:ASN:ND2	2.28	0.67
1:B:375:LYS:HG2	1:B:377:ILE:HD11	1.75	0.67
1:E:3937:TYR:O	1:E:4002:LYS:NZ	2.27	0.67
1:G:4580:TYR:HE2	1:G:4630:TYR:HB3	1.59	0.67
1:E:2712:PRO:HA	1:E:2955:PHE:HB3	1.76	0.67
1:J:2712:PRO:HA	1:J:2955:PHE:HB3	1.76	0.67
1:E:293:LEU:HD12	1:E:378:LEU:HD13	1.75	0.67
1:G:3376:GLU:OE2	1:G:3450:ASN:ND2	2.28	0.67
1:G:2577:ILE:HG23	1:G:2578:MET:SD	2.35	0.67
3:K:104:TYR:HE1	3:K:106:PRO:HG3	1.60	0.67
1:B:2577:ILE:HG23	1:B:2578:MET:SD	2.35	0.67
1:B:3376:GLU:OE2	1:B:3450:ASN:ND2	2.28	0.67
1:G:874:LEU:HA	1:G:877:ASN:HD21	1.60	0.67
1:G:2952:GLU:OE1	1:G:2961:GLN:NE2	2.28	0.67
1:B:3937:TYR:O	1:B:4002:LYS:NZ	2.27	0.67
1:B:4580:TYR:HE2	1:B:4630:TYR:HB3	1.59	0.67
1:J:2952:GLU:OE1	1:J:2961:GLN:NE2	2.28	0.67
1:B:2952:GLU:OE1	1:B:2961:GLN:NE2	2.28	0.66
1:G:2712:PRO:HA	1:G:2955:PHE:HB3	1.76	0.66
1:G:247:TYR:CD2	1:G:372:LEU:HB3	2.30	0.66
1:J:3937:TYR:O	1:J:4002:LYS:NZ	2.27	0.66
1:E:345:LEU:HB3	1:E:387:ALA:HB1	1.78	0.66
1:G:2536:LEU:HD13	1:G:2541:PHE:HB3	1.78	0.66
1:B:2536:LEU:HD13	1:B:2541:PHE:HB3	1.78	0.66
1:B:2712:PRO:HA	1:B:2955:PHE:HB3	1.76	0.66
1:J:2116:LEU:O	1:J:2120:MET:HG2	1.96	0.66
1:E:2577:ILE:HG23	1:E:2578:MET:SD	2.35	0.66
1:E:2952:GLU:OE1	1:E:2961:GLN:NE2	2.28	0.66
1:J:874:LEU:HA	1:J:877:ASN:HD21	1.60	0.66
1:B:1300:HIS:O	1:B:1302:ARG:NH1	2.29	0.66
1:E:1300:HIS:O	1:E:1302:ARG:NH1	2.29	0.66
1:G:665:GLU:HB3	1:G:792:LEU:HB2	1.78	0.66
1:G:2469:ILE:HA	1:G:2472:LEU:HD23	1.78	0.66
1:G:3453:ARG:NH1	1:G:3456:GLN:OE1	2.26	0.66
1:B:2469:ILE:HA	1:B:2472:LEU:HD23	1.78	0.66
1:E:874:LEU:HA	1:E:877:ASN:HD21	1.60	0.65
1:E:2116:LEU:O	1:E:2120:MET:HG2	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:345:LEU:HB3	1:B:387:ALA:HB1	1.78	0.65
1:G:1300:HIS:O	1:G:1302:ARG:NH1	2.29	0.65
1:J:247:TYR:CD2	1:J:372:LEU:HB3	2.30	0.65
1:J:293:LEU:HD12	1:J:378:LEU:HD13	1.78	0.65
1:J:2577:ILE:HG23	1:J:2578:MET:SD	2.35	0.65
1:B:874:LEU:HA	1:B:877:ASN:HD21	1.60	0.65
1:B:2116:LEU:O	1:B:2120:MET:HG2	1.96	0.65
1:E:3996:PHE:O	1:E:4000:MET:HG3	1.96	0.65
1:G:3996:PHE:O	1:G:4000:MET:HG3	1.96	0.65
1:B:1089:TYR:HD1	1:B:1152:MET:HG2	1.61	0.65
1:G:293:LEU:HD12	1:G:378:LEU:HD13	1.78	0.65
1:J:665:GLU:HB3	1:J:792:LEU:HB2	1.78	0.65
1:E:3176:GLY:HA2	1:E:3272:ILE:HD12	1.79	0.65
1:G:293:LEU:HD11	1:G:355:LEU:HD12	1.79	0.65
1:J:2536:LEU:HD13	1:J:2541:PHE:HB3	1.78	0.65
1:E:2536:LEU:HD13	1:E:2541:PHE:HB3	1.78	0.65
1:J:293:LEU:HD11	1:J:355:LEU:HD12	1.79	0.65
1:J:1300:HIS:O	1:J:1302:ARG:NH1	2.29	0.65
1:B:4902:GLU:O	1:B:4913:ARG:NH2	2.30	0.65
1:E:2469:ILE:HA	1:E:2472:LEU:HD23	1.78	0.65
1:G:223:PHE:O	1:G:389:PHE:N	2.21	0.65
1:G:2116:LEU:O	1:G:2120:MET:HG2	1.96	0.65
1:G:4131:ARG:O	1:G:4133:GLN:HG2	1.97	0.65
1:G:4902:GLU:O	1:G:4913:ARG:NH2	2.30	0.65
1:J:345:LEU:HB3	1:J:387:ALA:HB1	1.78	0.65
1:J:3270:ILE:HA	1:J:3274:LEU:HD23	1.79	0.65
1:E:1089:TYR:HD1	1:E:1152:MET:HG2	1.61	0.64
1:G:345:LEU:HB3	1:G:387:ALA:HB1	1.78	0.64
3:F:104:TYR:HE1	3:F:106:PRO:HG3	1.59	0.64
1:B:3996:PHE:O	1:B:4000:MET:HG3	1.96	0.64
1:G:3270:ILE:HA	1:G:3274:LEU:HD23	1.79	0.64
1:J:3996:PHE:O	1:J:4000:MET:HG3	1.96	0.64
1:G:3445:TRP:HA	1:G:3451:PHE:HD1	1.63	0.64
1:B:665:GLU:HB3	1:B:792:LEU:HB2	1.78	0.64
1:B:2377:LEU:HA	1:B:2469:ILE:HD11	1.79	0.64
1:B:3453:ARG:NH1	1:B:3456:GLN:OE1	2.26	0.64
1:E:652:ARG:HD3	1:E:750:LEU:HB3	1.80	0.64
1:J:2469:ILE:HA	1:J:2472:LEU:HD23	1.78	0.64
1:J:3176:GLY:HA2	1:J:3272:ILE:HD12	1.79	0.64
1:J:3553:LEU:HD11	1:J:3597:GLN:HG3	1.79	0.64
1:B:983:THR:O	1:B:987:ARG:HG3	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3270:ILE:HA	1:B:3274:LEU:HD23	1.79	0.64
1:B:3445:TRP:HA	1:B:3451:PHE:HD1	1.63	0.64
1:E:3270:ILE:HA	1:E:3274:LEU:HD23	1.79	0.64
1:E:3445:TRP:HA	1:E:3451:PHE:HD1	1.63	0.64
1:J:3445:TRP:HA	1:J:3451:PHE:HD1	1.63	0.64
1:G:983:THR:O	1:G:987:ARG:HG3	1.98	0.64
1:G:2377:LEU:HA	1:G:2469:ILE:HD11	1.79	0.64
1:J:4131:ARG:O	1:J:4133:GLN:HG2	1.97	0.64
1:B:4131:ARG:O	1:B:4133:GLN:HG2	1.97	0.64
3:M:105:ASN:HD21	3:M:107:TRP:HD1	1.46	0.64
1:B:3553:LEU:HD11	1:B:3597:GLN:HG3	1.79	0.64
1:E:247:TYR:H	1:E:374:LYS:H	1.46	0.64
1:J:983:THR:O	1:J:987:ARG:HG3	1.98	0.64
1:B:293:LEU:HD12	1:B:378:LEU:HD13	1.78	0.64
1:B:3176:GLY:HA2	1:B:3272:ILE:HD12	1.79	0.64
1:B:3987:ASP:OD2	1:E:162:LYS:NZ	2.29	0.64
1:E:665:GLU:HB3	1:E:792:LEU:HB2	1.78	0.64
1:G:1089:TYR:HD1	1:G:1152:MET:HG2	1.61	0.64
1:J:1089:TYR:HD1	1:J:1152:MET:HG2	1.61	0.64
1:E:293:LEU:HD11	1:E:355:LEU:HD12	1.79	0.64
1:E:2377:LEU:HA	1:E:2469:ILE:HD11	1.79	0.64
1:E:4131:ARG:O	1:E:4133:GLN:HG2	1.97	0.64
1:B:652:ARG:HD3	1:B:750:LEU:HB3	1.80	0.63
1:J:2862:LEU:HG	1:J:2864:GLY:H	1.63	0.63
1:J:3194:LEU:HG	1:J:3279:SER:HB2	1.80	0.63
1:E:983:THR:O	1:E:987:ARG:HG3	1.98	0.63
1:G:3176:GLY:HA2	1:G:3272:ILE:HD12	1.79	0.63
1:J:4902:GLU:O	1:J:4913:ARG:NH2	2.30	0.63
1:B:293:LEU:HD11	1:B:355:LEU:HD12	1.79	0.63
1:E:4902:GLU:O	1:E:4913:ARG:NH2	2.30	0.63
3:F:33:SER:HA	3:F:52:THR:HA	1.80	0.63
3:K:33:SER:HA	3:K:52:THR:HA	1.79	0.63
1:E:3194:LEU:HG	1:E:3279:SER:HB2	1.80	0.63
1:E:3842:LEU:HD23	1:E:3875:MET:HG3	1.81	0.63
1:G:404:ILE:HD13	1:G:481:GLU:HG3	1.81	0.63
1:G:2862:LEU:HG	1:G:2864:GLY:H	1.63	0.63
1:B:224:HIS:HA	1:B:388:LEU:HA	1.81	0.63
1:J:404:ILE:HD13	1:J:481:GLU:HG3	1.81	0.63
1:J:652:ARG:HD3	1:J:750:LEU:HB3	1.80	0.63
1:B:404:ILE:HD13	1:B:481:GLU:HG3	1.81	0.63
1:B:2447:LYS:HG2	1:B:2450:ALA:H	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2862:LEU:HG	1:B:2864:GLY:H	1.63	0.63
1:B:3842:LEU:HD23	1:B:3875:MET:HG3	1.81	0.63
1:B:3970:GLN:HE21	1:B:5004:THR:HA	1.63	0.63
1:G:3553:LEU:HD11	1:G:3597:GLN:HG3	1.79	0.63
1:J:2377:LEU:HA	1:J:2469:ILE:HD11	1.79	0.63
1:E:2447:LYS:HG2	1:E:2450:ALA:H	1.63	0.63
1:E:3141:THR:OG1	1:E:3193:CYS:SG	2.56	0.63
1:G:224:HIS:HA	1:G:388:LEU:HA	1.81	0.63
1:G:359:TYR:HA	1:G:376:ALA:HA	1.80	0.63
1:E:404:ILE:HD13	1:E:481:GLU:HG3	1.81	0.63
1:E:3141:THR:HG1	1:E:3193:CYS:HG	1.43	0.63
1:G:633:LEU:HD13	1:G:1639:LEU:HD21	1.81	0.63
1:J:224:HIS:HA	1:J:388:LEU:HA	1.81	0.63
1:E:224:HIS:HA	1:E:388:LEU:HA	1.81	0.63
1:B:2261:SER:HA	1:B:2265:LEU:HD23	1.81	0.62
1:G:3194:LEU:HG	1:G:3279:SER:HB2	1.80	0.62
3:C:33:SER:HA	3:C:52:THR:HA	1.81	0.62
1:E:3553:LEU:HD11	1:E:3597:GLN:HG3	1.79	0.62
1:E:2261:SER:HA	1:E:2265:LEU:HD23	1.81	0.62
1:E:4090:LYS:H	1:E:4121:GLU:HB3	1.64	0.62
1:G:2447:LYS:HG2	1:G:2450:ALA:H	1.63	0.62
1:J:2376:LEU:HB2	1:J:2465:ASP:HB3	1.82	0.62
3:M:66:ARG:NH1	3:M:83:ASN:O	2.32	0.62
1:B:633:LEU:HD13	1:B:1639:LEU:HD21	1.81	0.62
1:G:2376:LEU:HB2	1:G:2465:ASP:HB3	1.82	0.62
1:J:2447:LYS:HG2	1:J:2450:ALA:H	1.63	0.62
1:J:4090:LYS:H	1:J:4121:GLU:HB3	1.64	0.62
1:E:633:LEU:HD13	1:E:1639:LEU:HD21	1.81	0.62
1:G:652:ARG:HD3	1:G:750:LEU:HB3	1.80	0.62
1:J:633:LEU:HD13	1:J:1639:LEU:HD21	1.81	0.62
1:B:3077:ALA:HA	1:B:3080:VAL:HG22	1.82	0.62
1:E:2862:LEU:HG	1:E:2864:GLY:H	1.63	0.62
1:E:294:THR:HG23	1:E:297:GLN:H	1.65	0.62
1:E:3077:ALA:HA	1:E:3080:VAL:HG22	1.82	0.62
1:G:3466:ASN:ND2	1:G:3507:THR:HG23	2.15	0.62
1:G:3842:LEU:HD23	1:G:3875:MET:HG3	1.81	0.62
1:G:3970:GLN:HE21	1:G:5004:THR:HA	1.64	0.62
1:J:3842:LEU:HD23	1:J:3875:MET:HG3	1.80	0.62
1:J:4059:LEU:HD13	1:J:4167:ALA:HB2	1.82	0.62
1:B:4059:LEU:HD13	1:B:4167:ALA:HB2	1.82	0.61
1:B:4154:VAL:O	1:B:4161:ARG:NH2	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4059:LEU:HD13	1:E:4167:ALA:HB2	1.82	0.61
1:G:2261:SER:HA	1:G:2265:LEU:HD23	1.82	0.61
1:J:359:TYR:HA	1:J:376:ALA:HA	1.80	0.61
1:B:3194:LEU:HG	1:B:3279:SER:HB2	1.80	0.61
1:E:4154:VAL:O	1:E:4161:ARG:NH2	2.33	0.61
1:J:2781:VAL:HA	1:J:2789:PRO:HB2	1.82	0.61
3:F:66:ARG:NH1	3:F:83:ASN:O	2.32	0.61
1:B:4654:ALA:O	1:B:4658:ILE:HG12	2.00	0.61
1:G:2781:VAL:HA	1:G:2789:PRO:HB2	1.83	0.61
1:G:3077:ALA:HA	1:G:3080:VAL:HG22	1.82	0.61
1:B:2376:LEU:HB2	1:B:2465:ASP:HB3	1.82	0.61
1:B:4090:LYS:H	1:B:4121:GLU:HB3	1.64	0.61
1:E:2781:VAL:HA	1:E:2789:PRO:HB2	1.82	0.61
1:G:891:TRP:HA	1:G:902:ARG:HB3	1.83	0.61
1:J:2522:LEU:HA	1:J:2526:PHE:HD2	1.66	0.61
1:B:1583:GLU:OE1	1:B:1586:ASN:ND2	2.34	0.61
1:B:2781:VAL:HA	1:B:2789:PRO:HB2	1.82	0.61
1:B:3466:ASN:ND2	1:B:3507:THR:HG23	2.15	0.61
1:E:3466:ASN:ND2	1:E:3507:THR:HG23	2.15	0.61
1:E:3987:ASP:OD2	1:J:162:LYS:NZ	2.30	0.61
1:E:4654:ALA:O	1:E:4658:ILE:HG12	2.00	0.61
1:G:4059:LEU:HD13	1:G:4167:ALA:HB2	1.82	0.61
1:J:891:TRP:HE1	1:J:904:HIS:HA	1.66	0.61
1:E:3097:GLU:OE1	1:E:3167:ARG:NH1	2.34	0.61
1:J:3466:ASN:ND2	1:J:3507:THR:HG23	2.15	0.61
3:C:66:ARG:NH1	3:C:83:ASN:O	2.32	0.61
1:B:891:TRP:HA	1:B:902:ARG:HB3	1.83	0.61
1:E:2376:LEU:HB2	1:E:2465:ASP:HB3	1.82	0.61
1:G:2522:LEU:HA	1:G:2526:PHE:HD2	1.66	0.61
2:H:42:ARG:HB3	2:H:44:LYS:HE2	1.83	0.61
1:B:182:LEU:HD11	1:B:189:LEU:HB3	1.83	0.61
1:B:294:THR:HG23	1:B:297:GLN:H	1.65	0.61
1:B:1024:TYR:HA	1:B:1027:LEU:HD12	1.83	0.61
1:G:4090:LYS:H	1:G:4121:GLU:HB3	1.64	0.61
1:J:182:LEU:HD11	1:J:189:LEU:HB3	1.83	0.61
1:B:359:TYR:HA	1:B:376:ALA:HA	1.83	0.61
1:B:3539:ARG:HA	1:B:3542:LEU:HB2	1.83	0.61
1:G:182:LEU:HD11	1:G:189:LEU:HB3	1.83	0.61
1:G:2615:ARG:HG3	1:G:2664:PHE:HB3	1.83	0.61
1:G:3537:LYS:HB3	1:G:3604:TYR:CE1	2.36	0.61
1:J:223:PHE:O	1:J:389:PHE:N	2.21	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:246:TYR:HE1	1:J:375:LYS:HZ3	1.48	0.61
1:J:2261:SER:HA	1:J:2265:LEU:HD23	1.82	0.61
1:J:3077:ALA:HA	1:J:3080:VAL:HG22	1.82	0.61
1:B:2599:GLN:O	1:B:2603:ILE:HG12	2.01	0.60
1:E:2522:LEU:HA	1:E:2526:PHE:HD2	1.66	0.60
1:J:3539:ARG:HA	1:J:3542:LEU:HB2	1.83	0.60
2:I:42:ARG:HB3	2:I:44:LYS:HE2	1.83	0.60
1:B:2989:SER:HB2	1:B:2992:GLU:HB3	1.83	0.60
1:B:3416:VAL:HB	1:B:3516:LYS:HZ1	1.64	0.60
1:B:3441:ILE:HG22	1:B:3510:ILE:HD11	1.84	0.60
1:G:266:ARG:HH12	1:G:273:HIS:CE1	2.19	0.60
1:J:266:ARG:HH12	1:J:273:HIS:CE1	2.19	0.60
1:J:4835:LYS:O	1:J:4839:MET:HG3	2.01	0.60
1:B:399:GLN:O	1:B:403:MET:HG3	2.02	0.60
1:B:2522:LEU:HA	1:B:2526:PHE:HD2	1.66	0.60
1:E:891:TRP:HE1	1:E:904:HIS:HA	1.66	0.60
1:E:1583:GLU:OE1	1:E:1586:ASN:ND2	2.34	0.60
1:E:2989:SER:HB2	1:E:2992:GLU:HB3	1.83	0.60
1:J:3537:LYS:HB3	1:J:3604:TYR:CE1	2.36	0.60
1:E:266:ARG:HH12	1:E:273:HIS:CE1	2.20	0.60
1:E:399:GLN:O	1:E:403:MET:HG3	2.02	0.60
1:G:3539:ARG:HA	1:G:3542:LEU:HB2	1.83	0.60
1:J:294:THR:HG23	1:J:297:GLN:H	1.66	0.60
1:J:3201:MET:SD	1:J:3203:VAL:HG12	2.42	0.60
1:J:3970:GLN:HE21	1:J:5004:THR:HA	1.65	0.60
2:A:42:ARG:HB3	2:A:44:LYS:HE2	1.83	0.60
1:B:2638:LYS:HB2	1:B:2639:MET:HE1	1.83	0.60
1:E:3441:ILE:HG22	1:E:3510:ILE:HD11	1.83	0.60
1:G:399:GLN:O	1:G:403:MET:HG3	2.02	0.60
1:G:676:THR:HG21	1:G:1633:PRO:HB3	1.84	0.60
1:G:1024:TYR:HA	1:G:1027:LEU:HD12	1.83	0.60
1:J:2599:GLN:O	1:J:2603:ILE:HG12	2.01	0.60
1:J:2989:SER:HB2	1:J:2992:GLU:HB3	1.83	0.60
1:B:891:TRP:HE1	1:B:904:HIS:HA	1.66	0.60
1:E:1024:TYR:HA	1:E:1027:LEU:HD12	1.83	0.60
1:G:4835:LYS:O	1:G:4839:MET:HG3	2.01	0.60
1:J:891:TRP:HA	1:J:902:ARG:HB3	1.83	0.60
1:J:3097:GLU:OE1	1:J:3167:ARG:NH1	2.34	0.60
1:J:4767:TRP:HE1	1:J:4771:ILE:HD11	1.67	0.60
1:B:4835:LYS:O	1:B:4839:MET:HG3	2.01	0.60
1:E:4835:LYS:O	1:E:4839:MET:HG3	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:246:TYR:HE1	1:G:375:LYS:HZ3	1.49	0.60
1:G:294:THR:HG23	1:G:297:GLN:H	1.66	0.60
1:G:2989:SER:HB2	1:G:2992:GLU:HB3	1.83	0.60
1:G:3201:MET:SD	1:G:3203:VAL:HG12	2.42	0.60
1:G:4654:ALA:O	1:G:4658:ILE:HG12	2.00	0.60
1:J:365:LYS:HE2	1:J:369:LEU:HD21	1.83	0.60
1:J:1583:GLU:OE1	1:J:1586:ASN:ND2	2.34	0.60
1:J:3441:ILE:HG22	1:J:3510:ILE:HD11	1.84	0.60
1:B:266:ARG:HH12	1:B:273:HIS:CE1	2.19	0.60
1:B:374:LYS:O	1:B:375:LYS:C	2.40	0.60
1:B:3263:TYR:HA	1:B:3270:ILE:HG13	1.84	0.60
1:B:3537:LYS:HB3	1:B:3604:TYR:CE1	2.36	0.60
1:E:355:LEU:HD13	1:E:378:LEU:O	2.02	0.60
1:E:3537:LYS:HB3	1:E:3604:TYR:CE1	2.36	0.60
1:E:3539:ARG:HA	1:E:3542:LEU:HB2	1.83	0.60
1:G:900:ASN:ND2	3:M:61:ASP:OD1	2.34	0.60
1:G:2273:LEU:HD23	1:G:2330:ARG:HB3	1.84	0.60
1:G:2599:GLN:O	1:G:2603:ILE:HG12	2.01	0.60
1:G:3263:TYR:HA	1:G:3270:ILE:HG13	1.84	0.60
1:G:4154:VAL:O	1:G:4161:ARG:NH2	2.33	0.60
1:G:4767:TRP:HE1	1:G:4771:ILE:HD11	1.67	0.60
2:D:42:ARG:HB3	2:D:44:LYS:HE2	1.83	0.60
1:E:247:TYR:CD2	1:E:372:LEU:HB3	2.37	0.60
1:E:891:TRP:HA	1:E:902:ARG:HB3	1.83	0.60
1:E:2615:ARG:HG3	1:E:2664:PHE:HB3	1.83	0.60
1:E:4767:TRP:HE1	1:E:4771:ILE:HD11	1.67	0.60
1:G:365:LYS:HE2	1:G:369:LEU:HD21	1.84	0.60
1:G:3441:ILE:HG22	1:G:3510:ILE:HD11	1.83	0.60
1:J:2376:LEU:O	1:J:2380:ILE:HG12	2.02	0.60
1:J:4654:ALA:O	1:J:4658:ILE:HG12	2.00	0.60
1:B:676:THR:HG21	1:B:1633:PRO:HB3	1.84	0.60
1:E:182:LEU:HD11	1:E:189:LEU:HB3	1.83	0.60
1:E:676:THR:HG21	1:E:1633:PRO:HB3	1.84	0.60
1:E:3201:MET:SD	1:E:3203:VAL:HG12	2.42	0.60
1:G:1583:GLU:OE1	1:G:1586:ASN:ND2	2.34	0.60
1:G:3097:GLU:OE1	1:G:3167:ARG:NH1	2.34	0.60
1:G:3339:ALA:HB2	1:G:3407:ALA:HA	1.84	0.60
1:B:3097:GLU:OE1	1:B:3167:ARG:NH1	2.34	0.59
1:E:2599:GLN:O	1:E:2603:ILE:HG12	2.01	0.59
1:E:3970:GLN:HE21	1:E:5004:THR:HA	1.66	0.59
1:J:399:GLN:O	1:J:403:MET:HG3	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:4154:VAL:O	1:J:4161:ARG:NH2	2.33	0.59
1:J:3263:TYR:HA	1:J:3270:ILE:HG13	1.84	0.59
1:B:2615:ARG:HG3	1:B:2664:PHE:HB3	1.83	0.59
1:B:4767:TRP:HE1	1:B:4771:ILE:HD11	1.67	0.59
1:G:891:TRP:HE1	1:G:904:HIS:HA	1.66	0.59
1:E:972:LEU:HB2	1:E:1044:ARG:HE	1.67	0.59
1:E:3263:TYR:HA	1:E:3270:ILE:HG13	1.84	0.59
1:J:2273:LEU:HD23	1:J:2330:ARG:HB3	1.84	0.59
1:J:1447:CYS:HB3	1:J:1555:LEU:HB3	1.84	0.59
1:B:4091:LYS:O	1:B:4095:LYS:HG2	2.03	0.59
1:J:1024:TYR:HA	1:J:1027:LEU:HD12	1.83	0.59
1:J:2615:ARG:HG3	1:J:2664:PHE:HB3	1.83	0.59
1:J:2961:GLN:HA	1:J:2964:LEU:HD12	1.85	0.59
1:B:247:TYR:HD2	1:B:372:LEU:HB3	1.68	0.59
1:B:2961:GLN:HA	1:B:2964:LEU:HD12	1.85	0.59
1:B:3201:MET:SD	1:B:3203:VAL:HG12	2.42	0.59
1:G:2376:LEU:O	1:G:2380:ILE:HG12	2.02	0.59
1:B:972:LEU:HB2	1:B:1044:ARG:HE	1.67	0.59
1:E:224:HIS:NE2	1:E:230:CYS:SG	2.76	0.59
1:E:365:LYS:HE2	1:E:369:LEU:HD21	1.83	0.59
1:G:2961:GLN:HA	1:G:2964:LEU:HD12	1.85	0.59
1:J:676:THR:HG21	1:J:1633:PRO:HB3	1.84	0.59
1:J:1423:ASP:OD2	1:J:1425:GLU:HG2	2.03	0.59
2:D:90:VAL:HG12	2:D:91:ILE:HG13	1.85	0.59
1:B:3339:ALA:HB2	1:B:3407:ALA:HA	1.84	0.59
1:E:2376:LEU:O	1:E:2380:ILE:HG12	2.02	0.59
1:G:985:VAL:HG22	1:G:1043:VAL:HG21	1.85	0.59
1:G:3537:LYS:HA	1:G:3540:TYR:HD2	1.68	0.59
1:J:3331:GLU:HG3	1:J:3334:TRP:HB3	1.85	0.59
1:B:2273:LEU:HD23	1:B:2330:ARG:HB3	1.84	0.58
1:E:2961:GLN:HA	1:E:2964:LEU:HD12	1.85	0.58
1:B:1447:CYS:HB3	1:B:1555:LEU:HB3	1.84	0.58
1:E:2736:ASP:OD1	1:E:2736:ASP:N	2.37	0.58
1:E:3331:GLU:HG3	1:E:3334:TRP:HB3	1.85	0.58
1:E:3537:LYS:HA	1:E:3540:TYR:HD2	1.68	0.58
3:M:33:SER:HA	3:M:52:THR:HA	1.84	0.58
1:B:229:GLU:HG2	1:B:252:VAL:HG13	1.85	0.58
1:E:1095:VAL:HB	1:E:1199:VAL:HG23	1.85	0.58
1:E:1423:ASP:OD2	1:E:1425:GLU:HG2	2.03	0.58
1:E:2273:LEU:HD23	1:E:2330:ARG:HB3	1.84	0.58
1:G:972:LEU:HB2	1:G:1044:ARG:HE	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:224:HIS:NE2	1:J:230:CYS:SG	2.76	0.58
1:J:1095:VAL:HB	1:J:1199:VAL:HG23	1.86	0.58
2:A:90:VAL:HG12	2:A:91:ILE:HG13	1.85	0.58
1:B:2376:LEU:O	1:B:2380:ILE:HG12	2.02	0.58
1:G:1780:PRO:O	2:H:42:ARG:NH1	2.36	0.58
1:J:985:VAL:HG22	1:J:1043:VAL:HG21	1.85	0.58
1:E:3230:LEU:HG	1:E:3232:LEU:HG	1.86	0.58
1:E:3360:PRO:O	1:E:3364:ARG:HG2	2.04	0.58
1:G:229:GLU:HG2	1:G:252:VAL:HG13	1.85	0.58
1:G:1447:CYS:HB3	1:G:1555:LEU:HB3	1.84	0.58
1:B:208:CYS:HB3	1:B:272:SER:HB3	1.86	0.58
1:B:1095:VAL:HB	1:B:1199:VAL:HG23	1.86	0.58
1:B:3230:LEU:HG	1:B:3232:LEU:HG	1.86	0.58
1:E:1447:CYS:HB3	1:E:1555:LEU:HB3	1.84	0.58
1:E:2310:CYS:HB3	1:E:2313:LEU:HG	1.86	0.58
1:E:3339:ALA:HB2	1:E:3407:ALA:HA	1.84	0.58
1:E:4091:LYS:O	1:E:4095:LYS:HG2	2.03	0.58
1:G:1423:ASP:OD2	1:G:1425:GLU:HG2	2.03	0.58
3:K:66:ARG:NH1	3:K:83:ASN:O	2.32	0.58
1:B:3360:PRO:O	1:B:3364:ARG:HG2	2.04	0.58
1:G:1095:VAL:HB	1:G:1199:VAL:HG23	1.86	0.58
1:G:4091:LYS:O	1:G:4095:LYS:HG2	2.03	0.58
2:I:90:VAL:HG12	2:I:91:ILE:HG13	1.85	0.58
3:C:4:LEU:HD21	3:C:97:ALA:HB2	1.86	0.58
3:K:4:LEU:HD21	3:K:97:ALA:HB2	1.86	0.58
1:B:224:HIS:NE2	1:B:230:CYS:SG	2.76	0.58
1:B:231:LEU:HA	1:B:245:VAL:HB	1.86	0.58
1:B:985:VAL:HG22	1:B:1043:VAL:HG21	1.85	0.58
1:E:1448:VAL:HG12	1:E:1554:VAL:HG23	1.86	0.58
1:E:3051:ARG:HH21	1:E:3098:SER:HB3	1.69	0.58
1:J:972:LEU:HB2	1:J:1044:ARG:HE	1.67	0.58
1:J:2175:GLU:O	1:J:2179:ILE:HG12	2.03	0.58
1:J:3246:LEU:HD23	1:J:3246:LEU:H	1.69	0.58
1:B:1423:ASP:OD2	1:B:1425:GLU:HG2	2.03	0.58
1:B:2418:LEU:O	1:B:2422:ILE:HG12	2.04	0.58
1:B:2736:ASP:OD1	1:B:2736:ASP:N	2.37	0.58
1:B:3331:GLU:HG3	1:B:3334:TRP:HB3	1.86	0.58
1:B:3537:LYS:HA	1:B:3540:TYR:HD2	1.68	0.58
1:E:2418:LEU:O	1:E:2422:ILE:HG12	2.04	0.58
1:G:162:LYS:NZ	1:J:3987:ASP:OD2	2.33	0.58
1:G:224:HIS:NE2	1:G:230:CYS:SG	2.76	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2310:CYS:HB3	1:G:2313:LEU:HG	1.86	0.58
1:G:2418:LEU:O	1:G:2422:ILE:HG12	2.04	0.58
1:G:3230:LEU:HG	1:G:3232:LEU:HG	1.86	0.58
1:J:3360:PRO:O	1:J:3364:ARG:HG2	2.04	0.58
3:M:4:LEU:HD21	3:M:97:ALA:HB2	1.86	0.58
1:B:23:GLN:HG2	1:B:36:CYS:HB3	1.86	0.58
1:B:2175:GLU:O	1:B:2179:ILE:HG12	2.03	0.58
1:B:2310:CYS:HB3	1:B:2313:LEU:HG	1.86	0.58
1:B:2476:ILE:HD11	1:B:2536:LEU:HD21	1.86	0.58
1:E:2534:ALA:HB1	1:E:2588:ARG:HD2	1.86	0.58
1:G:2476:ILE:HD11	1:G:2536:LEU:HD21	1.86	0.58
1:J:3051:ARG:HH21	1:J:3098:SER:HB3	1.69	0.58
1:J:3230:LEU:HG	1:J:3232:LEU:HG	1.86	0.58
2:H:90:VAL:HG12	2:H:91:ILE:HG13	1.85	0.58
1:G:2534:ALA:HB1	1:G:2588:ARG:HD2	1.86	0.57
1:G:3246:LEU:H	1:G:3246:LEU:HD23	1.69	0.57
1:J:2310:CYS:HB3	1:J:2313:LEU:HG	1.86	0.57
1:B:2182:ILE:O	1:B:2186:MET:HG2	2.05	0.57
1:E:2175:GLU:O	1:E:2179:ILE:HG12	2.04	0.57
1:E:2182:ILE:O	1:E:2186:MET:HG2	2.05	0.57
1:E:3205:PHE:HE2	1:E:3243:ILE:HG21	1.69	0.57
1:E:3326:ASN:HB3	1:E:3329:ILE:HB	1.86	0.57
1:E:3540:TYR:CE2	1:E:3549:VAL:HG11	2.40	0.57
1:J:3205:PHE:HE2	1:J:3243:ILE:HG21	1.69	0.57
1:E:208:CYS:HB3	1:E:272:SER:HB3	1.86	0.57
1:E:231:LEU:HA	1:E:245:VAL:HB	1.85	0.57
1:E:985:VAL:HG22	1:E:1043:VAL:HG21	1.85	0.57
1:G:2736:ASP:OD1	1:G:2736:ASP:N	2.36	0.57
1:G:3331:GLU:HG3	1:G:3334:TRP:HB3	1.85	0.57
1:G:3540:TYR:CE2	1:G:3549:VAL:HG11	2.39	0.57
1:J:3339:ALA:HB2	1:J:3407:ALA:HA	1.84	0.57
1:J:3537:LYS:HA	1:J:3540:TYR:HD2	1.68	0.57
1:J:4091:LYS:O	1:J:4095:LYS:HG2	2.03	0.57
3:M:30:SER:HB3	3:M:99:ARG:HB3	1.87	0.57
1:B:2591:ARG:HH12	1:B:2637:ALA:HA	1.70	0.57
1:E:4056:GLU:HG2	1:E:4166:LEU:HD13	1.86	0.57
1:G:208:CYS:HB3	1:G:272:SER:HB3	1.86	0.57
1:J:1780:PRO:O	2:I:42:ARG:NH1	2.38	0.57
1:E:229:GLU:HG2	1:E:252:VAL:HG13	1.85	0.57
1:J:23:GLN:HG2	1:J:36:CYS:HB3	1.86	0.57
1:J:2534:ALA:HB1	1:J:2588:ARG:HD2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2382:GLU:HA	1:B:2385:ARG:HE	1.70	0.57
1:B:3540:TYR:CE2	1:B:3549:VAL:HG11	2.40	0.57
1:B:4072:VAL:HG23	1:B:4125:PHE:HE2	1.70	0.57
1:G:3360:PRO:O	1:G:3364:ARG:HG2	2.04	0.57
1:G:4072:VAL:HG23	1:G:4125:PHE:HE2	1.70	0.57
1:J:4056:GLU:HG2	1:J:4166:LEU:HD13	1.86	0.57
3:C:30:SER:HB3	3:C:99:ARG:HB3	1.87	0.57
3:F:4:LEU:HD21	3:F:97:ALA:HB2	1.86	0.57
1:E:765:GLN:NE2	1:E:1478:ASP:O	2.38	0.57
1:G:23:GLN:HG2	1:G:36:CYS:HB3	1.86	0.57
1:G:2175:GLU:O	1:G:2179:ILE:HG12	2.04	0.57
1:G:3051:ARG:HH21	1:G:3098:SER:HB3	1.69	0.57
1:J:2476:ILE:HD11	1:J:2536:LEU:HD21	1.86	0.57
1:B:359:TYR:HB2	1:B:374:LYS:HB3	1.86	0.57
1:B:3246:LEU:HD23	1:B:3246:LEU:H	1.69	0.57
1:G:2382:GLU:HA	1:G:2385:ARG:HE	1.70	0.57
1:J:3540:TYR:CE2	1:J:3549:VAL:HG11	2.39	0.57
1:B:4053:SER:O	1:B:4057:MET:HG3	2.05	0.57
1:E:877:ASN:ND2	1:E:1045:THR:HG21	2.20	0.57
1:E:1011:GLN:OE1	1:E:1020:ARG:NH2	2.35	0.57
1:G:877:ASN:ND2	1:G:1045:THR:HG21	2.20	0.57
1:G:3450:ASN:HA	1:G:3453:ARG:HB2	1.87	0.57
1:J:231:LEU:HA	1:J:245:VAL:HB	1.86	0.57
1:J:2382:GLU:HA	1:J:2385:ARG:HE	1.70	0.57
1:J:3534:MET:SD	1:J:3537:LYS:NZ	2.75	0.57
1:J:4072:VAL:HG23	1:J:4125:PHE:HE2	1.70	0.57
1:B:224:HIS:HD2	1:B:388:LEU:HB3	1.70	0.57
1:B:1448:VAL:HG12	1:B:1554:VAL:HG23	1.86	0.57
1:G:2591:ARG:HH12	1:G:2637:ALA:HA	1.69	0.57
1:G:2755:ILE:HG23	1:G:2813:LEU:HD13	1.87	0.57
1:J:229:GLU:HG2	1:J:252:VAL:HG13	1.85	0.57
1:J:1023:PRO:HD2	1:J:1026:LEU:HD12	1.87	0.57
1:B:1225:PRO:HG2	1:B:1228:ILE:HB	1.87	0.56
1:B:3326:ASN:HB3	1:B:3329:ILE:HB	1.86	0.56
1:E:4072:VAL:HG23	1:E:4125:PHE:HE2	1.70	0.56
1:G:224:HIS:HD2	1:G:388:LEU:HB3	1.70	0.56
1:G:231:LEU:HA	1:G:245:VAL:HB	1.86	0.56
1:G:1023:PRO:HD2	1:G:1026:LEU:HD12	1.87	0.56
1:G:2175:GLU:HG3	1:G:2228:MET:HB2	1.86	0.56
1:G:4053:SER:O	1:G:4057:MET:HG3	2.05	0.56
1:B:3169:LEU:HD13	1:B:3197:LEU:HD11	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:224:HIS:HD2	1:E:388:LEU:HB3	1.70	0.56
1:E:1225:PRO:HG2	1:E:1228:ILE:HB	1.87	0.56
1:E:4053:SER:O	1:E:4057:MET:HG3	2.05	0.56
1:G:1448:VAL:HG12	1:G:1554:VAL:HG23	1.86	0.56
1:G:2182:ILE:O	1:G:2186:MET:HG2	2.05	0.56
1:J:208:CYS:HB3	1:J:272:SER:HB3	1.86	0.56
1:J:1448:VAL:HG12	1:J:1554:VAL:HG23	1.86	0.56
1:J:2175:GLU:HG3	1:J:2228:MET:HB2	1.86	0.56
1:B:3205:PHE:HE2	1:B:3243:ILE:HG21	1.69	0.56
1:E:462:GLU:HG2	1:E:3710:LEU:HD13	1.88	0.56
1:E:2591:ARG:HH12	1:E:2637:ALA:HA	1.69	0.56
1:E:3246:LEU:HD23	1:E:3246:LEU:H	1.69	0.56
1:E:3455:GLU:O	1:E:3459:VAL:HG23	2.06	0.56
1:G:765:GLN:NE2	1:G:1478:ASP:O	2.38	0.56
1:G:1225:PRO:HG2	1:G:1228:ILE:HB	1.87	0.56
1:G:3326:ASN:HB3	1:G:3329:ILE:HB	1.86	0.56
1:J:224:HIS:HD2	1:J:388:LEU:HB3	1.70	0.56
1:J:765:GLN:NE2	1:J:1478:ASP:O	2.38	0.56
1:J:1225:PRO:HG2	1:J:1228:ILE:HB	1.87	0.56
1:J:2418:LEU:O	1:J:2422:ILE:HG12	2.04	0.56
1:J:3311:HIS:O	1:J:3315:LEU:HG	2.06	0.56
1:J:3326:ASN:HB3	1:J:3329:ILE:HB	1.86	0.56
1:J:3455:GLU:O	1:J:3459:VAL:HG23	2.06	0.56
1:J:4053:SER:O	1:J:4057:MET:HG3	2.05	0.56
3:C:11:LEU:HG	3:C:124:THR:HB	1.87	0.56
1:G:3205:PHE:HE2	1:G:3243:ILE:HG21	1.69	0.56
1:J:3169:LEU:HD13	1:J:3197:LEU:HD11	1.88	0.56
3:C:104:TYR:HE1	3:C:106:PRO:HG3	1.71	0.56
1:B:16:THR:HG22	1:B:99:ARG:H	1.71	0.56
1:B:2500:ALA:HB2	1:B:2553:TYR:HD1	1.71	0.56
1:B:3051:ARG:HH21	1:B:3098:SER:HB3	1.69	0.56
1:B:3971:GLY:O	1:B:3973:CYS:N	2.39	0.56
1:E:2175:GLU:HG3	1:E:2228:MET:HB2	1.86	0.56
1:E:2476:ILE:HD11	1:E:2536:LEU:HD21	1.86	0.56
1:E:2500:ALA:HB2	1:E:2553:TYR:HD1	1.71	0.56
1:G:2500:ALA:HB2	1:G:2553:TYR:HD1	1.71	0.56
1:G:3466:ASN:HA	1:G:3469:PHE:CD2	2.41	0.56
1:G:3555:ASN:O	1:G:3558:HIS:ND1	2.37	0.56
1:J:2755:ILE:HG23	1:J:2813:LEU:HD13	1.87	0.56
1:J:3537:LYS:O	1:J:3540:TYR:HB2	2.06	0.56
1:B:4056:GLU:HG2	1:B:4166:LEU:HD13	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:20:VAL:HG11	1:E:202:MET:HG3	1.88	0.56
1:E:23:GLN:HG2	1:E:36:CYS:HB3	1.86	0.56
1:E:377:ILE:HB	1:E:379:HIS:CE1	2.40	0.56
1:E:2737:PRO:HD2	1:E:2891:LYS:HD3	1.88	0.56
1:E:3537:LYS:O	1:E:3540:TYR:HB2	2.06	0.56
1:G:3311:HIS:O	1:G:3315:LEU:HG	2.06	0.56
1:J:877:ASN:ND2	1:J:1045:THR:HG21	2.20	0.56
1:J:2591:ARG:HH12	1:J:2637:ALA:HA	1.69	0.56
1:B:2755:ILE:HG23	1:B:2813:LEU:HD13	1.87	0.56
1:E:2382:GLU:HA	1:E:2385:ARG:HE	1.70	0.56
1:E:3466:ASN:HA	1:E:3469:PHE:CD2	2.41	0.56
1:G:16:THR:HG22	1:G:99:ARG:H	1.71	0.56
1:G:3537:LYS:O	1:G:3540:TYR:HB2	2.06	0.56
3:K:30:SER:HB3	3:K:99:ARG:HB3	1.88	0.56
1:B:3003:LEU:HB2	1:B:3004:PRO:HD3	1.88	0.56
1:B:3450:ASN:HA	1:B:3453:ARG:HB2	1.87	0.56
1:B:3466:ASN:HA	1:B:3469:PHE:CD2	2.41	0.56
1:E:2755:ILE:HG23	1:E:2813:LEU:HD13	1.87	0.56
1:G:3757:GLU:O	1:G:3761:GLN:HG2	2.06	0.56
1:J:20:VAL:HG11	1:J:202:MET:HG3	1.88	0.56
1:J:3466:ASN:HA	1:J:3469:PHE:CD2	2.41	0.56
1:B:765:GLN:NE2	1:B:1478:ASP:O	2.38	0.56
1:B:877:ASN:ND2	1:B:1045:THR:HG21	2.20	0.56
1:B:2534:ALA:HB1	1:B:2588:ARG:HD2	1.86	0.56
1:E:2960:LEU:HB3	1:E:3038:MET:HE1	1.87	0.56
1:G:1011:GLN:OE1	1:G:1020:ARG:NH2	2.35	0.56
1:G:3003:LEU:HB2	1:G:3004:PRO:HD3	1.88	0.56
1:G:4056:GLU:HG2	1:G:4166:LEU:HD13	1.86	0.56
1:J:3355:HIS:O	1:J:3359:ILE:HD12	2.06	0.56
1:J:3450:ASN:HA	1:J:3453:ARG:HB2	1.87	0.56
1:J:3757:GLU:O	1:J:3761:GLN:HG2	2.06	0.56
1:J:3971:GLY:O	1:J:3973:CYS:N	2.39	0.56
1:E:16:THR:HG22	1:E:99:ARG:H	1.71	0.56
1:E:3311:HIS:O	1:E:3315:LEU:HG	2.06	0.56
1:E:3450:ASN:HA	1:E:3453:ARG:HB2	1.87	0.56
1:G:2271:THR:HG23	1:G:2274:ASP:H	1.71	0.56
1:G:3110:LEU:HD11	1:G:3129:LEU:HD22	1.87	0.56
1:G:3455:GLU:O	1:G:3459:VAL:HG23	2.06	0.56
1:B:1023:PRO:HD2	1:B:1026:LEU:HD12	1.87	0.55
1:E:358:THR:HG21	1:E:382:GLY:HA2	1.88	0.55
1:E:2653:LYS:HB2	1:E:2661:TRP:NE1	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:2653:LYS:HB2	1:J:2661:TRP:NE1	2.21	0.55
1:J:3040:THR:HA	1:J:3043:PHE:CD1	2.41	0.55
3:K:11:LEU:HG	3:K:124:THR:HB	1.87	0.55
1:B:2175:GLU:HG3	1:B:2228:MET:HB2	1.86	0.55
1:B:3040:THR:HA	1:B:3043:PHE:CD1	2.41	0.55
1:B:3455:GLU:O	1:B:3459:VAL:HG23	2.06	0.55
1:J:358:THR:HG21	1:J:382:GLY:HA2	1.88	0.55
1:J:2500:ALA:HB2	1:J:2553:TYR:HD1	1.71	0.55
1:J:3003:LEU:HB2	1:J:3004:PRO:HD3	1.88	0.55
1:J:3219:TYR:HD1	1:J:3227:ARG:HD2	1.71	0.55
3:M:11:LEU:HG	3:M:124:THR:HB	1.87	0.55
1:B:246:TYR:HB3	1:B:373:LYS:HA	1.88	0.55
1:B:462:GLU:HG2	1:B:3710:LEU:HD13	1.88	0.55
1:B:1477:GLY:HA2	1:B:1483:VAL:HA	1.88	0.55
1:B:3311:HIS:O	1:B:3315:LEU:HG	2.06	0.55
1:E:1477:GLY:HA2	1:E:1483:VAL:HA	1.89	0.55
1:E:1652:GLU:OE1	1:E:1656:ARG:NH1	2.40	0.55
1:E:2630:VAL:HG12	1:E:2682:ILE:HD11	1.88	0.55
1:E:3355:HIS:O	1:E:3359:ILE:HD12	2.06	0.55
1:G:3040:THR:HA	1:G:3043:PHE:CD1	2.41	0.55
1:G:3355:HIS:O	1:G:3359:ILE:HD12	2.06	0.55
1:J:462:GLU:HG2	1:J:3710:LEU:HD13	1.88	0.55
1:J:733:PRO:HG2	1:J:762:CYS:HB3	1.88	0.55
1:J:2182:ILE:O	1:J:2186:MET:HG2	2.05	0.55
1:E:1023:PRO:HD2	1:E:1026:LEU:HD12	1.87	0.55
1:G:358:THR:HG21	1:G:382:GLY:HA2	1.88	0.55
1:G:733:PRO:HG2	1:G:762:CYS:HB3	1.88	0.55
1:G:3971:GLY:O	1:G:3973:CYS:N	2.39	0.55
1:J:1652:GLU:OE1	1:J:1656:ARG:NH1	2.40	0.55
1:J:3040:THR:HA	1:J:3043:PHE:HD1	1.72	0.55
3:C:101:PRO:HG2	3:C:104:TYR:CE2	2.42	0.55
1:B:308:HIS:O	1:B:312:THR:OG1	2.24	0.55
1:B:909:ASN:HB2	1:B:964:GLY:H	1.71	0.55
1:B:2737:PRO:HD2	1:B:2891:LYS:HD3	1.88	0.55
1:B:3040:THR:HA	1:B:3043:PHE:HD1	1.72	0.55
1:B:3537:LYS:O	1:B:3540:TYR:HB2	2.06	0.55
1:B:3757:GLU:O	1:B:3761:GLN:HG2	2.06	0.55
1:E:2271:THR:HG23	1:E:2274:ASP:H	1.71	0.55
1:E:2368:LEU:HD11	1:E:2376:LEU:HD22	1.88	0.55
1:G:462:GLU:HG2	1:G:3710:LEU:HD13	1.88	0.55
1:J:2736:ASP:OD1	1:J:2736:ASP:N	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2476:ILE:HD12	1:B:2477:PRO:HD2	1.89	0.55
1:B:2653:LYS:HB2	1:B:2661:TRP:NE1	2.21	0.55
1:E:3040:THR:HA	1:E:3043:PHE:CD1	2.41	0.55
1:E:3110:LEU:HD11	1:E:3129:LEU:HD22	1.87	0.55
1:G:20:VAL:HG11	1:G:202:MET:HG3	1.88	0.55
1:G:3169:LEU:HD13	1:G:3197:LEU:HD11	1.87	0.55
1:J:909:ASN:HB2	1:J:964:GLY:H	1.71	0.55
3:F:11:LEU:HG	3:F:124:THR:HB	1.87	0.55
1:E:3219:TYR:HD1	1:E:3227:ARG:HD2	1.71	0.55
1:G:874:LEU:HA	1:G:877:ASN:ND2	2.22	0.55
1:G:2881:ASN:HA	1:G:2884:ASN:HD21	1.72	0.55
1:J:2737:PRO:HD2	1:J:2891:LYS:HD3	1.88	0.55
1:J:3467:MET:O	1:J:3471:THR:HG22	2.07	0.55
1:B:20:VAL:HG11	1:B:202:MET:HG3	1.88	0.55
1:B:3110:LEU:HD11	1:B:3129:LEU:HD22	1.87	0.55
1:E:3040:THR:HA	1:E:3043:PHE:HD1	1.72	0.55
1:G:1477:GLY:HA2	1:G:1483:VAL:HA	1.88	0.55
1:G:3040:THR:HA	1:G:3043:PHE:HD1	1.72	0.55
1:J:2630:VAL:HG12	1:J:2682:ILE:HD11	1.88	0.55
1:B:3948:LYS:NZ	1:B:4008:SER:O	2.40	0.55
1:B:4823:LEU:HD13	1:B:4826:ILE:HD11	1.88	0.55
1:E:2476:ILE:HD12	1:E:2477:PRO:HD2	1.89	0.55
1:J:3948:LYS:NZ	1:J:4008:SER:O	2.40	0.55
1:B:618:GLN:OE1	1:B:1678:ASN:ND2	2.38	0.55
1:E:2587:TYR:CZ	1:E:2591:ARG:HD2	2.42	0.55
1:E:3003:LEU:HB2	1:E:3004:PRO:HD3	1.88	0.55
1:G:2368:LEU:HD11	1:G:2376:LEU:HD22	1.88	0.55
1:G:3534:MET:SD	1:G:3537:LYS:NZ	2.75	0.55
1:J:308:HIS:O	1:J:312:THR:OG1	2.24	0.55
1:B:622:THR:HG23	1:B:626:LEU:HD12	1.89	0.54
1:B:900:ASN:ND2	3:C:61:ASP:OD1	2.37	0.54
1:B:3355:HIS:O	1:B:3359:ILE:HD12	2.06	0.54
1:E:3467:MET:O	1:E:3471:THR:HG22	2.07	0.54
1:J:3110:LEU:HD11	1:J:3129:LEU:HD22	1.87	0.54
1:J:4823:LEU:HD13	1:J:4826:ILE:HD11	1.88	0.54
3:F:30:SER:HB3	3:F:99:ARG:HB3	1.89	0.54
1:B:733:PRO:HG2	1:B:762:CYS:HB3	1.88	0.54
1:B:874:LEU:HA	1:B:877:ASN:ND2	2.22	0.54
1:E:909:ASN:HB2	1:E:964:GLY:H	1.71	0.54
1:G:2630:VAL:HG12	1:G:2682:ILE:HD11	1.88	0.54
1:G:2653:LYS:HB2	1:G:2661:TRP:NE1	2.21	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3219:TYR:HD1	1:G:3227:ARG:HD2	1.72	0.54
1:B:3313:ASN:HB3	1:B:3353:LEU:HD13	1.90	0.54
1:E:3169:LEU:HD13	1:E:3197:LEU:HD11	1.88	0.54
1:E:3971:GLY:O	1:E:3973:CYS:N	2.39	0.54
1:G:308:HIS:O	1:G:312:THR:OG1	2.24	0.54
1:G:909:ASN:HB2	1:G:964:GLY:H	1.71	0.54
1:B:358:THR:HG21	1:B:382:GLY:HA2	1.88	0.54
1:B:2271:THR:HG23	1:B:2274:ASP:H	1.71	0.54
1:B:3049:LEU:HB3	1:B:3057:PHE:HE1	1.73	0.54
1:E:622:THR:HG23	1:E:626:LEU:HD12	1.89	0.54
1:E:2572:THR:HB	1:E:2575:ARG:HB2	1.90	0.54
1:G:3467:MET:O	1:G:3471:THR:HG22	2.07	0.54
1:J:16:THR:HG22	1:J:99:ARG:H	1.71	0.54
1:J:4780:PHE:HA	1:J:4783:ILE:HG22	1.90	0.54
3:F:100:VAL:HG13	3:F:104:TYR:O	2.07	0.54
1:B:2587:TYR:CZ	1:B:2591:ARG:HD2	2.42	0.54
1:B:2881:ASN:HA	1:B:2884:ASN:HD21	1.72	0.54
1:B:3141:THR:OG1	1:B:3193:CYS:SG	2.56	0.54
1:E:359:TYR:CE1	1:E:385:ASP:HB2	2.43	0.54
1:E:874:LEU:HA	1:E:877:ASN:ND2	2.22	0.54
1:E:1780:PRO:O	2:D:42:ARG:NH1	2.40	0.54
1:E:3757:GLU:O	1:E:3761:GLN:HG2	2.06	0.54
1:G:275:ARG:HB2	1:G:278:GLN:HB2	1.89	0.54
1:G:3948:LYS:NZ	1:G:4008:SER:O	2.40	0.54
1:J:2587:TYR:CZ	1:J:2591:ARG:HD2	2.42	0.54
1:J:2881:ASN:HA	1:J:2884:ASN:HD21	1.72	0.54
1:B:2630:VAL:HG12	1:B:2682:ILE:HD11	1.88	0.54
1:B:3139:VAL:O	1:B:3143:LEU:HG	2.07	0.54
1:B:3809:ASN:OD1	1:B:3812:VAL:HG22	2.08	0.54
1:E:3948:LYS:NZ	1:E:4008:SER:O	2.40	0.54
1:G:2587:TYR:CZ	1:G:2591:ARG:HD2	2.42	0.54
1:G:2737:PRO:HD2	1:G:2891:LYS:HD3	1.88	0.54
1:G:3313:ASN:HB3	1:G:3353:LEU:HD13	1.90	0.54
1:G:4780:PHE:HA	1:G:4783:ILE:HG22	1.90	0.54
1:G:4823:LEU:HD13	1:G:4826:ILE:HD11	1.88	0.54
1:J:275:ARG:HB2	1:J:278:GLN:HB2	1.89	0.54
1:J:924:MET:HE1	3:K:106:PRO:HB2	1.90	0.54
1:J:2271:THR:HG23	1:J:2274:ASP:H	1.71	0.54
1:J:2476:ILE:HD12	1:J:2477:PRO:HD2	1.89	0.54
3:K:100:VAL:HG13	3:K:104:TYR:O	2.07	0.54
1:B:1652:GLU:OE1	1:B:1656:ARG:NH1	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3467:MET:O	1:B:3471:THR:HG22	2.07	0.54
1:E:2881:ASN:HA	1:E:2884:ASN:HD21	1.72	0.54
1:E:3809:ASN:OD1	1:E:3812:VAL:HG22	2.08	0.54
1:E:3893:GLU:HA	1:E:3967:GLU:OE2	2.08	0.54
1:G:1652:GLU:OE1	1:G:1656:ARG:NH1	2.40	0.54
1:G:3049:LEU:HB3	1:G:3057:PHE:HE1	1.73	0.54
1:G:3285:TRP:HE1	1:G:3306:ALA:HB3	1.73	0.54
1:J:2368:LEU:HD11	1:J:2376:LEU:HD22	1.88	0.54
3:C:100:VAL:HG13	3:C:104:TYR:O	2.07	0.54
1:B:2710:LEU:HD21	1:B:2955:PHE:CE2	2.43	0.54
1:B:3219:TYR:HD1	1:B:3227:ARG:HD2	1.72	0.54
1:B:4780:PHE:HA	1:B:4783:ILE:HG22	1.90	0.54
1:E:3230:LEU:HD23	1:E:3230:LEU:H	1.73	0.54
1:E:3313:ASN:HB3	1:E:3353:LEU:HD13	1.90	0.54
1:E:4780:PHE:HA	1:E:4783:ILE:HG22	1.90	0.54
1:J:3281:LEU:HD12	1:J:3341:PHE:CD1	2.43	0.54
1:J:3566:SER:HB3	1:J:3569:LEU:HD23	1.89	0.54
1:E:3566:SER:HB3	1:E:3569:LEU:HD23	1.89	0.54
1:E:4693:GLY:O	1:E:4700:GLN:NE2	2.41	0.54
1:G:4134:GLU:HB3	1:G:4135:PRO:HD3	1.90	0.54
1:G:4693:GLY:O	1:G:4700:GLN:NE2	2.41	0.54
1:J:874:LEU:HA	1:J:877:ASN:ND2	2.22	0.54
1:J:1477:GLY:HA2	1:J:1483:VAL:HA	1.89	0.54
1:J:2325:PRO:O	1:J:2329:GLU:HG2	2.08	0.54
1:J:2638:LYS:HB2	1:J:2639:MET:HE1	1.89	0.54
1:J:3049:LEU:HB3	1:J:3057:PHE:HE1	1.73	0.54
1:B:275:ARG:HB2	1:B:278:GLN:HB2	1.89	0.54
1:B:3230:LEU:HD23	1:B:3230:LEU:H	1.73	0.54
1:B:3566:SER:HB3	1:B:3569:LEU:HD23	1.89	0.54
1:E:3139:VAL:O	1:E:3143:LEU:HG	2.07	0.54
1:E:4823:LEU:HD13	1:E:4826:ILE:HD11	1.88	0.54
1:G:618:GLN:OE1	1:G:1678:ASN:ND2	2.38	0.54
1:G:3809:ASN:OD1	1:G:3812:VAL:HG22	2.08	0.54
1:B:3579:LEU:HD12	1:B:3580:PRO:HD2	1.90	0.53
1:B:4693:GLY:O	1:B:4700:GLN:NE2	2.41	0.53
1:E:3579:LEU:HD12	1:E:3580:PRO:HD2	1.90	0.53
1:G:3566:SER:HB3	1:G:3569:LEU:HD23	1.89	0.53
1:J:2710:LEU:HD21	1:J:2955:PHE:CE2	2.43	0.53
1:B:2368:LEU:HD11	1:B:2376:LEU:HD22	1.88	0.53
1:E:3049:LEU:HB3	1:E:3057:PHE:HE1	1.73	0.53
1:G:3139:VAL:O	1:G:3143:LEU:HG	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3230:LEU:HD23	1:G:3230:LEU:H	1.73	0.53
3:K:101:PRO:HG2	3:K:104:TYR:CE2	2.43	0.53
1:E:275:ARG:HB2	1:E:278:GLN:HB2	1.89	0.53
1:E:2011:HIS:O	1:E:2011:HIS:ND1	2.41	0.53
1:E:2325:PRO:O	1:E:2329:GLU:HG2	2.08	0.53
1:G:231:LEU:O	1:G:260:TRP:NE1	2.41	0.53
1:G:622:THR:HG23	1:G:626:LEU:HD12	1.89	0.53
1:G:2710:LEU:HD21	1:G:2955:PHE:CE2	2.43	0.53
3:K:13:GLN:OE1	3:K:13:GLN:N	2.37	0.53
1:B:2238:TYR:O	1:B:2242:ILE:HG12	2.09	0.53
1:E:733:PRO:HG2	1:E:762:CYS:HB3	1.88	0.53
1:E:3281:LEU:HD12	1:E:3341:PHE:CD1	2.43	0.53
1:G:2476:ILE:HD12	1:G:2477:PRO:HD2	1.89	0.53
1:G:2572:THR:HB	1:G:2575:ARG:HB2	1.90	0.53
1:J:622:THR:HG23	1:J:626:LEU:HD12	1.89	0.53
1:J:4693:GLY:O	1:J:4700:GLN:NE2	2.41	0.53
1:B:4848:VAL:HG11	1:B:4887:MET:HG2	1.91	0.53
1:G:3281:LEU:HD12	1:G:3341:PHE:CD1	2.43	0.53
1:G:3368:ARG:HH21	1:G:3401:LEU:HD23	1.74	0.53
1:G:3768:SER:HA	1:G:3771:HIS:CE1	2.44	0.53
3:F:101:PRO:HG2	3:F:104:TYR:CE2	2.43	0.53
1:B:2572:THR:HB	1:B:2575:ARG:HB2	1.90	0.53
1:E:1676:LEU:HD22	1:E:2167:ILE:HD12	1.90	0.53
1:E:2638:LYS:HB2	1:E:2639:MET:HE1	1.89	0.53
1:E:2710:LEU:HD21	1:E:2955:PHE:CE2	2.43	0.53
1:G:2238:TYR:O	1:G:2242:ILE:HG12	2.09	0.53
1:J:2572:THR:HB	1:J:2575:ARG:HB2	1.89	0.53
1:B:2881:ASN:HA	1:B:2884:ASN:ND2	2.24	0.53
1:E:3285:TRP:HE1	1:E:3306:ALA:HB3	1.73	0.53
1:E:3411:LEU:H	1:E:3411:LEU:HD12	1.74	0.53
1:G:4848:VAL:HG11	1:G:4887:MET:HG2	1.91	0.53
1:J:2881:ASN:HA	1:J:2884:ASN:ND2	2.24	0.53
1:J:3230:LEU:HD23	1:J:3230:LEU:H	1.73	0.53
1:J:3313:ASN:HB3	1:J:3353:LEU:HD13	1.90	0.53
2:A:87:HIS:HD2	2:A:91:ILE:HD12	1.74	0.53
3:C:13:GLN:OE1	3:C:13:GLN:N	2.37	0.53
1:B:3285:TRP:HE1	1:B:3306:ALA:HB3	1.73	0.53
1:G:1676:LEU:HD22	1:G:2167:ILE:HD12	1.90	0.53
1:J:2238:TYR:O	1:J:2242:ILE:HG12	2.09	0.53
1:J:2960:LEU:HB3	1:J:3038:MET:HE1	1.90	0.53
1:J:3139:VAL:O	1:J:3143:LEU:HG	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3368:ARG:HH21	1:B:3401:LEU:HD23	1.74	0.53
1:B:3768:SER:HA	1:B:3771:HIS:CE1	2.44	0.53
1:B:4134:GLU:HB3	1:B:4135:PRO:HD3	1.90	0.53
1:E:308:HIS:O	1:E:312:THR:OG1	2.24	0.53
1:G:2325:PRO:O	1:G:2329:GLU:HG2	2.08	0.53
1:J:3411:LEU:H	1:J:3411:LEU:HD12	1.74	0.53
1:J:3555:ASN:O	1:J:3558:HIS:ND1	2.37	0.53
1:J:4134:GLU:HB3	1:J:4135:PRO:HD3	1.90	0.53
3:M:100:VAL:HG13	3:M:104:TYR:O	2.09	0.53
1:B:231:LEU:O	1:B:260:TRP:NE1	2.41	0.53
1:J:3287:ARG:HG2	1:J:3294:PRO:HD2	1.90	0.53
2:D:87:HIS:HD2	2:D:91:ILE:HD12	1.74	0.53
2:H:87:HIS:HD2	2:H:91:ILE:HD12	1.74	0.53
3:F:105:ASN:ND2	3:F:107:TRP:HD1	2.06	0.53
1:B:162:LYS:NZ	1:G:3987:ASP:OD2	2.32	0.52
1:B:369:LEU:HB2	1:B:371:VAL:HG23	1.90	0.52
1:E:2238:TYR:O	1:E:2242:ILE:HG12	2.09	0.52
1:E:2881:ASN:HA	1:E:2884:ASN:ND2	2.24	0.52
1:E:3768:SER:HA	1:E:3771:HIS:CE1	2.44	0.52
1:G:2573:GLU:OE1	1:G:2573:GLU:N	2.42	0.52
1:J:2206:THR:O	1:J:2210:VAL:HG23	2.09	0.52
1:J:3579:LEU:HD12	1:J:3580:PRO:HD2	1.90	0.52
3:M:104:TYR:HE1	3:M:106:PRO:HG3	1.74	0.52
1:B:3281:LEU:HD12	1:B:3341:PHE:CD1	2.43	0.52
1:E:979:PRO:O	1:E:983:THR:HG23	2.10	0.52
1:E:3290:GLU:HG3	1:E:3307:VAL:HG22	1.92	0.52
1:E:3691:GLU:HG2	1:E:3692:GLU:HG3	1.92	0.52
1:E:4848:VAL:HG11	1:E:4887:MET:HG2	1.91	0.52
1:G:2206:THR:O	1:G:2210:VAL:HG23	2.09	0.52
1:G:3411:LEU:H	1:G:3411:LEU:HD12	1.74	0.52
1:J:3290:GLU:HG3	1:J:3307:VAL:HG22	1.92	0.52
1:J:3369:ALA:HA	1:J:3401:LEU:HD11	1.91	0.52
1:J:3809:ASN:OD1	1:J:3812:VAL:HG22	2.08	0.52
1:J:3893:GLU:HA	1:J:3967:GLU:OE2	2.08	0.52
1:J:4848:VAL:HG11	1:J:4887:MET:HG2	1.91	0.52
1:B:3144:PHE:CD2	1:B:3197:LEU:HB3	2.44	0.52
1:B:3287:ARG:HG2	1:B:3294:PRO:HD2	1.90	0.52
1:E:411:TYR:HB2	1:E:486:LEU:HD21	1.92	0.52
1:E:2206:THR:O	1:E:2210:VAL:HG23	2.09	0.52
1:E:2968:ASP:O	1:E:2971:GLN:HG2	2.10	0.52
1:J:2011:HIS:ND1	1:J:2011:HIS:O	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:3310:ASP:HA	1:J:3313:ASN:HD21	1.75	0.52
1:J:4069:LYS:HD2	1:J:4133:GLN:HG3	1.91	0.52
2:I:87:HIS:HD2	2:I:91:ILE:HD12	1.74	0.52
1:B:2206:THR:O	1:B:2210:VAL:HG23	2.09	0.52
1:B:2325:PRO:O	1:B:2329:GLU:HG2	2.08	0.52
1:B:3442:PHE:CD2	1:B:3514:LEU:HD11	2.44	0.52
1:G:3144:PHE:CD2	1:G:3197:LEU:HB3	2.45	0.52
1:J:1623:ARG:NE	1:J:1623:ARG:O	2.43	0.52
1:J:3768:SER:HA	1:J:3771:HIS:CE1	2.44	0.52
1:J:3959:LYS:HG3	1:J:4022:ASP:OD2	2.10	0.52
1:J:4090:LYS:HZ2	1:J:4112:LEU:HD23	1.73	0.52
1:B:3411:LEU:H	1:B:3411:LEU:HD12	1.74	0.52
1:B:3416:VAL:HB	1:B:3516:LYS:HZ3	1.73	0.52
1:B:4090:LYS:HZ2	1:B:4112:LEU:HD23	1.74	0.52
1:E:1623:ARG:NE	1:E:1623:ARG:O	2.43	0.52
1:E:3144:PHE:CD2	1:E:3197:LEU:HB3	2.44	0.52
1:J:2573:GLU:OE1	1:J:2573:GLU:N	2.42	0.52
1:J:3368:ARG:HH21	1:J:3401:LEU:HD23	1.74	0.52
1:B:1676:LEU:HD22	1:B:2167:ILE:HD12	1.90	0.52
1:B:2710:LEU:HD21	1:B:2955:PHE:HE2	1.75	0.52
1:B:3310:ASP:HA	1:B:3313:ASN:HD21	1.75	0.52
1:B:3691:GLU:HG2	1:B:3692:GLU:HG3	1.92	0.52
1:E:595:ARG:HH22	1:E:1642:PRO:HD2	1.75	0.52
1:E:2573:GLU:OE1	1:E:2573:GLU:N	2.42	0.52
1:E:3310:ASP:HA	1:E:3313:ASN:HD21	1.75	0.52
1:E:3959:LYS:HG3	1:E:4022:ASP:OD2	2.10	0.52
1:E:4069:LYS:HD2	1:E:4133:GLN:HG3	1.91	0.52
1:G:2011:HIS:O	1:G:2011:HIS:ND1	2.41	0.52
1:G:2881:ASN:HA	1:G:2884:ASN:ND2	2.24	0.52
1:G:3442:PHE:CD2	1:G:3514:LEU:HD11	2.44	0.52
1:J:979:PRO:O	1:J:983:THR:HG23	2.10	0.52
1:J:2871:LEU:HG	1:J:2927:LEU:HD11	1.91	0.52
1:J:4670:ILE:O	1:J:4674:GLU:HG3	2.10	0.52
1:G:979:PRO:O	1:G:983:THR:HG23	2.09	0.52
1:G:3310:ASP:HA	1:G:3313:ASN:HD21	1.75	0.52
1:J:1676:LEU:HD22	1:J:2167:ILE:HD12	1.90	0.52
1:J:3144:PHE:CD2	1:J:3197:LEU:HB3	2.45	0.52
1:J:3285:TRP:HE1	1:J:3306:ALA:HB3	1.73	0.52
1:J:3442:PHE:CD2	1:J:3514:LEU:HD11	2.44	0.52
1:J:3691:GLU:HG2	1:J:3692:GLU:HG3	1.92	0.52
1:E:3555:ASN:O	1:E:3558:HIS:ND1	2.37	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4134:GLU:HB3	1:E:4135:PRO:HD3	1.90	0.52
1:G:1958:LEU:HD23	1:G:2138:LEU:HD21	1.92	0.52
1:G:3287:ARG:HG2	1:G:3294:PRO:HD2	1.90	0.52
1:G:3579:LEU:HD12	1:G:3580:PRO:HD2	1.90	0.52
1:J:3137:LEU:O	1:J:3141:THR:OG1	2.28	0.52
2:I:68:LEU:HD13	2:I:106:LEU:HB2	1.92	0.52
3:C:14:ALA:HA	3:C:85:LEU:HB2	1.92	0.52
3:F:14:ALA:HA	3:F:85:LEU:HB2	1.92	0.52
3:K:14:ALA:HA	3:K:85:LEU:HB2	1.92	0.52
1:B:291:LEU:HD11	1:B:299:LEU:HD12	1.92	0.52
1:B:1958:LEU:HD23	1:B:2138:LEU:HD21	1.92	0.52
1:E:3293:PRO:HD2	1:E:3296:LEU:HD22	1.92	0.52
1:E:3442:PHE:CD2	1:E:3514:LEU:HD11	2.44	0.52
1:G:2710:LEU:HD21	1:G:2955:PHE:HE2	1.75	0.52
1:G:2968:ASP:O	1:G:2971:GLN:HG2	2.10	0.52
1:G:3893:GLU:HA	1:G:3967:GLU:OE2	2.08	0.52
1:J:3137:LEU:HB3	1:J:3138:PRO:HD3	1.92	0.52
3:M:14:ALA:HA	3:M:85:LEU:HB2	1.92	0.52
1:B:411:TYR:HB2	1:B:486:LEU:HD21	1.92	0.52
1:B:867:LEU:HA	1:B:871:ARG:HG2	1.92	0.52
1:B:2573:GLU:OE1	1:B:2573:GLU:N	2.42	0.52
1:B:2871:LEU:HG	1:B:2927:LEU:HD11	1.91	0.52
1:B:3137:LEU:HB3	1:B:3138:PRO:HD3	1.92	0.52
1:B:3290:GLU:HG3	1:B:3307:VAL:HG22	1.92	0.52
1:E:3287:ARG:HG2	1:E:3294:PRO:HD2	1.90	0.52
1:G:2751:LEU:O	1:G:2755:ILE:HG12	2.10	0.52
1:G:4670:ILE:O	1:G:4674:GLU:HG3	2.10	0.52
1:J:595:ARG:HH22	1:J:1642:PRO:HD2	1.75	0.52
1:B:881:LEU:O	1:B:885:THR:HG23	2.10	0.51
1:B:2968:ASP:O	1:B:2971:GLN:HG2	2.10	0.51
1:E:3368:ARG:HH21	1:E:3401:LEU:HD23	1.74	0.51
1:E:4137:ARG:NH2	1:E:4196:GLU:OE2	2.43	0.51
1:E:5013:MET:HG2	1:E:5018:CYS:HB2	1.92	0.51
1:G:595:ARG:HH22	1:G:1642:PRO:HD2	1.75	0.51
1:G:2765:LYS:HZ2	1:G:2860:PRO:HA	1.74	0.51
1:G:3369:ALA:HA	1:G:3401:LEU:HD11	1.91	0.51
1:J:510:GLU:OE1	1:J:510:GLU:N	2.43	0.51
1:J:2751:LEU:O	1:J:2755:ILE:HG12	2.10	0.51
2:A:68:LEU:HD13	2:A:106:LEU:HB2	1.92	0.51
1:B:595:ARG:HH22	1:B:1642:PRO:HD2	1.75	0.51
1:B:858:THR:HG21	1:B:931:THR:HG23	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3293:PRO:HD2	1:B:3296:LEU:HD22	1.92	0.51
1:E:291:LEU:HD11	1:E:299:LEU:HD12	1.92	0.51
1:G:1623:ARG:NE	1:G:1623:ARG:O	2.43	0.51
1:G:3037:GLU:HG2	1:G:3088:VAL:HG21	1.93	0.51
1:G:3290:GLU:HG3	1:G:3307:VAL:HG22	1.92	0.51
1:J:231:LEU:O	1:J:260:TRP:NE1	2.41	0.51
1:J:618:GLN:OE1	1:J:1678:ASN:ND2	2.38	0.51
1:J:2968:ASP:O	1:J:2971:GLN:HG2	2.10	0.51
3:C:39:GLN:OE1	3:C:45:ARG:NH2	2.39	0.51
1:B:3037:GLU:HG2	1:B:3088:VAL:HG21	1.93	0.51
1:B:3369:ALA:HA	1:B:3401:LEU:HD11	1.91	0.51
1:E:2767:ALA:HB2	1:E:2791:LEU:HD11	1.92	0.51
1:G:266:ARG:HH12	1:G:273:HIS:HE1	1.58	0.51
1:G:867:LEU:HA	1:G:871:ARG:HG2	1.92	0.51
1:G:3959:LYS:HG3	1:G:4022:ASP:OD2	2.10	0.51
1:J:881:LEU:O	1:J:885:THR:HG23	2.10	0.51
2:H:30:LEU:HD23	2:H:36:PHE:HE2	1.75	0.51
2:H:68:LEU:HD13	2:H:106:LEU:HB2	1.92	0.51
3:M:69:ILE:HB	3:M:80:LEU:HD13	1.92	0.51
1:B:758:ARG:HH21	1:B:802:PHE:HB2	1.75	0.51
1:E:758:ARG:HH21	1:E:802:PHE:HB2	1.76	0.51
1:E:3043:PHE:HE2	1:E:3072:ALA:HA	1.76	0.51
1:G:1000:ARG:NH2	3:M:115:ASP:O	2.43	0.51
1:J:858:THR:HG21	1:J:931:THR:HG23	1.92	0.51
2:A:30:LEU:HD23	2:A:36:PHE:HE2	1.75	0.51
1:B:979:PRO:O	1:B:983:THR:HG23	2.10	0.51
1:B:4069:LYS:HD2	1:B:4133:GLN:HG3	1.91	0.51
1:E:1958:LEU:HD23	1:E:2138:LEU:HD21	1.92	0.51
1:E:2871:LEU:HG	1:E:2927:LEU:HD11	1.91	0.51
1:E:3137:LEU:O	1:E:3141:THR:OG1	2.28	0.51
1:E:3369:ALA:HA	1:E:3401:LEU:HD11	1.91	0.51
1:G:881:LEU:O	1:G:885:THR:HG23	2.10	0.51
1:G:2767:ALA:HB2	1:G:2791:LEU:HD11	1.92	0.51
1:G:3691:GLU:HG2	1:G:3692:GLU:HG3	1.92	0.51
1:J:758:ARG:HH21	1:J:802:PHE:HB2	1.76	0.51
1:J:3293:PRO:HD2	1:J:3296:LEU:HD22	1.92	0.51
1:J:4761:PRO:HB2	1:J:4766:THR:HG21	1.92	0.51
1:B:1623:ARG:NE	1:B:1623:ARG:O	2.43	0.51
1:B:2767:ALA:HB2	1:B:2791:LEU:HD11	1.92	0.51
1:E:4761:PRO:HB2	1:E:4766:THR:HG21	1.92	0.51
1:G:411:TYR:HB2	1:G:486:LEU:HD21	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3137:LEU:O	1:G:3141:THR:OG1	2.28	0.51
1:G:4137:ARG:NH2	1:G:4196:GLU:OE2	2.43	0.51
1:J:266:ARG:HH12	1:J:273:HIS:HE1	1.58	0.51
1:J:3097:GLU:HA	1:J:3167:ARG:HH12	1.76	0.51
1:J:3529:ASP:O	1:J:3533:ILE:HG13	2.11	0.51
3:M:13:GLN:OE1	3:M:13:GLN:N	2.37	0.51
1:E:25:SER:HA	1:E:34:LYS:HA	1.93	0.51
1:E:881:LEU:O	1:E:885:THR:HG23	2.10	0.51
1:E:2751:LEU:O	1:E:2755:ILE:HG12	2.10	0.51
1:E:4936:ILE:HD11	1:J:4931:ILE:HG12	1.92	0.51
1:G:291:LEU:HD11	1:G:299:LEU:HD12	1.93	0.51
1:G:2496:PRO:HG3	1:G:2550:LEU:HD23	1.93	0.51
1:G:2871:LEU:HG	1:G:2927:LEU:HD11	1.91	0.51
1:G:3195:ALA:HA	1:G:3279:SER:HA	1.93	0.51
1:J:25:SER:HA	1:J:34:LYS:HA	1.93	0.51
1:J:291:LEU:HD11	1:J:299:LEU:HD12	1.93	0.51
1:J:411:TYR:HB2	1:J:486:LEU:HD21	1.92	0.51
1:J:3043:PHE:HE2	1:J:3072:ALA:HA	1.76	0.51
1:J:3163:VAL:O	1:J:3167:ARG:HG2	2.11	0.51
1:J:5013:MET:HG2	1:J:5018:CYS:HB2	1.92	0.51
3:K:105:ASN:ND2	3:K:107:TRP:HD1	2.06	0.51
1:B:1110:ARG:NH2	1:B:1112:ASP:OD1	2.44	0.51
1:B:1249:PRO:HG2	1:B:1252:HIS:HB2	1.92	0.51
1:B:1780:PRO:O	2:A:42:ARG:NH1	2.43	0.51
1:B:2686:LEU:HG	1:B:2997:PHE:CE2	2.46	0.51
1:B:3137:LEU:O	1:B:3141:THR:OG1	2.28	0.51
1:E:3753:PHE:HZ	1:E:4718:LYS:HD3	1.76	0.51
1:G:1249:PRO:HG2	1:G:1252:HIS:HB2	1.92	0.51
1:G:3222:LYS:HB3	1:G:3226:GLU:HB2	1.93	0.51
1:G:4069:LYS:HD2	1:G:4133:GLN:HG3	1.91	0.51
1:J:1249:PRO:HG2	1:J:1252:HIS:HB2	1.92	0.51
1:J:3030:HIS:HB2	1:J:3035:GLU:HG2	1.93	0.51
1:J:3446:SER:HA	1:J:3452:LYS:HE3	1.93	0.51
2:D:68:LEU:HD13	2:D:106:LEU:HB2	1.92	0.51
1:B:25:SER:HA	1:B:34:LYS:HA	1.93	0.51
1:B:1011:GLN:OE1	1:B:1020:ARG:NH2	2.35	0.51
1:B:2495:VAL:HG12	1:B:2497:ASP:H	1.76	0.51
1:B:3753:PHE:HZ	1:B:4718:LYS:HD3	1.76	0.51
1:B:4137:ARG:NH2	1:B:4196:GLU:OE2	2.43	0.51
1:E:1110:ARG:NH2	1:E:1112:ASP:OD1	2.44	0.51
1:E:4670:ILE:O	1:E:4674:GLU:HG3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:25:SER:HA	1:G:34:LYS:HA	1.93	0.51
1:G:866:HIS:HB3	1:G:929:LEU:HD13	1.93	0.51
1:G:2110:TYR:HB2	1:G:3694:LYS:HA	1.93	0.51
1:G:3293:PRO:HD2	1:G:3296:LEU:HD22	1.92	0.51
1:G:3753:PHE:HZ	1:G:4718:LYS:HD3	1.76	0.51
1:J:1011:GLN:OE1	1:J:1020:ARG:NH2	2.35	0.51
1:J:2710:LEU:HD21	1:J:2955:PHE:HE2	1.75	0.51
1:J:4749:GLU:HG3	1:J:4753:HIS:CE1	2.46	0.51
3:F:69:ILE:HB	3:F:80:LEU:HD13	1.92	0.51
1:B:3893:GLU:HA	1:B:3967:GLU:OE2	2.11	0.51
1:E:924:MET:HE1	3:F:106:PRO:HB2	1.93	0.51
1:E:2679:PHE:HB2	1:E:2706:ILE:HG21	1.93	0.51
1:E:3529:ASP:O	1:E:3533:ILE:HG13	2.11	0.51
1:E:4749:GLU:HG3	1:E:4753:HIS:CE1	2.46	0.51
1:G:758:ARG:HH21	1:G:802:PHE:HB2	1.75	0.51
1:G:858:THR:HG21	1:G:931:THR:HG23	1.92	0.51
1:G:1110:ARG:NH2	1:G:1112:ASP:OD1	2.44	0.51
1:G:3030:HIS:HB2	1:G:3035:GLU:HG2	1.93	0.51
1:G:5013:MET:HG2	1:G:5018:CYS:HB2	1.92	0.51
1:J:1958:LEU:HD23	1:J:2138:LEU:HD21	1.92	0.51
1:J:2496:PRO:HG3	1:J:2550:LEU:HD23	1.93	0.51
3:M:2:VAL:HG22	3:M:27:SER:H	1.76	0.51
1:B:2679:PHE:HB2	1:B:2706:ILE:HG21	1.93	0.50
1:E:858:THR:HG21	1:E:931:THR:HG23	1.93	0.50
1:J:2686:LEU:HG	1:J:2997:PHE:CE2	2.46	0.50
1:B:866:HIS:HB3	1:B:929:LEU:HD13	1.93	0.50
1:B:2751:LEU:O	1:B:2755:ILE:HG12	2.10	0.50
1:B:3097:GLU:HA	1:B:3167:ARG:HH12	1.76	0.50
1:B:4670:ILE:O	1:B:4674:GLU:HG3	2.10	0.50
1:E:618:GLN:OE1	1:E:1678:ASN:ND2	2.38	0.50
1:E:867:LEU:HA	1:E:871:ARG:HG2	1.92	0.50
1:E:2686:LEU:HG	1:E:2997:PHE:CE2	2.46	0.50
1:E:2710:LEU:HD21	1:E:2955:PHE:HE2	1.75	0.50
1:E:3030:HIS:HB2	1:E:3035:GLU:HG2	1.93	0.50
1:E:3037:GLU:HG2	1:E:3088:VAL:HG21	1.93	0.50
1:G:2244:ARG:NH2	1:G:2283:ASN:OD1	2.44	0.50
1:G:4761:PRO:HB2	1:G:4766:THR:HG21	1.92	0.50
1:J:2110:TYR:HB2	1:J:3694:LYS:HA	1.93	0.50
2:I:30:LEU:HD23	2:I:36:PHE:HE2	1.75	0.50
3:C:69:ILE:HB	3:C:80:LEU:HD13	1.92	0.50
1:B:2244:ARG:NH2	1:B:2283:ASN:OD1	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2495:VAL:HG12	1:E:2497:ASP:H	1.76	0.50
1:E:3097:GLU:HA	1:E:3167:ARG:HH12	1.76	0.50
1:E:3137:LEU:HB3	1:E:3138:PRO:HD3	1.92	0.50
1:E:3222:LYS:HB3	1:E:3226:GLU:HB2	1.93	0.50
1:G:657:THR:HB	1:G:1021:LEU:HD13	1.93	0.50
1:G:2495:VAL:HG12	1:G:2497:ASP:H	1.76	0.50
1:G:3446:SER:HA	1:G:3452:LYS:HE3	1.93	0.50
1:G:3604:TYR:O	1:G:3608:GLN:HG2	2.12	0.50
1:J:2767:ALA:HB2	1:J:2791:LEU:HD11	1.92	0.50
1:J:3037:GLU:HG2	1:J:3088:VAL:HG21	1.93	0.50
1:J:3354:LEU:O	1:J:3358:PHE:HD1	1.94	0.50
1:J:3604:TYR:O	1:J:3608:GLN:HG2	2.12	0.50
1:J:3753:PHE:HZ	1:J:4718:LYS:HD3	1.76	0.50
2:A:16:PRO:HB3	2:A:106:LEU:HD11	1.94	0.50
1:B:3555:ASN:O	1:B:3558:HIS:ND1	2.36	0.50
1:B:4761:PRO:HB2	1:B:4766:THR:HG21	1.92	0.50
1:E:3435:PHE:CZ	1:E:3602:VAL:HG21	2.47	0.50
1:G:3043:PHE:HE2	1:G:3072:ALA:HA	1.76	0.50
1:J:867:LEU:HA	1:J:871:ARG:HG2	1.92	0.50
1:J:2679:PHE:HB2	1:J:2706:ILE:HG21	1.93	0.50
3:M:101:PRO:HG2	3:M:104:TYR:CE2	2.46	0.50
1:B:3043:PHE:HE2	1:B:3072:ALA:HA	1.76	0.50
1:E:926:GLY:O	1:E:930:LYS:HG3	2.11	0.50
1:G:2336:ARG:HB2	1:G:2435:ARG:HD2	1.93	0.50
1:G:3219:TYR:HA	1:G:3227:ARG:HD3	1.94	0.50
1:G:4749:GLU:HG3	1:G:4753:HIS:CE1	2.46	0.50
1:J:866:HIS:HB3	1:J:929:LEU:HD13	1.93	0.50
1:J:2495:VAL:HG12	1:J:2497:ASP:H	1.76	0.50
1:J:3222:LYS:HB3	1:J:3226:GLU:HB2	1.93	0.50
2:H:16:PRO:HB3	2:H:106:LEU:HD11	1.94	0.50
3:C:105:ASN:ND2	3:C:107:TRP:HD1	2.08	0.50
3:K:69:ILE:HB	3:K:80:LEU:HD13	1.92	0.50
1:B:510:GLU:OE1	1:B:510:GLU:N	2.43	0.50
1:B:2496:PRO:HG3	1:B:2550:LEU:HD23	1.93	0.50
1:B:2970:SER:HA	1:B:2973:PHE:CE2	2.47	0.50
1:B:3529:ASP:O	1:B:3533:ILE:HG13	2.11	0.50
1:B:3547:GLU:O	1:B:3551:GLU:HG2	2.12	0.50
1:B:5013:MET:HG2	1:B:5018:CYS:HB2	1.92	0.50
1:E:231:LEU:O	1:E:260:TRP:NE1	2.41	0.50
1:E:1249:PRO:HG2	1:E:1252:HIS:HB2	1.92	0.50
1:E:3163:VAL:O	1:E:3167:ARG:HG2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3195:ALA:HA	1:E:3279:SER:HA	1.93	0.50
1:E:3229:ILE:H	1:E:3229:ILE:HD12	1.77	0.50
1:E:3604:TYR:O	1:E:3608:GLN:HG2	2.12	0.50
1:G:2679:PHE:HB2	1:G:2706:ILE:HG21	1.93	0.50
1:G:3163:VAL:O	1:G:3167:ARG:HG2	2.11	0.50
1:B:926:GLY:O	1:B:930:LYS:HG3	2.12	0.50
1:B:3354:LEU:O	1:B:3358:PHE:HD1	1.94	0.50
1:B:3427:PRO:HD3	1:B:3579:LEU:HD21	1.94	0.50
1:E:2970:SER:HA	1:E:2973:PHE:CE2	2.47	0.50
1:E:3427:PRO:HD3	1:E:3579:LEU:HD21	1.94	0.50
1:G:436:LEU:H	1:G:436:LEU:HD12	1.77	0.50
1:G:2686:LEU:HG	1:G:2997:PHE:CE2	2.46	0.50
1:G:2960:LEU:HB3	1:G:3038:MET:CE	2.42	0.50
1:G:3097:GLU:HA	1:G:3167:ARG:HH12	1.76	0.50
1:G:3427:PRO:HD3	1:G:3579:LEU:HD21	1.94	0.50
1:G:3529:ASP:O	1:G:3533:ILE:HG13	2.10	0.50
1:J:657:THR:HB	1:J:1021:LEU:HD13	1.93	0.50
1:J:2336:ARG:HB2	1:J:2435:ARG:HD2	1.93	0.50
1:J:2388:GLU:O	1:J:2390:PRO:HD3	2.12	0.50
1:J:3195:ALA:HA	1:J:3279:SER:HA	1.93	0.50
1:J:3280:TYR:HE1	1:J:3283:ARG:HH21	1.60	0.50
2:D:30:LEU:HD23	2:D:36:PHE:HE2	1.75	0.50
1:B:2110:TYR:HB2	1:B:3694:LYS:HA	1.93	0.50
1:B:3222:LYS:HB3	1:B:3226:GLU:HB2	1.93	0.50
1:B:3229:ILE:H	1:B:3229:ILE:HD12	1.77	0.50
1:E:3333:THR:HG22	1:E:3337:ARG:CZ	2.42	0.50
1:E:4230:LYS:NZ	1:E:4231:MET:SD	2.84	0.50
1:G:3137:LEU:HB3	1:G:3138:PRO:HD3	1.92	0.50
1:J:3229:ILE:H	1:J:3229:ILE:HD12	1.77	0.50
1:J:4137:ARG:NH2	1:J:4196:GLU:OE2	2.43	0.50
3:F:2:VAL:HG22	3:F:27:SER:H	1.76	0.50
3:M:39:GLN:OE1	3:M:45:ARG:NH2	2.39	0.50
1:B:3163:VAL:O	1:B:3167:ARG:HG2	2.11	0.50
1:B:3959:LYS:HG3	1:B:4022:ASP:OD2	2.11	0.50
1:B:4749:GLU:HG3	1:B:4753:HIS:CE1	2.46	0.50
1:E:657:THR:HB	1:E:1021:LEU:HD13	1.93	0.50
1:G:926:GLY:O	1:G:930:LYS:HG3	2.11	0.50
1:G:4828:SER:O	1:G:4832:HIS:HB3	2.12	0.50
1:J:883:ALA:HA	1:J:886:ARG:HE	1.77	0.50
1:B:3219:TYR:HA	1:B:3227:ARG:HD3	1.94	0.49
1:E:794:GLY:HA3	1:E:812:HIS:HB3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:246:TYR:CD1	1:G:373:LYS:HE3	2.47	0.49
1:G:2388:GLU:O	1:G:2390:PRO:HD3	2.12	0.49
1:G:2638:LYS:HB2	1:G:2639:MET:HE1	1.93	0.49
1:J:1110:ARG:NH2	1:J:1112:ASP:OD1	2.44	0.49
1:J:2454:ARG:HD2	1:J:2458:ARG:HH21	1.77	0.49
1:J:3427:PRO:HD3	1:J:3579:LEU:HD21	1.94	0.49
1:J:3435:PHE:CZ	1:J:3602:VAL:HG21	2.47	0.49
1:B:436:LEU:H	1:B:436:LEU:HD12	1.77	0.49
1:B:657:THR:HB	1:B:1021:LEU:HD13	1.94	0.49
1:B:3534:MET:SD	1:B:3537:LYS:NZ	2.75	0.49
1:B:4828:SER:O	1:B:4832:HIS:HB3	2.12	0.49
1:E:866:HIS:HB3	1:E:929:LEU:HD13	1.93	0.49
1:E:2110:TYR:HB2	1:E:3694:LYS:HA	1.93	0.49
1:G:3229:ILE:H	1:G:3229:ILE:HD12	1.77	0.49
1:G:3280:TYR:HE1	1:G:3283:ARG:HH21	1.60	0.49
1:G:3547:GLU:O	1:G:3551:GLU:HG2	2.12	0.49
1:J:4731:ILE:HG22	1:J:4732:PHE:CD2	2.48	0.49
1:B:2960:LEU:HB3	1:B:3038:MET:CE	2.42	0.49
1:B:3195:ALA:HA	1:B:3279:SER:HA	1.93	0.49
1:E:510:GLU:N	1:E:510:GLU:OE1	2.43	0.49
1:E:2496:PRO:HG3	1:E:2550:LEU:HD23	1.93	0.49
1:E:2578:MET:SD	1:E:2578:MET:N	2.86	0.49
1:G:710:ASP:OD1	1:G:711:LEU:N	2.46	0.49
1:G:883:ALA:HA	1:G:886:ARG:HE	1.77	0.49
1:G:3354:LEU:O	1:G:3358:PHE:HD1	1.94	0.49
1:G:3688:GLU:N	1:G:3688:GLU:OE1	2.46	0.49
1:G:4744:ASP:HB3	1:G:4747:SER:HB3	1.95	0.49
1:J:794:GLY:HA3	1:J:812:HIS:HB3	1.94	0.49
1:J:4828:SER:O	1:J:4832:HIS:HB3	2.12	0.49
1:B:3604:TYR:O	1:B:3608:GLN:HG2	2.11	0.49
1:B:3688:GLU:N	1:B:3688:GLU:OE1	2.46	0.49
1:B:4097:MET:SD	1:B:4108:ILE:HD12	2.53	0.49
1:B:4202:ARG:O	1:B:4206:GLU:HG2	2.12	0.49
1:E:2244:ARG:NH2	1:E:2283:ASN:OD1	2.44	0.49
1:E:3219:TYR:HA	1:E:3227:ARG:HD3	1.94	0.49
1:E:3446:SER:HA	1:E:3452:LYS:HE3	1.93	0.49
1:G:510:GLU:OE1	1:G:510:GLU:N	2.43	0.49
1:G:4097:MET:SD	1:G:4108:ILE:HD12	2.53	0.49
1:J:4202:ARG:O	1:J:4206:GLU:HG2	2.12	0.49
3:F:90:THR:HG23	3:F:124:THR:HA	1.95	0.49
3:K:2:VAL:HG22	3:K:27:SER:H	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:883:ALA:HA	1:B:886:ARG:HE	1.78	0.49
1:B:3042:LEU:HD22	1:B:3071:LEU:HD11	1.95	0.49
1:E:883:ALA:HA	1:E:886:ARG:HE	1.78	0.49
1:E:2454:ARG:HD2	1:E:2458:ARG:HH21	1.77	0.49
1:E:4097:MET:SD	1:E:4108:ILE:HD12	2.53	0.49
1:G:210:GLU:HB2	1:G:215:THR:HG22	1.95	0.49
1:G:1037:ASP:O	1:G:1041:GLN:HG2	2.12	0.49
1:G:2970:SER:HA	1:G:2973:PHE:CE2	2.47	0.49
1:G:3097:GLU:O	1:G:3167:ARG:NH2	2.44	0.49
1:J:210:GLU:HB2	1:J:215:THR:HG22	1.95	0.49
1:J:2578:MET:SD	1:J:2578:MET:N	2.86	0.49
1:J:2970:SER:HA	1:J:2973:PHE:CE2	2.47	0.49
1:J:3688:GLU:N	1:J:3688:GLU:OE1	2.45	0.49
2:D:30:LEU:HD23	2:D:36:PHE:CE2	2.48	0.49
2:I:30:LEU:HD23	2:I:36:PHE:CE2	2.48	0.49
3:C:2:VAL:HG22	3:C:27:SER:H	1.76	0.49
3:M:90:THR:HG23	3:M:124:THR:HA	1.95	0.49
1:B:2336:ARG:HB2	1:B:2435:ARG:HD2	1.93	0.49
1:B:3435:PHE:CZ	1:B:3602:VAL:HG21	2.47	0.49
1:B:3446:SER:HA	1:B:3452:LYS:HE3	1.93	0.49
1:E:3354:LEU:O	1:E:3358:PHE:HD1	1.94	0.49
1:E:3547:GLU:O	1:E:3551:GLU:HG2	2.12	0.49
1:E:4828:SER:O	1:E:4832:HIS:HB3	2.12	0.49
1:G:3333:THR:HG22	1:G:3337:ARG:CZ	2.42	0.49
1:J:371:VAL:HG12	1:J:373:LYS:H	1.78	0.49
1:J:926:GLY:O	1:J:930:LYS:HG3	2.12	0.49
1:J:1037:ASP:O	1:J:1041:GLN:HG2	2.12	0.49
1:J:3547:GLU:O	1:J:3551:GLU:HG2	2.12	0.49
3:C:90:THR:HG23	3:C:124:THR:HA	1.95	0.49
1:B:2970:SER:HA	1:B:2973:PHE:CD2	2.48	0.49
1:B:3315:LEU:HD13	1:B:3341:PHE:HE2	1.77	0.49
1:B:3333:THR:HG22	1:B:3337:ARG:CZ	2.42	0.49
1:B:4876:CYS:HA	1:B:4882:CYS:HB2	1.95	0.49
1:E:359:TYR:HA	1:E:376:ALA:HA	1.95	0.49
1:G:371:VAL:HG12	1:G:373:LYS:H	1.77	0.49
1:G:897:ARG:HD3	1:G:905:PRO:HD3	1.95	0.49
1:G:2578:MET:SD	1:G:2578:MET:N	2.86	0.49
1:G:2700:MET:CE	1:G:2701:PRO:HD3	2.43	0.49
1:J:897:ARG:HD3	1:J:905:PRO:HD3	1.95	0.49
1:J:3219:TYR:HA	1:J:3227:ARG:HD3	1.94	0.49
2:A:4:ILE:HD11	2:A:62:GLY:HA2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:90:THR:HG23	3:K:124:THR:HA	1.95	0.49
1:B:4931:ILE:HG12	1:G:4936:ILE:HD11	1.94	0.49
1:E:210:GLU:HB2	1:E:215:THR:HG22	1.95	0.49
1:E:1476:MET:HB2	1:E:1485:SER:HB2	1.95	0.49
1:E:2638:LYS:HB2	1:E:2639:MET:CE	2.43	0.49
1:E:2970:SER:HA	1:E:2973:PHE:CD2	2.48	0.49
1:G:721:LEU:HG	1:G:730:VAL:HG21	1.95	0.49
1:G:4731:ILE:HG22	1:G:4732:PHE:CD2	2.48	0.49
1:G:4931:ILE:HG12	1:J:4936:ILE:HD11	1.94	0.49
1:J:27:THR:HG23	1:J:32:GLN:HG3	1.95	0.49
1:J:246:TYR:CD1	1:J:373:LYS:HE3	2.48	0.49
1:J:1042:ALA:O	1:J:1046:LEU:HG	2.13	0.49
1:J:2638:LYS:HB2	1:J:2639:MET:CE	2.43	0.49
2:I:16:PRO:HB3	2:I:106:LEU:HD11	1.94	0.49
1:B:246:TYR:CD1	1:B:373:LYS:HE3	2.48	0.49
1:B:2454:ARG:HD2	1:B:2458:ARG:HH21	1.77	0.49
1:B:2578:MET:SD	1:B:2578:MET:N	2.86	0.49
1:B:2765:LYS:HZ2	1:B:2860:PRO:HA	1.78	0.49
1:B:4744:ASP:HB3	1:B:4747:SER:HB3	1.95	0.49
1:E:359:TYR:HE1	1:E:385:ASP:HB2	1.77	0.49
1:E:783:PHE:HB2	1:E:787:VAL:HG11	1.94	0.49
1:E:1042:ALA:O	1:E:1046:LEU:HG	2.13	0.49
1:E:2336:ARG:HB2	1:E:2435:ARG:HD2	1.93	0.49
1:G:27:THR:HG23	1:G:32:GLN:HG3	1.95	0.49
1:G:2638:LYS:HB2	1:G:2639:MET:CE	2.43	0.49
1:G:4202:ARG:O	1:G:4206:GLU:HG2	2.12	0.49
1:J:2244:ARG:NH2	1:J:2283:ASN:OD1	2.44	0.49
1:J:2991:HIS:O	1:J:2995:ILE:HG13	2.13	0.49
1:B:27:THR:HG23	1:B:32:GLN:HG3	1.95	0.49
1:B:710:ASP:OD1	1:B:711:LEU:N	2.46	0.49
1:B:1037:ASP:O	1:B:1041:GLN:HG2	2.12	0.49
1:B:2377:LEU:O	1:B:2381:GLU:HG2	2.13	0.49
1:B:3030:HIS:HB2	1:B:3035:GLU:HG2	1.93	0.49
1:B:3443:ILE:O	1:B:3447:LYS:HG3	2.13	0.49
1:B:4936:ILE:HD11	1:E:4931:ILE:HG12	1.93	0.49
1:E:222:LEU:O	1:E:223:PHE:HD1	1.96	0.49
1:E:2325:PRO:HB2	1:E:2421:ALA:HB1	1.95	0.49
1:E:2388:GLU:O	1:E:2390:PRO:HD3	2.12	0.49
1:E:4731:ILE:HG22	1:E:4732:PHE:CD2	2.48	0.49
1:G:251:ALA:O	1:G:255:HIS:ND1	2.40	0.49
1:G:783:PHE:HB2	1:G:787:VAL:HG11	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1690:ASP:OD2	1:G:1693:GLN:NE2	2.46	0.49
1:G:4696:ASP:O	1:G:4700:GLN:HG2	2.13	0.49
1:J:251:ALA:O	1:J:255:HIS:ND1	2.40	0.49
1:J:747:CYS:SG	1:J:756:SER:HB2	2.53	0.49
1:J:3315:LEU:HD13	1:J:3341:PHE:HE2	1.77	0.49
2:I:4:ILE:HD11	2:I:62:GLY:HA2	1.95	0.49
1:B:210:GLU:HB2	1:B:215:THR:HG22	1.95	0.48
1:B:2325:PRO:HB2	1:B:2421:ALA:HB1	1.95	0.48
1:B:3183:VAL:O	1:B:3187:ARG:HG3	2.13	0.48
1:B:4235:VAL:HG11	1:B:5019:TRP:CH2	2.48	0.48
1:E:436:LEU:H	1:E:436:LEU:HD12	1.77	0.48
1:E:863:LEU:HD21	1:E:939:VAL:HG21	1.95	0.48
1:E:3183:VAL:O	1:E:3187:ARG:HG3	2.13	0.48
1:E:3280:TYR:HE1	1:E:3283:ARG:HH21	1.60	0.48
1:E:3437:MET:O	1:E:3441:ILE:HG13	2.13	0.48
1:E:4090:LYS:HZ2	1:E:4112:LEU:HD23	1.77	0.48
1:G:2325:PRO:HB2	1:G:2421:ALA:HB1	1.95	0.48
1:G:3435:PHE:CZ	1:G:3602:VAL:HG21	2.47	0.48
1:G:3437:MET:O	1:G:3441:ILE:HG13	2.13	0.48
1:J:222:LEU:O	1:J:223:PHE:HD1	1.96	0.48
1:J:863:LEU:HD21	1:J:939:VAL:HG21	1.95	0.48
1:J:3534:MET:O	1:J:3538:THR:HG23	2.13	0.48
1:J:4104:THR:O	1:J:4108:ILE:HG12	2.13	0.48
2:D:4:ILE:HD11	2:D:62:GLY:HA2	1.95	0.48
1:B:897:ARG:HD3	1:B:905:PRO:HD3	1.95	0.48
1:B:2504:LEU:O	1:B:2508:ARG:HG2	2.14	0.48
1:B:2700:MET:CE	1:B:2701:PRO:HD3	2.43	0.48
1:B:2960:LEU:HB3	1:B:3038:MET:HE1	1.94	0.48
1:B:4731:ILE:HG22	1:B:4732:PHE:CD2	2.48	0.48
1:B:4943:LEU:O	1:B:4947:GLN:HG2	2.13	0.48
1:E:27:THR:HG23	1:E:32:GLN:HG3	1.95	0.48
1:E:2991:HIS:O	1:E:2995:ILE:HG13	2.13	0.48
1:E:4235:VAL:HG11	1:E:5019:TRP:CH2	2.48	0.48
1:G:794:GLY:HA3	1:G:812:HIS:HB3	1.94	0.48
1:G:4104:THR:O	1:G:4108:ILE:HG12	2.13	0.48
1:J:436:LEU:H	1:J:436:LEU:HD12	1.77	0.48
1:J:728:ARG:HE	1:J:1487:LEU:HD12	1.78	0.48
1:J:2960:LEU:HB3	1:J:3038:MET:CE	2.42	0.48
2:D:16:PRO:HB3	2:D:106:LEU:HD11	1.94	0.48
1:B:230:CYS:SG	1:B:231:LEU:HG	2.53	0.48
1:B:728:ARG:HE	1:B:1487:LEU:HD12	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:747:CYS:SG	1:B:756:SER:HB2	2.53	0.48
1:B:1042:ALA:O	1:B:1046:LEU:HG	2.13	0.48
1:B:2388:GLU:O	1:B:2390:PRO:HD3	2.12	0.48
1:E:747:CYS:SG	1:E:756:SER:HB2	2.53	0.48
1:E:2294:ASP:HA	1:E:2297:LYS:HE2	1.95	0.48
1:E:2504:LEU:O	1:E:2508:ARG:HG2	2.14	0.48
1:E:2700:MET:CE	1:E:2701:PRO:HD3	2.43	0.48
1:E:3206:LEU:H	1:E:3206:LEU:HD12	1.79	0.48
1:G:230:CYS:SG	1:G:231:LEU:HG	2.54	0.48
1:G:1476:MET:HB2	1:G:1485:SER:HB2	1.95	0.48
1:G:2689:LYS:HG2	1:G:2690:LYS:H	1.78	0.48
1:G:3315:LEU:HD13	1:G:3341:PHE:HE2	1.77	0.48
1:G:4876:CYS:HA	1:G:4882:CYS:HB2	1.95	0.48
1:G:4943:LEU:O	1:G:4947:GLN:HG2	2.14	0.48
1:J:2700:MET:CE	1:J:2701:PRO:HD3	2.43	0.48
1:J:3042:LEU:HD22	1:J:3071:LEU:HD11	1.95	0.48
1:J:3206:LEU:HD12	1:J:3206:LEU:H	1.79	0.48
1:J:4696:ASP:O	1:J:4700:GLN:HG2	2.13	0.48
1:J:4744:ASP:HB3	1:J:4747:SER:HB3	1.95	0.48
2:H:4:ILE:HD11	2:H:62:GLY:HA2	1.95	0.48
3:F:18:LEU:HD21	3:F:85:LEU:HD11	1.95	0.48
3:K:18:LEU:HD21	3:K:85:LEU:HD11	1.96	0.48
1:B:252:VAL:HA	1:B:255:HIS:HB2	1.96	0.48
1:B:266:ARG:HH12	1:B:273:HIS:HE1	1.58	0.48
1:B:1423:ASP:O	1:B:1427:ILE:HG12	2.14	0.48
1:B:1973:GLN:NE2	1:B:2005:GLN:OE1	2.47	0.48
1:B:3989:VAL:HG13	1:B:4023:MET:HE2	1.95	0.48
1:E:1037:ASP:O	1:E:1041:GLN:HG2	2.12	0.48
1:E:1423:ASP:O	1:E:1427:ILE:HG12	2.14	0.48
1:E:2960:LEU:HB3	1:E:3038:MET:CE	2.42	0.48
1:E:3443:ILE:O	1:E:3447:LYS:HG3	2.13	0.48
1:E:3688:GLU:OE1	1:E:3688:GLU:N	2.45	0.48
1:E:4696:ASP:O	1:E:4700:GLN:HG2	2.13	0.48
1:G:470:SER:HA	1:G:473:ASN:HD21	1.77	0.48
1:G:747:CYS:SG	1:G:756:SER:HB2	2.53	0.48
1:G:863:LEU:HD21	1:G:939:VAL:HG21	1.95	0.48
1:G:1042:ALA:O	1:G:1046:LEU:HG	2.13	0.48
1:G:3042:LEU:HD22	1:G:3071:LEU:HD11	1.95	0.48
1:J:252:VAL:HA	1:J:255:HIS:HB2	1.96	0.48
1:J:1786:LEU:HD12	1:J:1787:PRO:HD2	1.96	0.48
1:J:2377:LEU:O	1:J:2381:GLU:HG2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:4097:MET:SD	1:J:4108:ILE:HD12	2.53	0.48
1:B:213:TYR:HD1	1:B:340:LYS:HA	1.79	0.48
1:B:783:PHE:HB2	1:B:787:VAL:HG11	1.95	0.48
1:B:1476:MET:HB2	1:B:1485:SER:HB2	1.95	0.48
1:B:2689:LYS:HG2	1:B:2690:LYS:H	1.78	0.48
1:E:230:CYS:SG	1:E:231:LEU:HG	2.53	0.48
1:E:299:LEU:CD2	1:E:378:LEU:HG	2.44	0.48
1:E:1786:LEU:HD12	1:E:1787:PRO:HD2	1.96	0.48
1:E:3989:VAL:HG13	1:E:4023:MET:HE2	1.94	0.48
1:E:4202:ARG:O	1:E:4206:GLU:HG2	2.12	0.48
1:G:1423:ASP:O	1:G:1427:ILE:HG12	2.14	0.48
1:G:1973:GLN:NE2	1:G:2005:GLN:OE1	2.47	0.48
1:G:3443:ILE:O	1:G:3447:LYS:HG3	2.13	0.48
1:J:2325:PRO:HB2	1:J:2421:ALA:HB1	1.95	0.48
1:J:3097:GLU:O	1:J:3167:ARG:NH2	2.44	0.48
1:J:4109:GLN:HA	1:J:4112:LEU:HD12	1.96	0.48
1:B:470:SER:HA	1:B:473:ASN:HD21	1.77	0.48
1:B:721:LEU:HG	1:B:730:VAL:HG21	1.95	0.48
1:B:794:GLY:HA3	1:B:812:HIS:HB3	1.94	0.48
1:B:993:HIS:CE1	1:B:1027:LEU:HD11	2.49	0.48
1:B:2328:GLY:HA3	1:B:2425:PHE:HE2	1.79	0.48
1:B:2638:LYS:HB2	1:B:2639:MET:CE	2.43	0.48
1:B:2991:HIS:O	1:B:2995:ILE:HG13	2.13	0.48
1:B:3280:TYR:HE1	1:B:3283:ARG:HH21	1.60	0.48
1:B:3437:MET:O	1:B:3441:ILE:HG13	2.13	0.48
1:B:4696:ASP:O	1:B:4700:GLN:HG2	2.13	0.48
1:E:911:HIS:HB2	1:E:918:ARG:NE	2.29	0.48
1:E:2377:LEU:O	1:E:2381:GLU:HG2	2.13	0.48
1:E:3534:MET:O	1:E:3538:THR:HG23	2.13	0.48
1:G:222:LEU:O	1:G:223:PHE:HD1	1.96	0.48
1:G:252:VAL:HA	1:G:255:HIS:HB2	1.96	0.48
1:G:374:LYS:O	1:G:375:LYS:C	2.51	0.48
1:G:4235:VAL:HG11	1:G:5019:TRP:CH2	2.48	0.48
1:J:783:PHE:HB2	1:J:787:VAL:HG11	1.94	0.48
1:J:869:ARG:O	1:J:873:LYS:HG3	2.14	0.48
1:J:1423:ASP:O	1:J:1427:ILE:HG12	2.14	0.48
1:J:1476:MET:HB2	1:J:1485:SER:HB2	1.95	0.48
1:J:3352:GLU:HG2	1:J:3353:LEU:H	1.79	0.48
1:J:3850:GLN:HB2	1:J:3873:LYS:HG3	1.96	0.48
1:J:4235:VAL:HG11	1:J:5019:TRP:CH2	2.49	0.48
2:A:30:LEU:HD23	2:A:36:PHE:CE2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:51:ILE:HG23	3:C:71:ARG:HD2	1.96	0.48
3:M:40:ALA:HB3	3:M:43:LYS:HB3	1.96	0.48
1:B:222:LEU:O	1:B:223:PHE:HD1	1.96	0.48
1:B:869:ARG:O	1:B:873:LYS:HG3	2.14	0.48
1:B:1786:LEU:HD12	1:B:1787:PRO:HD2	1.96	0.48
1:B:2294:ASP:HA	1:B:2297:LYS:HE2	1.95	0.48
1:B:4109:GLN:HA	1:B:4112:LEU:HD12	1.96	0.48
1:E:266:ARG:HH12	1:E:273:HIS:HE1	1.58	0.48
1:E:710:ASP:OD1	1:E:711:LEU:N	2.46	0.48
1:G:911:HIS:HB2	1:G:918:ARG:NE	2.29	0.48
1:G:2504:LEU:O	1:G:2508:ARG:HG2	2.14	0.48
1:G:2960:LEU:HB3	1:G:3038:MET:HE1	1.94	0.48
1:G:3068:LEU:HA	1:G:3071:LEU:HD12	1.95	0.48
1:G:3141:THR:OG1	1:G:3193:CYS:SG	2.56	0.48
1:J:470:SER:HA	1:J:473:ASN:HD21	1.77	0.48
1:J:710:ASP:OD1	1:J:711:LEU:N	2.46	0.48
1:J:3183:VAL:O	1:J:3187:ARG:HG3	2.13	0.48
1:J:4230:LYS:NZ	1:J:4231:MET:SD	2.84	0.48
1:J:4943:LEU:O	1:J:4947:GLN:HG2	2.14	0.48
1:B:3534:MET:O	1:B:3538:THR:HG23	2.13	0.48
1:E:213:TYR:HD1	1:E:340:LYS:HA	1.79	0.48
1:E:470:SER:HA	1:E:473:ASN:HD21	1.77	0.48
1:E:3537:LYS:HD3	1:E:3600:SER:HB2	1.96	0.48
1:G:2454:ARG:HD2	1:G:2458:ARG:HH21	1.77	0.48
1:G:3352:GLU:HG2	1:G:3353:LEU:H	1.79	0.48
1:G:4109:GLN:HA	1:G:4112:LEU:HD12	1.96	0.48
1:J:993:HIS:CE1	1:J:1027:LEU:HD11	2.49	0.48
1:J:1180:ARG:HG3	1:J:1181:GLU:HG3	1.96	0.48
1:J:2970:SER:HA	1:J:2973:PHE:CD2	2.48	0.48
1:J:3333:THR:HG22	1:J:3337:ARG:CZ	2.42	0.48
1:J:3437:MET:O	1:J:3441:ILE:HG13	2.13	0.48
1:J:3550:ARG:O	1:J:3554:GLN:HG2	2.14	0.48
3:C:18:LEU:HD21	3:C:85:LEU:HD11	1.96	0.48
3:M:18:LEU:HD21	3:M:85:LEU:HD11	1.96	0.48
3:M:100:VAL:HG22	3:M:105:ASN:HB2	1.96	0.48
1:B:1690:ASP:OD2	1:B:1693:GLN:NE2	2.46	0.48
1:B:2751:LEU:HD12	1:B:2754:PHE:HD2	1.79	0.48
1:B:3752:SER:HB2	1:B:3755:GLU:HG3	1.96	0.48
1:B:4574:ASN:ND2	1:B:4813:LEU:HG	2.29	0.48
1:E:266:ARG:NH2	1:E:273:HIS:O	2.47	0.48
1:E:870:ILE:O	1:E:874:LEU:HG	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:897:ARG:HD3	1:E:905:PRO:HD3	1.95	0.48
1:G:728:ARG:HE	1:G:1487:LEU:HD12	1.78	0.48
1:G:2377:LEU:O	1:G:2381:GLU:HG2	2.13	0.48
1:G:3183:VAL:O	1:G:3187:ARG:HG3	2.13	0.48
1:G:4574:ASN:ND2	1:G:4813:LEU:HG	2.29	0.48
1:J:230:CYS:SG	1:J:231:LEU:HG	2.53	0.48
1:J:2504:LEU:O	1:J:2508:ARG:HG2	2.14	0.48
3:K:40:ALA:HB3	3:K:43:LYS:HB3	1.96	0.48
3:M:51:ILE:HG23	3:M:71:ARG:HD2	1.96	0.48
1:B:2381:GLU:O	1:B:2385:ARG:HG3	2.14	0.48
1:B:3417:ASP:OD1	1:B:3516:LYS:HE2	2.14	0.48
1:E:2689:LYS:HG2	1:E:2690:LYS:H	1.78	0.48
1:E:3834:ALA:O	1:E:3838:THR:HG23	2.14	0.48
1:E:4744:ASP:HB3	1:E:4747:SER:HB3	1.95	0.48
1:G:3550:ARG:O	1:G:3554:GLN:HG2	2.14	0.48
1:G:3850:GLN:HB2	1:G:3873:LYS:HG3	1.96	0.48
1:J:721:LEU:HG	1:J:730:VAL:HG21	1.95	0.48
1:J:3310:ASP:HA	1:J:3313:ASN:ND2	2.28	0.48
1:B:266:ARG:NH2	1:B:273:HIS:O	2.47	0.47
1:B:863:LEU:HD21	1:B:939:VAL:HG21	1.95	0.47
1:B:882:TRP:O	1:B:885:THR:OG1	2.24	0.47
1:B:3537:LYS:HD3	1:B:3600:SER:HB2	1.96	0.47
1:B:4104:THR:O	1:B:4108:ILE:HG12	2.13	0.47
1:E:882:TRP:CD1	1:E:886:ARG:NE	2.82	0.47
1:E:1973:GLN:NE2	1:E:2005:GLN:OE1	2.47	0.47
1:E:3315:LEU:HD13	1:E:3341:PHE:HE2	1.77	0.47
1:E:3550:ARG:O	1:E:3554:GLN:HG2	2.14	0.47
1:E:4104:THR:O	1:E:4108:ILE:HG12	2.13	0.47
1:E:4876:CYS:HA	1:E:4882:CYS:HB2	1.95	0.47
1:E:4943:LEU:O	1:E:4947:GLN:HG2	2.14	0.47
1:G:869:ARG:O	1:G:873:LYS:HG3	2.14	0.47
1:G:993:HIS:CE1	1:G:1027:LEU:HD11	2.49	0.47
1:G:2991:HIS:O	1:G:2995:ILE:HG13	2.13	0.47
3:K:51:ILE:HG23	3:K:71:ARG:HD2	1.96	0.47
1:B:2011:HIS:O	1:B:2011:HIS:ND1	2.41	0.47
1:E:14:LEU:HD13	1:E:202:MET:HG2	1.96	0.47
1:E:1649:ASP:HB3	1:E:1652:GLU:HG3	1.96	0.47
1:E:1690:ASP:OD2	1:E:1693:GLN:NE2	2.46	0.47
1:E:2328:GLY:HA3	1:E:2425:PHE:HE2	1.79	0.47
1:E:2751:LEU:HD12	1:E:2754:PHE:HD2	1.79	0.47
1:E:4735:GLU:O	1:E:4739:GLU:HG2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1180:ARG:HG3	1:G:1181:GLU:HG3	1.96	0.47
1:G:1931:LEU:HD22	1:G:1935:VAL:HG11	1.96	0.47
1:G:2970:SER:HA	1:G:2973:PHE:CD2	2.48	0.47
1:G:3047:ALA:O	1:G:3051:ARG:N	2.47	0.47
1:G:3179:LYS:HG2	1:G:3268:HIS:CE1	2.50	0.47
1:G:3534:MET:O	1:G:3538:THR:HG23	2.13	0.47
1:G:3537:LYS:HD3	1:G:3600:SER:HB2	1.96	0.47
1:G:4090:LYS:HZ2	1:G:4112:LEU:HD23	1.78	0.47
1:J:14:LEU:HD13	1:J:202:MET:HG2	1.96	0.47
1:J:374:LYS:O	1:J:375:LYS:C	2.51	0.47
1:J:911:HIS:HB2	1:J:918:ARG:NE	2.29	0.47
1:J:1649:ASP:HB3	1:J:1652:GLU:HG3	1.96	0.47
1:J:3443:ILE:O	1:J:3447:LYS:HG3	2.13	0.47
2:H:30:LEU:HD23	2:H:36:PHE:CE2	2.48	0.47
3:C:40:ALA:HB3	3:C:43:LYS:HB3	1.96	0.47
3:F:40:ALA:HB3	3:F:43:LYS:HB3	1.96	0.47
1:B:3097:GLU:O	1:B:3167:ARG:NH2	2.44	0.47
1:B:3550:ARG:O	1:B:3554:GLN:HG2	2.14	0.47
1:B:3850:GLN:HB2	1:B:3873:LYS:HG3	1.96	0.47
1:E:869:ARG:O	1:E:873:LYS:HG3	2.14	0.47
1:E:3179:LYS:HG2	1:E:3268:HIS:CE1	2.49	0.47
1:E:3310:ASP:HA	1:E:3313:ASN:ND2	2.28	0.47
1:E:3352:GLU:HG2	1:E:3353:LEU:H	1.79	0.47
1:E:3850:GLN:HB2	1:E:3873:LYS:HG3	1.96	0.47
1:G:14:LEU:HD13	1:G:202:MET:HG2	1.96	0.47
1:G:2294:ASP:HA	1:G:2297:LYS:HE2	1.95	0.47
1:G:2328:GLY:HA3	1:G:2425:PHE:HE2	1.79	0.47
1:G:2381:GLU:O	1:G:2385:ARG:HG3	2.14	0.47
1:G:3310:ASP:HA	1:G:3313:ASN:ND2	2.28	0.47
1:J:2294:ASP:HA	1:J:2297:LYS:HE2	1.95	0.47
1:J:2689:LYS:HG2	1:J:2690:LYS:H	1.78	0.47
1:J:3068:LEU:HA	1:J:3071:LEU:HD12	1.95	0.47
1:J:3179:LYS:HG2	1:J:3268:HIS:CE1	2.49	0.47
1:J:4735:GLU:O	1:J:4739:GLU:HG2	2.15	0.47
1:E:252:VAL:HA	1:E:255:HIS:HB2	1.96	0.47
1:E:871:ARG:CZ	1:E:922:LEU:HB3	2.45	0.47
1:E:1620:ALA:HB3	1:E:1624:LEU:HB2	1.97	0.47
1:E:4109:GLN:HA	1:E:4112:LEU:HD12	1.96	0.47
1:G:3417:ASP:OD1	1:G:3516:LYS:HE2	2.14	0.47
1:J:3537:LYS:HD3	1:J:3600:SER:HB2	1.96	0.47
1:J:3713:LYS:NZ	1:J:3715:LYS:O	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:4090:LYS:HE2	1:J:4123:ILE:HG21	1.97	0.47
1:B:870:ILE:O	1:B:874:LEU:HG	2.14	0.47
1:B:1867:GLU:HG2	1:B:1870:VAL:HG12	1.97	0.47
1:B:3179:LYS:HG2	1:B:3268:HIS:CE1	2.49	0.47
1:E:299:LEU:HD22	1:E:378:LEU:HG	1.97	0.47
1:E:728:ARG:HE	1:E:1487:LEU:HD12	1.78	0.47
1:E:882:TRP:O	1:E:885:THR:OG1	2.25	0.47
1:E:993:HIS:CE1	1:E:1027:LEU:HD11	2.49	0.47
1:E:3417:ASP:OD1	1:E:3516:LYS:HE2	2.14	0.47
1:E:4090:LYS:HE2	1:E:4123:ILE:HG21	1.97	0.47
1:E:4574:ASN:ND2	1:E:4813:LEU:HG	2.29	0.47
1:G:4735:GLU:O	1:G:4739:GLU:HG2	2.15	0.47
1:J:213:TYR:HD1	1:J:340:LYS:HA	1.79	0.47
1:J:871:ARG:CZ	1:J:922:LEU:HB3	2.45	0.47
1:J:1620:ALA:HB3	1:J:1624:LEU:HB2	1.97	0.47
1:J:1690:ASP:OD2	1:J:1693:GLN:NE2	2.46	0.47
2:H:78:PRO:HA	2:H:81:ALA:HB3	1.97	0.47
1:B:882:TRP:CD1	1:B:886:ARG:NE	2.82	0.47
1:B:984:LEU:O	1:B:988:LEU:HD23	2.15	0.47
1:B:3206:LEU:HD12	1:B:3206:LEU:H	1.78	0.47
1:B:3310:ASP:HA	1:B:3313:ASN:ND2	2.28	0.47
1:E:972:LEU:HD12	1:E:976:ARG:HA	1.97	0.47
1:E:3047:ALA:O	1:E:3051:ARG:N	2.47	0.47
1:E:3755:GLU:O	1:E:3758:MET:HG3	2.15	0.47
1:G:213:TYR:HD1	1:G:340:LYS:HA	1.79	0.47
1:G:882:TRP:CD1	1:G:886:ARG:NE	2.83	0.47
1:G:972:LEU:HD12	1:G:976:ARG:HA	1.97	0.47
1:G:3206:LEU:HD12	1:G:3206:LEU:H	1.79	0.47
1:G:3752:SER:HB2	1:G:3755:GLU:HG3	1.96	0.47
1:G:4090:LYS:HE2	1:G:4123:ILE:HG21	1.97	0.47
1:J:882:TRP:CD1	1:J:886:ARG:NE	2.83	0.47
1:J:972:LEU:HD12	1:J:976:ARG:HA	1.97	0.47
1:J:4083:ASP:HB3	1:J:4087:LEU:H	1.80	0.47
1:J:4876:CYS:HA	1:J:4882:CYS:HB2	1.95	0.47
1:B:911:HIS:HB2	1:B:918:ARG:NE	2.29	0.47
1:B:972:LEU:HD12	1:B:976:ARG:HA	1.97	0.47
1:B:1649:ASP:HB3	1:B:1652:GLU:HG3	1.96	0.47
1:B:2715:VAL:HG12	1:B:2954:ARG:HA	1.97	0.47
1:B:3018:LEU:HD13	1:B:3150:HIS:HE1	1.80	0.47
1:B:3755:GLU:O	1:B:3758:MET:HG3	2.15	0.47
1:B:4000:MET:HE1	1:B:4058:ILE:HG12	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4083:ASP:HB3	1:B:4087:LEU:H	1.80	0.47
1:E:365:LYS:O	1:E:369:LEU:HG	2.15	0.47
1:E:721:LEU:HG	1:E:730:VAL:HG21	1.95	0.47
1:E:1180:ARG:HG3	1:E:1181:GLU:HG3	1.96	0.47
1:E:1867:GLU:HG2	1:E:1870:VAL:HG12	1.97	0.47
1:E:2755:ILE:HD12	1:E:2813:LEU:HD13	1.96	0.47
1:E:2975:ALA:O	1:E:2978:GLU:HG2	2.15	0.47
1:E:3078:ARG:HG3	1:E:3082:LYS:HE3	1.97	0.47
1:E:3752:SER:HB2	1:E:3755:GLU:HG3	1.96	0.47
1:E:4000:MET:HE1	1:E:4058:ILE:HG12	1.97	0.47
1:E:5011:TRP:O	1:E:5015:GLN:HG3	2.15	0.47
1:G:1274:HIS:O	1:G:1559:GLN:NE2	2.33	0.47
1:G:2559:LEU:O	1:G:2563:THR:HG23	2.15	0.47
1:G:2751:LEU:HD12	1:G:2754:PHE:HD2	1.79	0.47
1:G:3043:PHE:CE1	1:G:3075:LEU:HD21	2.50	0.47
1:G:3780:LEU:HD11	1:G:3816:MET:HG2	1.97	0.47
1:J:870:ILE:O	1:J:874:LEU:HG	2.14	0.47
1:J:3755:GLU:O	1:J:3758:MET:HG3	2.15	0.47
1:J:3834:ALA:O	1:J:3838:THR:HG23	2.14	0.47
1:J:4574:ASN:ND2	1:J:4813:LEU:HG	2.29	0.47
1:J:5011:TRP:O	1:J:5015:GLN:HG3	2.15	0.47
1:B:1931:LEU:HD22	1:B:1935:VAL:HG11	1.96	0.47
1:B:2975:ALA:O	1:B:2978:GLU:HG2	2.15	0.47
1:B:3047:ALA:O	1:B:3051:ARG:N	2.47	0.47
1:B:3834:ALA:O	1:B:3838:THR:HG23	2.14	0.47
1:E:2670:GLU:HG3	1:E:2912:THR:HA	1.97	0.47
1:E:3042:LEU:HD22	1:E:3071:LEU:HD11	1.95	0.47
1:E:3078:ARG:H	1:E:3078:ARG:HD2	1.80	0.47
1:E:4068:LEU:O	1:E:4071:ILE:HG22	2.15	0.47
1:G:924:MET:CE	3:M:106:PRO:HB2	2.44	0.47
1:G:1620:ALA:HB3	1:G:1624:LEU:HB2	1.97	0.47
1:G:1786:LEU:HD12	1:G:1787:PRO:HD2	1.96	0.47
1:G:2700:MET:N	1:G:2701:PRO:HD2	2.30	0.47
1:G:2715:VAL:HG12	1:G:2954:ARG:HA	1.97	0.47
1:G:3717:ASP:OD1	1:G:3717:ASP:N	2.48	0.47
1:G:4083:ASP:HB3	1:G:4087:LEU:H	1.80	0.47
1:G:5011:TRP:O	1:G:5015:GLN:HG3	2.15	0.47
1:J:1867:GLU:HG2	1:J:1870:VAL:HG12	1.97	0.47
1:J:2670:GLU:HG3	1:J:2912:THR:HA	1.97	0.47
1:J:3043:PHE:CE1	1:J:3075:LEU:HD21	2.50	0.47
1:B:153:ALA:HB2	1:B:170:ILE:HG13	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1620:ALA:HB3	1:B:1624:LEU:HB2	1.97	0.47
1:B:4093:PHE:CD1	1:B:4123:ILE:HD11	2.50	0.47
1:E:3043:PHE:CE1	1:E:3075:LEU:HD21	2.50	0.47
1:G:299:LEU:HD23	1:G:376:ALA:O	2.15	0.47
1:G:870:ILE:O	1:G:874:LEU:HG	2.14	0.47
1:G:1436:SER:OG	1:G:1565:GLU:HB2	2.15	0.47
1:G:2755:ILE:HD12	1:G:2813:LEU:HD13	1.96	0.47
1:G:3777:GLU:O	1:G:3781:GLN:HG3	2.15	0.47
1:G:4000:MET:HE1	1:G:4058:ILE:HG12	1.97	0.47
1:J:266:ARG:NH2	1:J:273:HIS:O	2.47	0.47
1:J:1931:LEU:HD22	1:J:1935:VAL:HG11	1.96	0.47
3:F:51:ILE:HG23	3:F:71:ARG:HD2	1.96	0.47
1:B:2700:MET:N	1:B:2701:PRO:HD2	2.30	0.47
1:B:3277:LEU:HG	1:B:3341:PHE:CZ	2.50	0.47
1:B:4735:GLU:O	1:B:4739:GLU:HG2	2.15	0.47
1:E:984:LEU:O	1:E:988:LEU:HD23	2.15	0.47
1:E:3018:LEU:HD13	1:E:3150:HIS:HE1	1.80	0.47
1:E:3097:GLU:O	1:E:3167:ARG:NH2	2.44	0.47
1:E:4091:LYS:NZ	1:E:4092:ASP:OD1	2.48	0.47
1:E:4157:ASP:N	1:E:4161:ARG:HH21	2.13	0.47
1:G:153:ALA:HB2	1:G:170:ILE:HG13	1.97	0.47
1:G:882:TRP:O	1:G:885:THR:OG1	2.25	0.47
1:J:299:LEU:HD23	1:J:376:ALA:O	2.15	0.47
1:J:551:LEU:HB3	1:J:589:LEU:HD21	1.97	0.47
1:J:1973:GLN:NE2	1:J:2005:GLN:OE1	2.47	0.47
1:J:3539:ARG:HB3	1:J:3544:ASP:CG	2.36	0.47
1:J:3717:ASP:N	1:J:3717:ASP:OD1	2.48	0.47
1:J:4000:MET:HE1	1:J:4058:ILE:HG12	1.97	0.47
1:B:871:ARG:CZ	1:B:922:LEU:HB3	2.45	0.46
1:B:3352:GLU:HG2	1:B:3353:LEU:H	1.79	0.46
1:E:3539:ARG:HB3	1:E:3544:ASP:CG	2.36	0.46
1:E:3713:LYS:NZ	1:E:3715:LYS:O	2.48	0.46
1:E:4093:PHE:CD1	1:E:4123:ILE:HD11	2.50	0.46
1:G:266:ARG:NH2	1:G:273:HIS:O	2.47	0.46
1:G:1079:LYS:HA	1:G:1189:LEU:HD11	1.97	0.46
1:G:1100:MET:HG2	1:G:1194:LEU:HG	1.97	0.46
1:G:1649:ASP:HB3	1:G:1652:GLU:HG3	1.96	0.46
1:G:3078:ARG:H	1:G:3078:ARG:HD2	1.80	0.46
1:G:3834:ALA:O	1:G:3838:THR:HG23	2.14	0.46
1:J:2489:LYS:HE3	1:J:2546:MET:HG2	1.98	0.46
1:J:2751:LEU:HD12	1:J:2754:PHE:HD2	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:2755:ILE:HD12	1:J:2813:LEU:HD13	1.97	0.46
1:J:2975:ALA:O	1:J:2978:GLU:HG2	2.15	0.46
1:J:3047:ALA:O	1:J:3051:ARG:N	2.47	0.46
1:J:3752:SER:HB2	1:J:3755:GLU:HG3	1.96	0.46
1:J:3780:LEU:HD11	1:J:3816:MET:HG2	1.97	0.46
1:B:1617:THR:HG22	1:B:1628:VAL:HG13	1.97	0.46
1:B:2489:LYS:HE3	1:B:2546:MET:HG2	1.98	0.46
1:B:2773:ASN:OD1	1:E:1508:ARG:NH2	2.40	0.46
1:B:3068:LEU:HA	1:B:3071:LEU:HD12	1.96	0.46
1:B:4090:LYS:HE2	1:B:4123:ILE:HG21	1.97	0.46
1:B:4157:ASP:N	1:B:4161:ARG:HH21	2.13	0.46
1:E:1436:SER:OG	1:E:1565:GLU:HB2	2.15	0.46
1:E:1617:THR:HG22	1:E:1628:VAL:HG13	1.97	0.46
1:E:3068:LEU:HA	1:E:3071:LEU:HD12	1.96	0.46
1:E:3277:LEU:HG	1:E:3341:PHE:CZ	2.50	0.46
1:J:3144:PHE:CE2	1:J:3197:LEU:HB3	2.51	0.46
1:J:3592:ILE:HA	1:J:3595:ARG:HE	1.80	0.46
1:J:4157:ASP:N	1:J:4161:ARG:HH21	2.13	0.46
1:B:1100:MET:HG2	1:B:1194:LEU:HG	1.97	0.46
1:B:3209:GLN:HG2	1:B:3210:LEU:HG	1.98	0.46
1:B:3780:LEU:HD11	1:B:3816:MET:HG2	1.97	0.46
1:B:4068:LEU:O	1:B:4071:ILE:HG22	2.14	0.46
1:E:153:ALA:HB2	1:E:170:ILE:HG13	1.97	0.46
1:E:1931:LEU:HD22	1:E:1935:VAL:HG11	1.96	0.46
1:E:2381:GLU:O	1:E:2385:ARG:HG3	2.14	0.46
1:E:4083:ASP:HB3	1:E:4087:LEU:H	1.80	0.46
1:G:470:SER:HA	1:G:473:ASN:ND2	2.31	0.46
1:G:1867:GLU:HG2	1:G:1870:VAL:HG12	1.97	0.46
1:J:470:SER:HA	1:J:473:ASN:ND2	2.31	0.46
1:J:981:GLN:O	1:J:985:VAL:HG23	2.15	0.46
1:J:1100:MET:HG2	1:J:1194:LEU:HG	1.97	0.46
1:J:2715:VAL:HG12	1:J:2954:ARG:HA	1.97	0.46
1:J:3417:ASP:OD1	1:J:3516:LYS:HE2	2.14	0.46
1:J:4068:LEU:O	1:J:4071:ILE:HG22	2.15	0.46
1:B:2693:GLN:HB3	1:B:2697:ARG:HH22	1.81	0.46
1:B:3758:MET:O	1:B:3762:ARG:HG2	2.16	0.46
1:B:3927:GLN:NE2	1:B:3991:GLY:HA3	2.31	0.46
1:E:470:SER:HA	1:E:473:ASN:ND2	2.31	0.46
1:E:1079:LYS:HA	1:E:1189:LEU:HD11	1.97	0.46
1:E:2700:MET:N	1:E:2701:PRO:HD2	2.30	0.46
1:E:2973:PHE:CE1	1:E:2995:ILE:HG23	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:551:LEU:HB3	1:G:589:LEU:HD21	1.97	0.46
1:G:937:CYS:SG	1:G:984:LEU:HD22	2.56	0.46
1:G:2619:LEU:O	1:G:2623:LEU:HG	2.16	0.46
1:G:3018:LEU:HD13	1:G:3150:HIS:HE1	1.80	0.46
1:G:3539:ARG:HB3	1:G:3544:ASP:CG	2.35	0.46
1:G:3713:LYS:NZ	1:G:3715:LYS:O	2.48	0.46
1:J:1727:ARG:NH2	1:J:1773:PRO:O	2.49	0.46
1:J:2765:LYS:HD3	1:J:2765:LYS:HA	1.67	0.46
1:B:14:LEU:HD13	1:B:202:MET:HG2	1.96	0.46
1:B:1180:ARG:HG3	1:B:1181:GLU:HG3	1.96	0.46
1:B:1727:ARG:NH2	1:B:1773:PRO:O	2.48	0.46
1:E:2489:LYS:HE3	1:E:2546:MET:HG2	1.97	0.46
1:E:2619:LEU:O	1:E:2623:LEU:HG	2.16	0.46
1:E:3505:VAL:HG23	1:E:3507:THR:H	1.80	0.46
1:E:3989:VAL:HG13	1:E:4023:MET:CE	2.46	0.46
1:G:2489:LYS:HE3	1:G:2546:MET:HG2	1.98	0.46
1:G:3505:VAL:HG23	1:G:3507:THR:H	1.80	0.46
1:J:1274:HIS:O	1:J:1559:GLN:NE2	2.33	0.46
1:J:2328:GLY:HA3	1:J:2425:PHE:HE2	1.79	0.46
1:J:2381:GLU:O	1:J:2385:ARG:HG3	2.14	0.46
2:I:78:PRO:HA	2:I:81:ALA:HB3	1.96	0.46
1:B:2559:LEU:O	1:B:2563:THR:HG23	2.15	0.46
1:B:3078:ARG:H	1:B:3078:ARG:HD2	1.80	0.46
1:B:3391:GLU:O	1:B:3395:ARG:HG3	2.16	0.46
1:E:2715:VAL:HG12	1:E:2954:ARG:HA	1.97	0.46
1:E:3144:PHE:CE2	1:E:3197:LEU:HB3	2.51	0.46
1:E:3780:LEU:HD11	1:E:3816:MET:HG2	1.97	0.46
1:G:871:ARG:CZ	1:G:922:LEU:HB3	2.45	0.46
1:G:924:MET:O	1:G:928:THR:HG23	2.16	0.46
1:G:2975:ALA:O	1:G:2978:GLU:HG2	2.15	0.46
1:G:3277:LEU:HG	1:G:3341:PHE:CZ	2.50	0.46
1:G:4097:MET:SD	1:G:4108:ILE:HG23	2.56	0.46
1:J:937:CYS:SG	1:J:984:LEU:HD22	2.56	0.46
1:J:1436:SER:OG	1:J:1565:GLU:HB2	2.15	0.46
1:J:2700:MET:N	1:J:2701:PRO:HD2	2.30	0.46
1:J:3018:LEU:HD13	1:J:3150:HIS:HE1	1.80	0.46
1:J:3078:ARG:HG3	1:J:3082:LYS:HE3	1.97	0.46
1:J:3078:ARG:H	1:J:3078:ARG:HD2	1.80	0.46
1:J:3277:LEU:HG	1:J:3341:PHE:CZ	2.50	0.46
1:J:3777:GLU:O	1:J:3781:GLN:HG3	2.15	0.46
3:F:105:ASN:OD1	3:F:111:ASN:HB2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2670:GLU:HG3	1:B:2912:THR:HA	1.97	0.46
1:B:3043:PHE:CE1	1:B:3075:LEU:HD21	2.50	0.46
1:B:3144:PHE:CE2	1:B:3197:LEU:HB3	2.51	0.46
1:B:3539:ARG:HB3	1:B:3544:ASP:CG	2.36	0.46
1:B:3777:GLU:O	1:B:3781:GLN:HG3	2.15	0.46
1:E:283:ARG:NH1	1:E:290:TYR:OH	2.49	0.46
1:E:551:LEU:HB3	1:E:589:LEU:HD21	1.98	0.46
1:E:2495:VAL:HB	1:E:2498:HIS:CD2	2.51	0.46
1:E:3717:ASP:N	1:E:3717:ASP:OD1	2.48	0.46
1:E:3777:GLU:O	1:E:3781:GLN:HG3	2.15	0.46
1:G:3209:GLN:HG2	1:G:3210:LEU:HG	1.98	0.46
1:G:3391:GLU:O	1:G:3395:ARG:HG3	2.16	0.46
1:G:4118:ASP:OD1	1:G:4119:GLU:N	2.49	0.46
1:J:2559:LEU:O	1:J:2563:THR:HG23	2.15	0.46
1:J:3051:ARG:NH2	1:J:3098:SER:HB3	2.31	0.46
1:J:3262:ARG:HG3	1:J:3326:ASN:ND2	2.28	0.46
1:J:3540:TYR:HA	1:J:3544:ASP:O	2.16	0.46
2:A:78:PRO:HA	2:A:81:ALA:HB3	1.97	0.46
1:B:171:LEU:HB2	1:B:180:LEU:HD13	1.98	0.46
1:B:921:ASN:O	1:B:924:MET:HB3	2.15	0.46
1:B:1436:SER:OG	1:B:1565:GLU:HB2	2.15	0.46
1:B:3713:LYS:NZ	1:B:3715:LYS:O	2.48	0.46
1:E:251:ALA:O	1:E:255:HIS:ND1	2.40	0.46
1:E:924:MET:CE	3:F:107:TRP:CD1	2.99	0.46
1:E:2559:LEU:O	1:E:2563:THR:HG23	2.15	0.46
1:E:3051:ARG:NH2	1:E:3098:SER:HB3	2.31	0.46
1:G:171:LEU:HB2	1:G:180:LEU:HD13	1.98	0.46
1:G:921:ASN:O	1:G:924:MET:HB3	2.15	0.46
1:G:3051:ARG:NH2	1:G:3098:SER:HB3	2.31	0.46
1:G:3078:ARG:HG3	1:G:3082:LYS:HE3	1.97	0.46
1:G:3755:GLU:O	1:G:3758:MET:HG3	2.15	0.46
1:G:4093:PHE:CD1	1:G:4123:ILE:HD11	2.50	0.46
1:J:984:LEU:O	1:J:988:LEU:HD23	2.15	0.46
1:J:1738:LEU:HD12	1:J:1738:LEU:HA	1.80	0.46
1:J:3927:GLN:NE2	1:J:3991:GLY:HA3	2.31	0.46
3:C:105:ASN:OD1	3:C:111:ASN:HB2	2.16	0.46
1:B:551:LEU:HB3	1:B:589:LEU:HD21	1.97	0.46
1:B:2755:ILE:HD12	1:B:2813:LEU:HD13	1.97	0.46
1:B:3078:ARG:HG3	1:B:3082:LYS:HE3	1.97	0.46
1:B:3435:PHE:HZ	1:B:3602:VAL:HG21	1.81	0.46
1:B:3592:ILE:HA	1:B:3595:ARG:HE	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:861:ILE:HG21	1:E:933:LEU:HD22	1.98	0.46
1:E:924:MET:O	1:E:928:THR:HG23	2.16	0.46
1:E:2693:GLN:HB3	1:E:2697:ARG:HH22	1.81	0.46
1:E:3758:MET:O	1:E:3762:ARG:HG2	2.16	0.46
1:G:661:LYS:HG2	1:G:749:ASP:OD1	2.16	0.46
1:G:887:ILE:HG21	1:G:959:TYR:HA	1.97	0.46
1:G:984:LEU:O	1:G:988:LEU:HD23	2.15	0.46
1:G:1727:ARG:NH2	1:G:1773:PRO:O	2.48	0.46
1:G:2670:GLU:HG3	1:G:2912:THR:HA	1.97	0.46
1:G:3758:MET:O	1:G:3762:ARG:HG2	2.16	0.46
1:J:661:LYS:HG2	1:J:749:ASP:OD1	2.16	0.46
1:J:2619:LEU:O	1:J:2623:LEU:HG	2.16	0.46
1:J:3505:VAL:HG23	1:J:3507:THR:H	1.80	0.46
1:J:4093:PHE:CD1	1:J:4123:ILE:HD11	2.50	0.46
2:D:78:PRO:HA	2:D:81:ALA:HB3	1.97	0.46
3:K:32:ASN:ND2	3:K:101:PRO:HB3	2.31	0.46
3:M:105:ASN:ND2	3:M:107:TRP:HD1	2.12	0.46
1:B:222:LEU:O	1:B:230:CYS:HB3	2.16	0.46
1:B:283:ARG:NH1	1:B:290:TYR:OH	2.49	0.46
1:B:861:ILE:HG21	1:B:933:LEU:HD22	1.98	0.46
1:B:924:MET:O	1:B:928:THR:HG23	2.16	0.46
1:B:1000:ARG:NH2	3:C:115:ASP:O	2.49	0.46
1:B:3051:ARG:NH2	1:B:3098:SER:HB3	2.31	0.46
1:E:222:LEU:O	1:E:230:CYS:HB3	2.16	0.46
1:E:3391:GLU:O	1:E:3395:ARG:HG3	2.16	0.46
1:E:3592:ILE:HA	1:E:3595:ARG:HE	1.80	0.46
1:G:140:ASP:OD1	1:G:140:ASP:N	2.49	0.46
1:G:981:GLN:O	1:G:985:VAL:HG23	2.15	0.46
1:G:2523:ASP:OD1	1:G:2524:VAL:N	2.49	0.46
1:G:2973:PHE:CE1	1:G:2995:ILE:HG23	2.51	0.46
1:G:3445:TRP:HA	1:G:3451:PHE:CD1	2.49	0.46
1:J:2523:ASP:OD1	1:J:2524:VAL:N	2.49	0.46
1:J:4107:GLU:O	1:J:4111:LEU:HG	2.16	0.46
2:A:17:LYS:N	2:A:20:GLN:OE1	2.49	0.46
3:K:105:ASN:OD1	3:K:111:ASN:HB2	2.16	0.46
1:B:2495:VAL:HB	1:B:2498:HIS:CD2	2.51	0.45
1:B:2619:LEU:O	1:B:2623:LEU:HG	2.16	0.45
1:B:2973:PHE:CE1	1:B:2995:ILE:HG23	2.51	0.45
1:B:3505:VAL:HG23	1:B:3507:THR:H	1.80	0.45
1:G:244:LEU:HD23	1:G:375:LYS:HZ2	1.81	0.45
1:G:3144:PHE:CE2	1:G:3197:LEU:HB3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4068:LEU:O	1:G:4071:ILE:HG22	2.15	0.45
1:G:4157:ASP:N	1:G:4161:ARG:HH21	2.13	0.45
1:J:153:ALA:HB2	1:J:170:ILE:HG13	1.97	0.45
1:J:228:ASP:HA	1:J:247:TYR:HE1	1.82	0.45
1:J:1617:THR:HG22	1:J:1628:VAL:HG13	1.97	0.45
1:J:2689:LYS:HG2	1:J:2690:LYS:N	2.31	0.45
1:J:3223:SER:O	1:J:3227:ARG:HG3	2.17	0.45
1:J:3391:GLU:O	1:J:3395:ARG:HG3	2.16	0.45
1:B:77:ALA:O	1:B:81:MET:HG3	2.17	0.45
1:B:470:SER:HA	1:B:473:ASN:ND2	2.31	0.45
1:B:937:CYS:SG	1:B:984:LEU:HD22	2.56	0.45
1:B:1079:LYS:HA	1:B:1189:LEU:HD11	1.97	0.45
1:B:2765:LYS:HD3	1:B:2765:LYS:HA	1.67	0.45
1:B:3717:ASP:N	1:B:3717:ASP:OD1	2.48	0.45
1:E:228:ASP:HA	1:E:247:TYR:HE1	1.82	0.45
1:E:2523:ASP:OD1	1:E:2524:VAL:N	2.49	0.45
1:E:3006:ILE:HD11	1:E:3071:LEU:HD21	1.97	0.45
1:E:3148:ALA:HB2	1:E:3200:ALA:HB2	1.98	0.45
1:G:222:LEU:O	1:G:230:CYS:HB3	2.16	0.45
1:G:2689:LYS:HG2	1:G:2690:LYS:N	2.31	0.45
1:G:3592:ILE:HA	1:G:3595:ARG:HE	1.80	0.45
1:J:921:ASN:O	1:J:924:MET:HB3	2.15	0.45
1:J:1079:LYS:HA	1:J:1189:LEU:HD11	1.97	0.45
1:B:3075:LEU:O	1:B:3146:HIS:HE1	1.99	0.45
1:B:3540:TYR:HA	1:B:3544:ASP:O	2.16	0.45
1:B:4097:MET:SD	1:B:4108:ILE:HG23	2.56	0.45
1:B:4107:GLU:O	1:B:4111:LEU:HG	2.16	0.45
1:B:4230:LYS:NZ	1:B:4231:MET:SD	2.84	0.45
1:B:5011:TRP:O	1:B:5015:GLN:HG3	2.15	0.45
1:E:171:LEU:HB2	1:E:180:LEU:HD13	1.98	0.45
1:E:921:ASN:O	1:E:924:MET:HB3	2.15	0.45
1:E:981:GLN:O	1:E:985:VAL:HG23	2.15	0.45
1:E:4655:PHE:O	1:E:4659:ILE:HG12	2.17	0.45
1:G:861:ILE:HG21	1:G:933:LEU:HD22	1.98	0.45
1:G:1617:THR:HG22	1:G:1628:VAL:HG13	1.97	0.45
1:G:3006:ILE:HD11	1:G:3071:LEU:HD21	1.97	0.45
1:G:3435:PHE:HZ	1:G:3602:VAL:HG21	1.81	0.45
1:J:861:ILE:HG21	1:J:933:LEU:HD22	1.98	0.45
1:J:2765:LYS:HZ3	1:J:2857:PRO:HG2	1.80	0.45
1:J:3989:VAL:HG13	1:J:4023:MET:CE	2.46	0.45
1:B:23:GLN:HB3	1:B:34:LYS:HG2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:981:GLN:O	1:B:985:VAL:HG23	2.15	0.45
1:B:2978:GLU:HB3	1:B:3056:LEU:HD11	1.99	0.45
1:B:3223:SER:O	1:B:3227:ARG:HG3	2.17	0.45
1:E:1727:ARG:NH2	1:E:1773:PRO:O	2.48	0.45
1:E:2765:LYS:HZ3	1:E:2857:PRO:HG2	1.82	0.45
1:G:228:ASP:HA	1:G:247:TYR:HE1	1.82	0.45
1:G:2495:VAL:HB	1:G:2498:HIS:CD2	2.51	0.45
1:G:2693:GLN:HB3	1:G:2697:ARG:HH22	1.81	0.45
1:G:2978:GLU:HB3	1:G:3056:LEU:HD11	1.99	0.45
1:G:3540:TYR:HA	1:G:3544:ASP:O	2.16	0.45
1:J:2973:PHE:CE1	1:J:2995:ILE:HG23	2.51	0.45
1:J:3018:LEU:HD13	1:J:3150:HIS:CE1	2.51	0.45
1:J:4032:GLU:HG3	1:J:5006:GLN:HE21	1.81	0.45
1:J:4655:PHE:O	1:J:4659:ILE:HG12	2.17	0.45
2:H:25:HIS:HB3	2:H:40:ARG:CZ	2.47	0.45
1:B:601:ASP:OD1	1:B:1668:ARG:NH2	2.49	0.45
1:B:937:CYS:HB3	1:B:1053:ILE:HG22	1.98	0.45
1:B:3018:LEU:HD13	1:B:3150:HIS:CE1	2.51	0.45
1:E:601:ASP:OD1	1:E:1668:ARG:NH2	2.49	0.45
1:E:2689:LYS:HG2	1:E:2690:LYS:N	2.31	0.45
1:E:3075:LEU:O	1:E:3146:HIS:HE1	1.99	0.45
1:E:3223:SER:O	1:E:3227:ARG:HG3	2.17	0.45
1:G:4032:GLU:HG3	1:G:5006:GLN:HE21	1.81	0.45
1:J:77:ALA:O	1:J:81:MET:HG3	2.17	0.45
1:J:222:LEU:O	1:J:230:CYS:HB3	2.16	0.45
1:J:601:ASP:OD1	1:J:1668:ARG:NH2	2.50	0.45
1:J:4097:MET:SD	1:J:4108:ILE:HG23	2.56	0.45
2:A:25:HIS:HB3	2:A:40:ARG:CZ	2.47	0.45
2:I:17:LYS:N	2:I:20:GLN:OE1	2.49	0.45
1:B:228:ASP:HA	1:B:247:TYR:HE1	1.82	0.45
1:B:3148:ALA:HB2	1:B:3200:ALA:HB2	1.98	0.45
1:E:871:ARG:HB2	1:E:925:SER:HB3	1.99	0.45
1:E:887:ILE:HG21	1:E:959:TYR:HA	1.97	0.45
1:E:917:GLU:CB	3:F:104:TYR:HE2	2.23	0.45
1:E:2765:LYS:NZ	1:E:2860:PRO:HA	2.32	0.45
1:E:3018:LEU:HD13	1:E:3150:HIS:CE1	2.51	0.45
1:G:871:ARG:HB2	1:G:925:SER:HB3	1.99	0.45
1:G:4230:LYS:NZ	1:G:4231:MET:SD	2.84	0.45
1:J:283:ARG:NH1	1:J:290:TYR:OH	2.49	0.45
1:J:1964:ARG:O	1:J:1968:LYS:NZ	2.46	0.45
1:J:2495:VAL:HB	1:J:2498:HIS:CD2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:3075:LEU:O	1:J:3146:HIS:HE1	1.99	0.45
1:J:3327:LEU:HD22	1:J:3368:ARG:CZ	2.47	0.45
1:B:3006:ILE:HD11	1:B:3071:LEU:HD21	1.97	0.45
1:B:4032:GLU:HG3	1:B:5006:GLN:HE21	1.81	0.45
1:E:487:VAL:O	1:E:491:ILE:HG13	2.17	0.45
1:E:661:LYS:HG2	1:E:749:ASP:OD1	2.16	0.45
1:E:937:CYS:SG	1:E:984:LEU:HD22	2.56	0.45
1:E:1100:MET:HG2	1:E:1194:LEU:HG	1.97	0.45
1:G:3989:VAL:HG13	1:G:4023:MET:CE	2.46	0.45
1:J:140:ASP:OD1	1:J:140:ASP:N	2.49	0.45
1:J:3148:ALA:HB2	1:J:3200:ALA:HB2	1.98	0.45
1:J:3209:GLN:HG2	1:J:3210:LEU:HG	1.98	0.45
1:J:4091:LYS:NZ	1:J:4092:ASP:OD1	2.48	0.45
1:B:487:VAL:O	1:B:491:ILE:HG13	2.17	0.45
1:B:871:ARG:HB2	1:B:925:SER:HB3	1.99	0.45
1:B:887:ILE:HG21	1:B:959:TYR:HA	1.97	0.45
1:B:4767:TRP:O	1:B:4767:TRP:HD1	1.99	0.45
1:B:5017:ARG:HD3	1:B:5019:TRP:CZ2	2.52	0.45
1:E:2702:CYS:O	1:E:2706:ILE:HD13	2.17	0.45
1:E:3927:GLN:NE2	1:E:3991:GLY:HA3	2.31	0.45
1:E:4107:GLU:O	1:E:4111:LEU:HG	2.16	0.45
1:E:4813:LEU:HD23	1:E:4813:LEU:HA	1.85	0.45
1:G:426:ARG:H	1:G:506:TYR:HA	1.82	0.45
1:G:3927:GLN:NE2	1:G:3991:GLY:HA3	2.31	0.45
1:G:4107:GLU:O	1:G:4111:LEU:HG	2.16	0.45
1:J:171:LEU:HB2	1:J:180:LEU:HD13	1.98	0.45
1:J:887:ILE:HG21	1:J:959:TYR:HA	1.97	0.45
1:J:924:MET:CE	3:K:107:TRP:CD1	3.00	0.45
1:J:3758:MET:O	1:J:3762:ARG:HG2	2.16	0.45
2:I:25:HIS:HB3	2:I:40:ARG:CZ	2.47	0.45
3:F:32:ASN:ND2	3:F:101:PRO:HB3	2.32	0.45
3:K:104:TYR:CE1	3:K:106:PRO:HG3	2.46	0.45
1:B:728:ARG:NH2	1:B:1489:CYS:SG	2.90	0.45
1:B:3318:ASN:O	1:B:3322:ILE:HG12	2.17	0.45
1:B:4655:PHE:O	1:B:4659:ILE:HG12	2.16	0.45
1:E:424:LYS:HE2	1:E:424:LYS:HB2	1.85	0.45
1:E:937:CYS:HB3	1:E:1053:ILE:HG22	1.98	0.45
1:E:3327:LEU:HD22	1:E:3368:ARG:CZ	2.47	0.45
1:G:77:ALA:O	1:G:81:MET:HG3	2.17	0.45
1:G:283:ARG:NH1	1:G:290:TYR:OH	2.49	0.45
1:G:553:ARG:NH1	1:G:555:GLU:OE2	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2283:ASN:HB3	1:G:2286:LEU:HB2	1.99	0.45
1:G:3401:LEU:HD23	1:G:3401:LEU:HA	1.81	0.45
1:J:244:LEU:HD23	1:J:375:LYS:HZ2	1.81	0.45
1:J:937:CYS:HB3	1:J:1053:ILE:HG22	1.98	0.45
1:J:3459:VAL:HG11	1:J:3505:VAL:HG11	1.99	0.45
1:B:173:SER:HB2	1:B:176:SER:O	2.17	0.45
1:B:251:ALA:O	1:B:255:HIS:ND1	2.40	0.45
1:B:426:ARG:H	1:B:506:TYR:HA	1.82	0.45
1:B:936:GLY:HA3	1:B:1056:PRO:HB3	1.99	0.45
1:B:2523:ASP:OD1	1:B:2524:VAL:N	2.49	0.45
1:B:2689:LYS:HG2	1:B:2690:LYS:N	2.31	0.45
1:B:2758:PHE:O	1:B:2762:THR:HG23	2.17	0.45
1:E:426:ARG:H	1:E:506:TYR:HA	1.82	0.45
1:E:613:ALA:HB1	1:E:618:GLN:HE22	1.83	0.45
1:E:864:PRO:N	1:E:865:PRO:HD2	2.32	0.45
1:E:3262:ARG:HG3	1:E:3326:ASN:ND2	2.28	0.45
1:E:3534:MET:SD	1:E:3537:LYS:NZ	2.75	0.45
1:E:3540:TYR:HA	1:E:3544:ASP:O	2.16	0.45
1:E:4065:PHE:HA	1:E:4068:LEU:HB2	1.99	0.45
1:E:4069:LYS:O	1:E:4072:VAL:HG12	2.17	0.45
1:E:4767:TRP:O	1:E:4767:TRP:HD1	1.99	0.45
1:G:340:LYS:HB2	1:G:344:SER:HB3	1.99	0.45
1:G:601:ASP:OD1	1:G:1668:ARG:NH2	2.50	0.45
1:G:874:LEU:O	1:G:878:ILE:HG12	2.17	0.45
1:G:2758:PHE:O	1:G:2762:THR:HG23	2.17	0.45
1:G:3075:LEU:O	1:G:3146:HIS:HE1	1.99	0.45
1:G:3223:SER:O	1:G:3227:ARG:HG3	2.17	0.45
1:J:874:LEU:O	1:J:878:ILE:HG12	2.17	0.45
1:J:924:MET:O	1:J:928:THR:HG23	2.16	0.45
1:J:2693:GLN:HB3	1:J:2697:ARG:HH22	1.81	0.45
1:J:2702:CYS:O	1:J:2706:ILE:HD13	2.17	0.45
1:J:2801:ASP:HA	1:J:2804:ILE:HG12	1.99	0.45
1:J:3006:ILE:HD11	1:J:3071:LEU:HD21	1.97	0.45
1:J:4767:TRP:O	1:J:4767:TRP:HD1	1.99	0.45
1:J:5017:ARG:HD3	1:J:5019:TRP:CZ2	2.52	0.45
1:B:371:VAL:HG12	1:B:373:LYS:H	1.82	0.44
1:B:2886:TRP:HA	1:B:2889:LYS:HG2	1.99	0.44
1:E:77:ALA:O	1:E:81:MET:HG3	2.17	0.44
1:E:728:ARG:NH2	1:E:1489:CYS:SG	2.90	0.44
1:E:3052:HIS:C	1:E:3053:ARG:HD2	2.38	0.44
1:E:3318:ASN:O	1:E:3322:ILE:HG12	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3435:PHE:HZ	1:E:3602:VAL:HG21	1.81	0.44
1:G:487:VAL:O	1:G:491:ILE:HG13	2.17	0.44
1:G:864:PRO:N	1:G:865:PRO:HD2	2.32	0.44
1:G:937:CYS:HB3	1:G:1053:ILE:HG22	1.98	0.44
1:G:1943:LEU:HD13	1:G:2098:VAL:HG22	1.99	0.44
1:G:3052:HIS:C	1:G:3053:ARG:HD2	2.38	0.44
1:G:4655:PHE:O	1:G:4659:ILE:HG12	2.17	0.44
1:G:5017:ARG:HD3	1:G:5019:TRP:CZ2	2.52	0.44
1:J:861:ILE:HD12	1:J:934:ALA:HA	2.00	0.44
1:J:2758:PHE:O	1:J:2762:THR:HG23	2.17	0.44
1:J:3836:MET:HE2	1:J:3836:MET:HB2	1.91	0.44
1:B:246:TYR:CE1	1:B:373:LYS:HE3	2.52	0.44
1:B:3979:SER:O	1:B:3983:SER:OG	2.31	0.44
1:E:24:CYS:HB2	1:E:200:TRP:CE3	2.53	0.44
1:E:553:ARG:NH1	1:E:555:GLU:OE2	2.48	0.44
1:E:2978:GLU:HB3	1:E:3056:LEU:HD11	1.99	0.44
1:E:4097:MET:SD	1:E:4108:ILE:HG23	2.56	0.44
1:E:5017:ARG:HD3	1:E:5019:TRP:CZ2	2.52	0.44
1:G:861:ILE:HD12	1:G:934:ALA:HA	2.00	0.44
1:G:913:LEU:HD11	1:G:922:LEU:HD11	2.00	0.44
1:G:936:GLY:HA3	1:G:1056:PRO:HB3	1.99	0.44
1:G:3018:LEU:HD13	1:G:3150:HIS:CE1	2.51	0.44
1:G:3038:MET:C	1:G:3038:MET:HE2	2.37	0.44
1:J:426:ARG:H	1:J:506:TYR:HA	1.82	0.44
1:J:1943:LEU:HD13	1:J:2098:VAL:HG22	2.00	0.44
1:J:4157:ASP:H	1:J:4161:ARG:HH21	1.66	0.44
3:M:101:PRO:HD2	3:M:104:TYR:O	2.17	0.44
1:B:2283:ASN:HB3	1:B:2286:LEU:HB2	1.99	0.44
1:B:2765:LYS:NZ	1:B:2860:PRO:HA	2.32	0.44
1:B:3372:VAL:HG12	1:B:3398:PHE:CZ	2.52	0.44
1:B:4920:PHE:O	1:B:4924:VAL:HG22	2.17	0.44
1:E:2886:TRP:HA	1:E:2889:LYS:HG2	1.99	0.44
1:E:3651:ASN:O	1:E:3655:GLU:HG2	2.18	0.44
1:E:4666:VAL:O	1:E:4670:ILE:HG12	2.18	0.44
1:G:23:GLN:HB3	1:G:34:LYS:HG2	1.99	0.44
1:G:1667:LEU:O	1:G:1671:ARG:HG3	2.18	0.44
1:G:1860:LYS:O	1:G:1864:LYS:HG2	2.18	0.44
1:G:2420:HIS:HB2	1:G:2492:ALA:HA	1.99	0.44
1:G:3148:ALA:HB2	1:G:3200:ALA:HB2	1.98	0.44
1:G:3372:VAL:HG12	1:G:3398:PHE:CZ	2.52	0.44
1:G:4157:ASP:H	1:G:4161:ARG:HH21	1.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:871:ARG:HB2	1:J:925:SER:HB3	1.99	0.44
1:J:1667:LEU:O	1:J:1671:ARG:HG3	2.18	0.44
1:J:2978:GLU:HB3	1:J:3056:LEU:HD11	1.99	0.44
1:B:1274:HIS:O	1:B:1559:GLN:NE2	2.33	0.44
1:B:3038:MET:C	1:B:3038:MET:HE2	2.37	0.44
1:B:3327:LEU:HD22	1:B:3368:ARG:CZ	2.47	0.44
1:E:936:GLY:HA3	1:E:1056:PRO:HB3	2.00	0.44
1:E:3039:ILE:O	1:E:3043:PHE:HD1	2.00	0.44
1:E:3040:THR:OG1	1:E:3080:VAL:HG12	2.18	0.44
1:G:173:SER:HB2	1:G:176:SER:O	2.17	0.44
1:G:728:ARG:NH2	1:G:1489:CYS:SG	2.90	0.44
1:G:1123:VAL:HG12	1:G:1132:TRP:HB3	1.99	0.44
1:G:4090:LYS:HZ1	1:G:4115:SER:HB2	1.81	0.44
1:G:4920:PHE:O	1:G:4924:VAL:HG22	2.17	0.44
1:J:131:LEU:O	1:J:178:ARG:NH2	2.46	0.44
1:J:340:LYS:HB2	1:J:344:SER:HB3	1.99	0.44
1:J:728:ARG:NH2	1:J:1489:CYS:SG	2.90	0.44
1:J:913:LEU:HD11	1:J:922:LEU:HD11	1.99	0.44
1:J:2765:LYS:NZ	1:J:2860:PRO:HA	2.32	0.44
1:J:3039:ILE:O	1:J:3043:PHE:HD1	2.00	0.44
1:J:3052:HIS:C	1:J:3053:ARG:HD2	2.38	0.44
3:F:104:TYR:CE1	3:F:106:PRO:HG3	2.46	0.44
1:B:613:ALA:HB1	1:B:618:GLN:HE22	1.83	0.44
1:B:864:PRO:N	1:B:865:PRO:HD2	2.32	0.44
1:B:874:LEU:O	1:B:878:ILE:HG12	2.17	0.44
1:B:3207:GLU:HG3	1:B:3246:LEU:HD21	1.99	0.44
1:B:4157:ASP:H	1:B:4161:ARG:HH21	1.66	0.44
1:E:3209:GLN:HG2	1:E:3210:LEU:HG	1.98	0.44
1:G:247:TYR:HD2	1:G:372:LEU:HB3	1.80	0.44
1:G:3039:ILE:O	1:G:3043:PHE:HD1	2.00	0.44
1:G:3327:LEU:HD22	1:G:3368:ARG:CZ	2.47	0.44
1:J:24:CYS:HB2	1:J:200:TRP:CE3	2.53	0.44
1:J:3651:ASN:O	1:J:3655:GLU:HG2	2.18	0.44
1:J:4028:LEU:HD23	1:J:4146:LEU:HD13	2.00	0.44
1:B:4118:ASP:OD1	1:B:4119:GLU:N	2.49	0.44
1:B:4157:ASP:HB3	1:B:4160:LEU:HB3	2.00	0.44
1:E:2686:LEU:HD22	1:E:2696:TYR:CZ	2.52	0.44
1:E:3049:LEU:HB3	1:E:3057:PHE:CE1	2.53	0.44
1:E:4120:ASN:HB2	1:E:4122:MET:HG2	2.00	0.44
1:G:2765:LYS:HA	1:G:2765:LYS:HD3	1.67	0.44
1:G:2765:LYS:NZ	1:G:2860:PRO:HA	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2813:LEU:HA	1:G:2816:MET:SD	2.58	0.44
1:G:4666:VAL:O	1:G:4670:ILE:HG12	2.18	0.44
1:G:4767:TRP:O	1:G:4767:TRP:HD1	1.99	0.44
1:J:936:GLY:HA3	1:J:1056:PRO:HB3	1.99	0.44
1:J:2813:LEU:HA	1:J:2816:MET:SD	2.58	0.44
1:J:3318:ASN:O	1:J:3322:ILE:HG12	2.17	0.44
2:D:25:HIS:HB3	2:D:40:ARG:CZ	2.47	0.44
3:M:30:SER:HB3	3:M:99:ARG:CB	2.48	0.44
1:B:1667:LEU:O	1:B:1671:ARG:HG3	2.18	0.44
1:B:1758:ARG:NH2	1:B:2036:GLN:OE1	2.51	0.44
1:B:1860:LYS:O	1:B:1864:LYS:HG2	2.18	0.44
1:B:3040:THR:OG1	1:B:3080:VAL:HG12	2.18	0.44
1:B:3052:HIS:C	1:B:3053:ARG:HD2	2.38	0.44
1:B:4065:PHE:HA	1:B:4068:LEU:HB2	1.99	0.44
1:B:4069:LYS:O	1:B:4072:VAL:HG12	2.17	0.44
1:B:4666:VAL:O	1:B:4670:ILE:HG12	2.18	0.44
1:E:4032:GLU:HG3	1:E:5006:GLN:HE21	1.81	0.44
1:E:4157:ASP:H	1:E:4161:ARG:HH21	1.65	0.44
1:G:131:LEU:O	1:G:178:ARG:NH2	2.46	0.44
1:G:499:THR:HG23	1:G:502:HIS:H	1.83	0.44
1:G:735:GLN:OE1	1:G:735:GLN:HA	2.18	0.44
1:G:2886:TRP:HA	1:G:2889:LYS:HG2	1.99	0.44
1:G:3989:VAL:HG13	1:G:4023:MET:HE2	1.98	0.44
1:J:173:SER:HB2	1:J:176:SER:O	2.17	0.44
1:J:487:VAL:O	1:J:491:ILE:HG13	2.17	0.44
1:J:917:GLU:CB	3:K:104:TYR:HE2	2.23	0.44
1:J:1123:VAL:HG12	1:J:1132:TRP:HB3	1.99	0.44
1:J:4118:ASP:OD1	1:J:4119:GLU:N	2.49	0.44
1:B:924:MET:CE	3:C:106:PRO:HB2	2.48	0.44
1:B:1738:LEU:HD12	1:B:1738:LEU:HA	1.80	0.44
1:B:2010:LEU:HD12	1:B:3656:SER:HB2	2.00	0.44
1:B:2813:LEU:HA	1:B:2816:MET:SD	2.58	0.44
1:B:3039:ILE:O	1:B:3043:PHE:HD1	2.00	0.44
1:B:4945:ASP:O	1:B:4948:GLU:HG3	2.18	0.44
1:E:874:LEU:O	1:E:878:ILE:HG12	2.17	0.44
1:E:1815:LEU:HD22	1:E:1845:VAL:HG21	2.00	0.44
1:E:1828:ASP:N	1:E:1828:ASP:OD1	2.51	0.44
1:E:2801:ASP:HA	1:E:2804:ILE:HG12	1.99	0.44
1:E:3207:GLU:HG3	1:E:3246:LEU:HD21	1.99	0.44
1:E:3459:VAL:HG11	1:E:3505:VAL:HG11	1.99	0.44
1:G:3352:GLU:H	1:G:3352:GLU:CD	2.22	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3546:ASP:O	1:G:3550:ARG:HG2	2.18	0.44
1:J:23:GLN:HB3	1:J:34:LYS:HG2	1.99	0.44
1:J:2538:THR:O	1:J:2542:SER:N	2.42	0.44
1:J:3040:THR:OG1	1:J:3080:VAL:HG12	2.18	0.44
1:J:3207:GLU:HG3	1:J:3246:LEU:HD21	1.99	0.44
1:J:4120:ASN:HB2	1:J:4122:MET:HG2	2.00	0.44
1:B:298:GLY:HA3	1:B:378:LEU:H	1.83	0.44
1:B:661:LYS:HG2	1:B:749:ASP:OD1	2.16	0.44
1:B:2686:LEU:HD22	1:B:2696:TYR:CZ	2.52	0.44
1:B:2825:LYS:HG3	1:B:2935:TYR:CE1	2.53	0.44
1:B:3844:LEU:HD11	1:E:76:ARG:HH21	1.83	0.44
1:E:913:LEU:HD11	1:E:922:LEU:HD11	1.99	0.44
1:E:2713:ASP:HA	1:E:2954:ARG:HD3	2.00	0.44
1:E:4157:ASP:HB3	1:E:4160:LEU:HB3	2.00	0.44
1:G:917:GLU:CB	3:M:104:TYR:HE2	2.25	0.44
1:G:2702:CYS:O	1:G:2706:ILE:HD13	2.17	0.44
1:G:3207:GLU:HG3	1:G:3246:LEU:HD21	1.99	0.44
1:G:3318:ASN:O	1:G:3322:ILE:HG12	2.17	0.44
1:G:3969:ILE:HG21	1:G:3980:LEU:HD12	2.00	0.44
1:J:298:GLY:HA3	1:J:378:LEU:H	1.83	0.44
1:J:613:ALA:HB1	1:J:618:GLN:HE22	1.83	0.44
1:J:2352:VAL:O	1:J:2356:LEU:HG	2.18	0.44
1:J:2886:TRP:HA	1:J:2889:LYS:HG2	1.99	0.44
1:J:3420:ARG:NH1	1:J:3516:LYS:O	2.51	0.44
1:J:4069:LYS:O	1:J:4072:VAL:HG12	2.17	0.44
2:H:17:LYS:N	2:H:20:GLN:OE1	2.49	0.44
1:B:340:LYS:HB2	1:B:344:SER:HB3	1.99	0.43
1:B:1694:LEU:HB3	1:B:1715:LEU:HD12	1.99	0.43
1:B:2420:HIS:HB2	1:B:2492:ALA:HA	1.99	0.43
1:B:3100:SER:HB2	1:B:3167:ARG:NH2	2.33	0.43
1:E:3372:VAL:HG12	1:E:3398:PHE:CZ	2.52	0.43
1:E:4118:ASP:OD1	1:E:4119:GLU:N	2.49	0.43
1:E:4145:VAL:HG22	1:E:4178:LEU:HD13	2.00	0.43
1:G:1758:ARG:NH2	1:G:2036:GLN:OE1	2.51	0.43
1:G:4157:ASP:HB3	1:G:4160:LEU:HB3	2.00	0.43
1:J:133:PHE:HB2	1:J:193:ALA:HB3	2.00	0.43
1:J:864:PRO:N	1:J:865:PRO:HD2	2.32	0.43
1:J:1860:LYS:O	1:J:1864:LYS:HG2	2.18	0.43
1:J:3546:ASP:O	1:J:3550:ARG:HG2	2.18	0.43
1:J:4157:ASP:HB3	1:J:4160:LEU:HB3	2.00	0.43
2:D:17:LYS:N	2:D:20:GLN:OE1	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:861:ILE:HD12	1:B:934:ALA:HA	2.00	0.43
1:B:877:ASN:O	1:B:881:LEU:HG	2.18	0.43
1:B:1123:VAL:HG12	1:B:1132:TRP:HB3	1.99	0.43
1:B:1828:ASP:N	1:B:1828:ASP:OD1	2.51	0.43
1:B:2280:VAL:HG21	1:B:2290:LEU:HD11	2.00	0.43
1:B:3049:LEU:HB3	1:B:3057:PHE:CE1	2.53	0.43
1:B:3352:GLU:CD	1:B:3352:GLU:H	2.21	0.43
1:B:3366:ARG:NH1	1:B:3437:MET:SD	2.91	0.43
1:B:3989:VAL:HG13	1:B:4023:MET:CE	2.47	0.43
1:E:23:GLN:HB3	1:E:34:LYS:HG2	1.99	0.43
1:E:1758:ARG:NH2	1:E:2036:GLN:OE1	2.51	0.43
1:E:1860:LYS:O	1:E:1864:LYS:HG2	2.18	0.43
1:E:4068:LEU:HD23	1:E:4068:LEU:HA	1.90	0.43
1:E:4920:PHE:O	1:E:4924:VAL:HG22	2.17	0.43
1:G:877:ASN:O	1:G:881:LEU:HG	2.18	0.43
1:G:1694:LEU:HB3	1:G:1715:LEU:HD12	1.99	0.43
1:G:2825:LYS:HG3	1:G:2935:TYR:CE1	2.53	0.43
1:G:3262:ARG:HB2	1:G:3325:ASN:ND2	2.34	0.43
1:J:2686:LEU:HD22	1:J:2696:TYR:CZ	2.52	0.43
1:J:3366:ARG:NH1	1:J:3437:MET:SD	2.91	0.43
1:J:3435:PHE:HZ	1:J:3602:VAL:HG21	1.81	0.43
1:J:4731:ILE:HD13	1:J:4731:ILE:HA	1.88	0.43
1:J:4920:PHE:O	1:J:4924:VAL:HG22	2.17	0.43
1:B:499:THR:HG23	1:B:502:HIS:H	1.83	0.43
1:B:2702:CYS:O	1:B:2706:ILE:HD13	2.17	0.43
1:B:2801:ASP:HA	1:B:2804:ILE:HG12	1.99	0.43
1:B:3398:PHE:CE1	1:B:3451:PHE:HB2	2.54	0.43
1:B:3651:ASN:O	1:B:3655:GLU:HG2	2.18	0.43
1:E:20:VAL:HG12	1:E:22:LEU:H	1.83	0.43
1:E:173:SER:HB2	1:E:176:SER:O	2.17	0.43
1:E:861:ILE:HD12	1:E:934:ALA:HA	2.00	0.43
1:E:2312:MET:H	1:E:2312:MET:HG3	1.70	0.43
1:E:2758:PHE:O	1:E:2762:THR:HG23	2.17	0.43
1:E:3352:GLU:CD	1:E:3352:GLU:H	2.22	0.43
1:E:3546:ASP:O	1:E:3550:ARG:HG2	2.18	0.43
1:E:4945:ASP:O	1:E:4948:GLU:HG3	2.18	0.43
1:G:2325:PRO:HG2	1:G:2422:ILE:HD13	2.00	0.43
1:G:2686:LEU:HD22	1:G:2696:TYR:CZ	2.52	0.43
1:G:3040:THR:OG1	1:G:3080:VAL:HG12	2.18	0.43
1:G:3420:ARG:NH1	1:G:3516:LYS:O	2.51	0.43
1:G:4949:GLN:NE2	1:G:4953:ASP:OD2	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:20:VAL:HG12	1:J:22:LEU:H	1.83	0.43
1:J:1828:ASP:N	1:J:1828:ASP:OD1	2.51	0.43
1:J:2894:LEU:HD21	1:J:2901:THR:HA	2.00	0.43
1:J:3372:VAL:HG12	1:J:3398:PHE:CZ	2.53	0.43
1:J:3398:PHE:CE1	1:J:3451:PHE:HB2	2.54	0.43
1:J:3944:GLU:HG2	1:J:3946:GLN:H	1.83	0.43
1:J:3969:ILE:HG21	1:J:3980:LEU:HD12	2.00	0.43
1:J:4065:PHE:HA	1:J:4068:LEU:HB2	1.99	0.43
1:B:553:ARG:NH1	1:B:555:GLU:OE2	2.48	0.43
1:B:1993:ARG:O	1:B:1997:GLU:HG2	2.19	0.43
1:B:3262:ARG:HB2	1:B:3325:ASN:ND2	2.34	0.43
1:B:3546:ASP:O	1:B:3550:ARG:HG2	2.18	0.43
1:B:3562:LYS:HE2	1:B:3562:LYS:HB2	1.81	0.43
1:B:4077:PHE:HE1	1:B:4088:ILE:HG12	1.84	0.43
1:E:901:LYS:HG2	1:E:901:LYS:O	2.18	0.43
1:E:1667:LEU:O	1:E:1671:ARG:HG3	2.18	0.43
1:E:1694:LEU:HB3	1:E:1715:LEU:HD12	1.99	0.43
1:E:2283:ASN:HB3	1:E:2286:LEU:HB2	1.99	0.43
1:E:2813:LEU:HA	1:E:2816:MET:SD	2.58	0.43
1:E:4676:GLU:O	1:E:4680:LYS:HG2	2.19	0.43
1:G:2713:ASP:HA	1:G:2954:ARG:HD3	2.00	0.43
1:J:477:LEU:O	1:J:480:GLU:HG3	2.19	0.43
1:J:901:LYS:O	1:J:901:LYS:HG2	2.18	0.43
1:J:1694:LEU:HB3	1:J:1715:LEU:HD12	1.99	0.43
1:J:4666:VAL:O	1:J:4670:ILE:HG12	2.18	0.43
3:K:104:TYR:CD1	3:K:104:TYR:C	2.92	0.43
1:B:2431:ASP:HB2	1:B:2501:SER:HB2	2.01	0.43
1:B:3406:TYR:HE1	1:B:3509:LEU:HG	1.83	0.43
1:E:877:ASN:O	1:E:881:LEU:HG	2.18	0.43
1:E:2568:LEU:HD12	1:E:2568:LEU:O	2.19	0.43
1:E:2765:LYS:HD3	1:E:2765:LYS:HA	1.67	0.43
1:E:2773:ASN:OD1	1:J:1508:ARG:NH2	2.39	0.43
1:E:2894:LEU:HD21	1:E:2901:THR:HA	2.01	0.43
1:E:3060:ASP:O	1:E:3064:VAL:HG23	2.19	0.43
1:E:3350:ARG:NE	1:E:3350:ARG:HA	2.34	0.43
1:E:3366:ARG:NH1	1:E:3437:MET:SD	2.91	0.43
1:E:3398:PHE:CE1	1:E:3451:PHE:HB2	2.53	0.43
1:E:3408:LEU:HD12	1:E:3408:LEU:HA	1.81	0.43
1:E:4574:ASN:ND2	1:E:4810:ALA:HA	2.29	0.43
1:G:24:CYS:HB2	1:G:200:TRP:CE3	2.53	0.43
1:G:1828:ASP:N	1:G:1828:ASP:OD1	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3944:GLU:HG2	1:G:3946:GLN:H	1.83	0.43
1:J:247:TYR:HD2	1:J:372:LEU:O	2.01	0.43
1:J:365:LYS:O	1:J:369:LEU:HG	2.18	0.43
1:J:2283:ASN:HB3	1:J:2286:LEU:HB2	1.99	0.43
1:J:3408:LEU:HA	1:J:3408:LEU:HD12	1.81	0.43
1:B:1032:LYS:HB3	1:B:1036:ARG:NH2	2.33	0.43
1:B:2764:GLU:HG3	1:B:2857:PRO:HG3	2.01	0.43
1:B:4949:GLN:NE2	1:B:4953:ASP:OD2	2.52	0.43
1:E:246:TYR:HE1	1:E:375:LYS:HZ3	1.66	0.43
1:E:735:GLN:HA	1:E:735:GLN:OE1	2.18	0.43
1:E:1559:GLN:NE2	1:E:1559:GLN:O	2.52	0.43
1:E:2452:ARG:O	1:E:2456:ILE:HG13	2.19	0.43
1:E:2825:LYS:HG3	1:E:2935:TYR:CE1	2.53	0.43
1:E:2867:LEU:HD12	1:E:2867:LEU:HA	1.82	0.43
1:E:4077:PHE:HE1	1:E:4088:ILE:HG12	1.84	0.43
1:E:4090:LYS:HZ1	1:E:4115:SER:HB2	1.84	0.43
1:G:20:VAL:HG12	1:G:22:LEU:H	1.83	0.43
1:G:133:PHE:HB2	1:G:193:ALA:HB3	2.00	0.43
1:G:1032:LYS:HB3	1:G:1036:ARG:NH2	2.33	0.43
1:G:1993:ARG:O	1:G:1997:GLU:HG2	2.19	0.43
1:G:3350:ARG:NE	1:G:3350:ARG:HA	2.34	0.43
1:G:3366:ARG:NH1	1:G:3437:MET:SD	2.91	0.43
1:G:4028:LEU:HD23	1:G:4146:LEU:HD13	2.00	0.43
1:G:4069:LYS:O	1:G:4072:VAL:HG12	2.17	0.43
1:G:4945:ASP:O	1:G:4948:GLU:HG3	2.18	0.43
1:J:1559:GLN:NE2	1:J:1559:GLN:O	2.52	0.43
1:J:2431:ASP:HB2	1:J:2501:SER:HB2	2.01	0.43
1:J:2568:LEU:HD12	1:J:2568:LEU:O	2.19	0.43
1:J:4077:PHE:HE1	1:J:4088:ILE:HG12	1.84	0.43
1:B:20:VAL:HG12	1:B:22:LEU:H	1.83	0.43
1:B:24:CYS:HB2	1:B:200:TRP:CE3	2.53	0.43
1:B:913:LEU:HD11	1:B:922:LEU:HD11	1.99	0.43
1:B:1815:LEU:HD22	1:B:1845:VAL:HG21	2.00	0.43
1:B:2352:VAL:O	1:B:2356:LEU:HG	2.18	0.43
1:B:2713:ASP:HA	1:B:2954:ARG:HD3	2.00	0.43
1:B:3459:VAL:HG11	1:B:3505:VAL:HG11	1.99	0.43
1:B:3962:PHE:O	1:B:3966:THR:HG23	2.19	0.43
1:B:4120:ASN:HB2	1:B:4122:MET:HG2	2.00	0.43
1:E:1032:LYS:HB3	1:E:1036:ARG:NH2	2.33	0.43
1:E:1993:ARG:O	1:E:1997:GLU:HG2	2.19	0.43
1:E:2352:VAL:O	1:E:2356:LEU:HG	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2969:ILE:O	1:E:2972:GLU:HG3	2.19	0.43
1:E:3100:SER:HB2	1:E:3167:ARG:NH2	2.33	0.43
1:E:4184:MET:HA	1:E:4190:ILE:HD13	2.01	0.43
1:G:298:GLY:HA3	1:G:378:LEU:H	1.83	0.43
1:G:365:LYS:O	1:G:369:LEU:HG	2.19	0.43
1:G:901:LYS:O	1:G:901:LYS:HG2	2.18	0.43
1:G:2264:GLY:O	1:G:2268:GLN:HG2	2.19	0.43
1:G:2431:ASP:HB2	1:G:2501:SER:HB2	2.01	0.43
1:G:2452:ARG:O	1:G:2456:ILE:HG13	2.19	0.43
1:G:2894:LEU:HD21	1:G:2901:THR:HA	2.01	0.43
1:G:3546:ASP:N	1:G:3546:ASP:OD1	2.52	0.43
1:J:735:GLN:OE1	1:J:735:GLN:HA	2.18	0.43
1:J:1032:LYS:HB3	1:J:1036:ARG:NH2	2.33	0.43
1:J:3049:LEU:HB3	1:J:3057:PHE:CE1	2.53	0.43
1:J:3060:ASP:O	1:J:3064:VAL:HG23	2.19	0.43
1:J:3352:GLU:CD	1:J:3352:GLU:H	2.22	0.43
1:J:3401:LEU:HD23	1:J:3401:LEU:HA	1.80	0.43
3:K:32:ASN:OD1	3:K:33:SER:N	2.52	0.43
1:B:882:TRP:NE1	1:B:886:ARG:CZ	2.82	0.43
1:B:3969:ILE:HG21	1:B:3980:LEU:HD12	2.01	0.43
1:B:4028:LEU:HD23	1:B:4146:LEU:HD13	1.99	0.43
1:E:133:PHE:HB2	1:E:193:ALA:HB3	2.00	0.43
1:E:477:LEU:O	1:E:480:GLU:HG3	2.19	0.43
1:E:996:TRP:HA	1:E:999:ASP:OD2	2.19	0.43
1:E:1123:VAL:HG12	1:E:1132:TRP:HB3	1.99	0.43
1:E:1943:LEU:HD13	1:E:2098:VAL:HG22	2.00	0.43
1:E:2431:ASP:HB2	1:E:2501:SER:HB2	2.01	0.43
1:E:3268:HIS:CE1	1:E:3272:ILE:HG13	2.54	0.43
1:G:477:LEU:O	1:G:480:GLU:HG3	2.19	0.43
1:G:882:TRP:NE1	1:G:886:ARG:CZ	2.82	0.43
1:G:2655:TYR:OH	1:G:2671:GLU:OE2	2.31	0.43
1:G:3100:SER:HB2	1:G:3167:ARG:NH2	2.33	0.43
1:G:3651:ASN:O	1:G:3655:GLU:HG2	2.18	0.43
1:J:1815:LEU:HD22	1:J:1845:VAL:HG21	2.00	0.43
1:J:2420:HIS:HB2	1:J:2492:ALA:HA	1.99	0.43
1:J:3262:ARG:HB2	1:J:3325:ASN:ND2	2.34	0.43
1:J:3292:PRO:HA	1:J:3293:PRO:HD3	1.91	0.43
1:J:4676:GLU:O	1:J:4680:LYS:HG2	2.19	0.43
1:J:4945:ASP:O	1:J:4948:GLU:HG3	2.18	0.43
3:C:92:VAL:HG12	3:C:122:GLN:OE1	2.19	0.43
3:K:39:GLN:OE1	3:K:45:ARG:NH2	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:863:LEU:O	1:B:867:LEU:HG	2.19	0.43
1:B:917:GLU:CB	3:C:104:TYR:HE2	2.25	0.43
1:B:1559:GLN:NE2	1:B:1559:GLN:O	2.52	0.43
1:B:1943:LEU:HD13	1:B:2098:VAL:HG22	2.00	0.43
1:B:2264:GLY:O	1:B:2268:GLN:HG2	2.19	0.43
1:B:4184:MET:HA	1:B:4190:ILE:HD13	2.01	0.43
1:B:4813:LEU:HD23	1:B:4813:LEU:HA	1.85	0.43
1:B:4998:LYS:HB2	1:B:4998:LYS:HE3	1.72	0.43
1:E:623:GLU:HG2	2:D:88:PRO:HB3	2.00	0.43
1:E:882:TRP:NE1	1:E:886:ARG:CZ	2.82	0.43
1:G:70:GLU:HG2	1:G:71:GLN:HG3	2.01	0.43
1:G:451:TYR:CZ	1:G:474:ARG:HD2	2.54	0.43
1:G:623:GLU:HG2	2:H:88:PRO:HB3	2.01	0.43
1:G:1012:ASP:HB3	1:G:1015:ALA:HB3	2.01	0.43
1:G:2909:ASP:OD1	1:G:2909:ASP:N	2.52	0.43
1:G:3039:ILE:O	1:G:3043:PHE:CD1	2.72	0.43
1:G:3060:ASP:O	1:G:3064:VAL:HG23	2.19	0.43
1:G:3266:MET:O	1:G:3270:ILE:HG12	2.19	0.43
1:G:4060:LYS:HA	1:G:4063:ASP:OD2	2.19	0.43
1:G:4077:PHE:HE1	1:G:4088:ILE:HG12	1.84	0.43
1:G:4676:GLU:O	1:G:4680:LYS:HG2	2.19	0.43
1:J:1537:ASN:OD1	1:J:1537:ASN:N	2.47	0.43
1:J:2264:GLY:O	1:J:2268:GLN:HG2	2.19	0.43
1:J:2924:GLN:O	1:J:2928:LYS:HG2	2.19	0.43
1:J:4687:TYR:OH	1:J:4699:GLY:O	2.36	0.43
3:F:13:GLN:OE1	3:F:13:GLN:N	2.37	0.43
3:M:32:ASN:OD1	3:M:33:SER:N	2.52	0.43
1:B:133:PHE:HB2	1:B:193:ALA:HB3	2.00	0.43
1:B:745:SER:HB2	1:B:758:ARG:HG2	2.01	0.43
1:B:3039:ILE:O	1:B:3043:PHE:CD1	2.72	0.43
1:B:3060:ASP:O	1:B:3064:VAL:HG23	2.19	0.43
1:B:3268:HIS:CE1	1:B:3272:ILE:HG13	2.54	0.43
1:B:3350:ARG:NE	1:B:3350:ARG:HA	2.34	0.43
1:B:3722:TYR:OH	1:B:3782:MET:HG3	2.19	0.43
1:E:2420:HIS:HB2	1:E:2492:ALA:HA	1.99	0.43
1:E:2765:LYS:HZ2	1:E:2860:PRO:HA	1.83	0.43
1:E:3207:GLU:HG3	1:E:3246:LEU:CD2	2.49	0.43
1:G:1559:GLN:NE2	1:G:1559:GLN:O	2.52	0.43
1:G:1708:ARG:O	1:G:1712:TYR:HD1	2.02	0.43
1:G:1964:ARG:O	1:G:1968:LYS:NZ	2.46	0.43
1:G:2352:VAL:O	1:G:2356:LEU:HG	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3722:TYR:OH	1:G:3782:MET:HG3	2.19	0.43
1:G:3987:ASP:N	1:G:3987:ASP:OD1	2.52	0.43
1:G:4120:ASN:HB2	1:G:4122:MET:HG2	2.00	0.43
1:J:1993:ARG:O	1:J:1997:GLU:HG2	2.19	0.43
1:J:2010:LEU:HD12	1:J:3656:SER:HB2	2.00	0.43
1:J:2713:ASP:HA	1:J:2954:ARG:HD3	2.00	0.43
1:J:2825:LYS:HG3	1:J:2935:TYR:CE1	2.53	0.43
1:J:2909:ASP:N	1:J:2909:ASP:OD1	2.52	0.43
1:J:3100:SER:HB2	1:J:3167:ARG:NH2	2.33	0.43
1:J:3546:ASP:N	1:J:3546:ASP:OD1	2.52	0.43
1:J:4145:VAL:HG22	1:J:4178:LEU:HD13	2.00	0.43
1:J:4949:GLN:NE2	1:J:4953:ASP:OD2	2.52	0.43
3:F:30:SER:HB3	3:F:99:ARG:CB	2.49	0.43
1:B:2924:GLN:O	1:B:2928:LYS:HG2	2.19	0.42
1:B:3207:GLU:HG3	1:B:3246:LEU:CD2	2.49	0.42
1:B:3266:MET:O	1:B:3270:ILE:HG12	2.19	0.42
1:E:340:LYS:HB2	1:E:344:SER:HB3	1.99	0.42
1:E:377:ILE:HG22	1:E:378:LEU:N	2.34	0.42
1:E:3183:VAL:HG23	1:E:3187:ARG:HE	1.84	0.42
1:E:3266:MET:O	1:E:3270:ILE:HG12	2.19	0.42
1:E:3315:LEU:O	1:E:3319:ILE:HG13	2.19	0.42
1:E:3760:LYS:O	1:E:3764:LEU:HG	2.19	0.42
1:E:3944:GLU:HG2	1:E:3946:GLN:H	1.83	0.42
1:G:280:LEU:N	1:G:314:PHE:O	2.49	0.42
1:G:924:MET:HE1	3:M:106:PRO:HB2	2.00	0.42
1:G:2280:VAL:HG21	1:G:2290:LEU:HD11	2.00	0.42
1:G:3398:PHE:CE1	1:G:3451:PHE:HB2	2.54	0.42
1:G:3459:VAL:HG11	1:G:3505:VAL:HG11	1.99	0.42
1:G:3546:ASP:HA	1:G:3549:VAL:HG22	2.00	0.42
1:G:4772:ASP:O	1:G:4776:GLN:HG2	2.19	0.42
1:J:499:THR:HG23	1:J:502:HIS:H	1.83	0.42
1:J:882:TRP:NE1	1:J:886:ARG:CZ	2.82	0.42
1:J:1101:ARG:HG3	1:J:1125:ASN:HB2	2.01	0.42
1:J:2280:VAL:HG21	1:J:2290:LEU:HD11	2.00	0.42
1:J:3722:TYR:OH	1:J:3782:MET:HG3	2.19	0.42
2:D:36:PHE:HZ	2:D:97:LEU:HD22	1.84	0.42
1:B:901:LYS:O	1:B:901:LYS:HG2	2.18	0.42
1:B:2894:LEU:HD21	1:B:2901:THR:HA	2.00	0.42
1:B:3034:LYS:O	1:B:3038:MET:HG3	2.19	0.42
1:B:3315:LEU:O	1:B:3319:ILE:HG13	2.19	0.42
1:B:4209:GLN:H	1:B:4209:GLN:HG3	1.65	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:140:ASP:OD1	1:E:140:ASP:N	2.49	0.42
1:E:2764:GLU:HG3	1:E:2857:PRO:HG3	2.01	0.42
1:E:3034:LYS:O	1:E:3038:MET:HG3	2.19	0.42
1:E:3262:ARG:HB2	1:E:3325:ASN:ND2	2.34	0.42
1:G:1561:VAL:HG23	1:G:1562:ILE:H	1.85	0.42
1:G:2010:LEU:HD12	1:G:3656:SER:HB2	2.00	0.42
1:G:2615:ARG:HB3	1:G:2618:MET:SD	2.59	0.42
1:G:2924:GLN:O	1:G:2928:LYS:HG2	2.19	0.42
1:G:3268:HIS:CE1	1:G:3272:ILE:HG13	2.54	0.42
1:G:4184:MET:HA	1:G:4190:ILE:HD13	2.01	0.42
1:J:280:LEU:N	1:J:314:PHE:O	2.49	0.42
1:J:745:SER:HB2	1:J:758:ARG:HG2	2.01	0.42
1:J:2452:ARG:O	1:J:2456:ILE:HG13	2.19	0.42
1:J:2514:ASN:HB3	1:J:2517:PHE:HB3	2.01	0.42
1:J:2878:LEU:HG	1:J:2882:TYR:CE2	2.55	0.42
1:J:3039:ILE:O	1:J:3043:PHE:CD1	2.72	0.42
1:J:3183:VAL:HG23	1:J:3187:ARG:HE	1.84	0.42
1:J:3768:SER:O	1:J:3772:THR:OG1	2.29	0.42
1:J:4772:ASP:O	1:J:4776:GLN:HG2	2.19	0.42
1:J:4813:LEU:HD23	1:J:4813:LEU:HA	1.85	0.42
3:F:92:VAL:HG12	3:F:122:GLN:OE1	2.19	0.42
3:K:28:ILE:HD12	3:K:28:ILE:HA	1.89	0.42
3:K:92:VAL:HG12	3:K:122:GLN:OE1	2.19	0.42
1:B:477:LEU:O	1:B:480:GLU:HG3	2.19	0.42
1:B:1668:ARG:HG3	1:B:1671:ARG:HH12	1.84	0.42
1:B:2538:THR:O	1:B:2542:SER:N	2.42	0.42
1:B:3334:TRP:HA	1:B:3337:ARG:HE	1.85	0.42
1:B:3546:ASP:OD1	1:B:3546:ASP:N	2.52	0.42
1:B:3944:GLU:HG2	1:B:3946:GLN:H	1.83	0.42
1:B:4676:GLU:O	1:B:4680:LYS:HG2	2.19	0.42
1:E:2280:VAL:HG21	1:E:2290:LEU:HD11	2.00	0.42
1:E:3406:TYR:HE1	1:E:3509:LEU:HG	1.83	0.42
1:E:3722:TYR:OH	1:E:3782:MET:HG3	2.19	0.42
1:E:3969:ILE:HG21	1:E:3980:LEU:HD12	2.00	0.42
1:E:4090:LYS:N	1:E:4121:GLU:O	2.53	0.42
1:G:863:LEU:O	1:G:867:LEU:HG	2.19	0.42
1:G:996:TRP:HA	1:G:999:ASP:OD2	2.19	0.42
1:G:1668:ARG:HG3	1:G:1671:ARG:HH12	1.84	0.42
1:G:1738:LEU:HD12	1:G:1738:LEU:HA	1.80	0.42
1:G:2514:ASN:HB3	1:G:2517:PHE:HB3	2.01	0.42
1:G:2801:ASP:HA	1:G:2804:ILE:HG12	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3050:VAL:HB	1:G:3054:VAL:HG12	2.01	0.42
1:G:4698:LYS:HE3	1:G:4698:LYS:HB2	1.88	0.42
1:J:877:ASN:O	1:J:881:LEU:HG	2.18	0.42
1:J:882:TRP:O	1:J:885:THR:OG1	2.25	0.42
1:J:1012:ASP:HB3	1:J:1015:ALA:HB3	2.01	0.42
1:J:1561:VAL:HG23	1:J:1562:ILE:H	1.85	0.42
1:J:2969:ILE:O	1:J:2972:GLU:HG3	2.19	0.42
1:J:3546:ASP:HA	1:J:3549:VAL:HG22	2.00	0.42
1:J:3989:VAL:HG13	1:J:4023:MET:HE2	2.01	0.42
3:F:32:ASN:OD1	3:F:33:SER:N	2.52	0.42
1:B:735:GLN:OE1	1:B:735:GLN:HA	2.18	0.42
1:B:955:LEU:HD11	1:B:965:TYR:HA	2.00	0.42
1:B:996:TRP:HA	1:B:999:ASP:OD2	2.19	0.42
1:B:2615:ARG:HB3	1:B:2618:MET:SD	2.59	0.42
1:E:246:TYR:HE1	1:E:375:LYS:NZ	2.17	0.42
1:E:1668:ARG:HG3	1:E:1671:ARG:HH12	1.84	0.42
1:E:1708:ARG:O	1:E:1712:TYR:HD1	2.02	0.42
1:E:2264:GLY:O	1:E:2268:GLN:HG2	2.19	0.42
1:E:2799:GLU:O	1:E:2803:GLU:HG2	2.20	0.42
1:E:3530:GLN:OE1	1:E:3530:GLN:N	2.52	0.42
1:G:951:LYS:HE2	1:G:951:LYS:HB3	1.84	0.42
1:G:955:LEU:HD11	1:G:965:TYR:HA	2.00	0.42
1:G:2656:CYS:SG	1:G:2658:PRO:HD2	2.60	0.42
1:G:3034:LYS:O	1:G:3038:MET:HG3	2.19	0.42
1:G:3760:LYS:O	1:G:3764:LEU:HG	2.19	0.42
1:G:4065:PHE:HA	1:G:4068:LEU:HB2	1.99	0.42
1:J:883:ALA:O	1:J:887:ILE:HG13	2.20	0.42
1:J:955:LEU:HD11	1:J:965:TYR:HA	2.00	0.42
1:J:996:TRP:HA	1:J:999:ASP:OD2	2.19	0.42
1:J:1668:ARG:HG3	1:J:1671:ARG:HH12	1.84	0.42
1:J:2312:MET:H	1:J:2312:MET:HG3	1.69	0.42
1:J:2519:LEU:HD22	1:J:2575:ARG:HG3	2.02	0.42
1:J:3266:MET:O	1:J:3270:ILE:HG12	2.19	0.42
1:J:3443:ILE:HG22	1:J:3605:HIS:CG	2.55	0.42
1:J:3678:SER:HA	1:J:3696:ASP:OD2	2.20	0.42
1:J:3916:ILE:O	1:J:3920:VAL:HG23	2.20	0.42
1:J:4160:LEU:O	1:J:4164:LEU:HG	2.20	0.42
1:J:4184:MET:HA	1:J:4190:ILE:HD13	2.01	0.42
2:H:22:CYS:HB2	2:H:48:PHE:CE1	2.54	0.42
3:F:39:GLN:OE1	3:F:45:ARG:NH2	2.39	0.42
1:B:1864:LYS:HE3	1:B:1872:THR:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1870:VAL:HG11	1:B:2097:LEU:HD22	2.02	0.42
1:B:3704:HIS:O	1:B:3708:THR:HG23	2.20	0.42
1:B:4090:LYS:N	1:B:4121:GLU:O	2.53	0.42
1:B:4145:VAL:HG22	1:B:4178:LEU:HD13	2.00	0.42
1:E:499:THR:HG23	1:E:502:HIS:H	1.83	0.42
1:E:2325:PRO:HG2	1:E:2422:ILE:HD13	2.00	0.42
1:E:2965:ARG:HE	1:E:2965:ARG:HB3	1.57	0.42
1:E:3443:ILE:HG22	1:E:3605:HIS:CG	2.55	0.42
1:E:3987:ASP:N	1:E:3987:ASP:OD1	2.52	0.42
1:E:4028:LEU:HD23	1:E:4146:LEU:HD13	2.00	0.42
1:E:4725:LEU:HA	1:E:4737:ILE:HG21	2.02	0.42
1:G:613:ALA:HB1	1:G:618:GLN:HE22	1.83	0.42
1:G:745:SER:HB2	1:G:758:ARG:HG2	2.01	0.42
1:G:1815:LEU:HD22	1:G:1845:VAL:HG21	2.00	0.42
1:G:2568:LEU:HD12	1:G:2568:LEU:O	2.19	0.42
1:G:2799:GLU:O	1:G:2803:GLU:HG2	2.20	0.42
1:G:3406:TYR:HE1	1:G:3509:LEU:HG	1.83	0.42
1:G:3916:ILE:O	1:G:3920:VAL:HG23	2.20	0.42
1:G:4152:GLU:OE1	1:G:4194:TYR:OH	2.28	0.42
1:J:2325:PRO:HG2	1:J:2422:ILE:HD13	2.00	0.42
1:J:2656:CYS:SG	1:J:2658:PRO:HD2	2.60	0.42
1:J:2765:LYS:HZ2	1:J:2860:PRO:HA	1.84	0.42
1:J:3050:VAL:HB	1:J:3054:VAL:HG12	2.01	0.42
1:J:3970:GLN:NE2	1:J:5004:THR:HA	2.33	0.42
1:J:4966:ASP:OD1	1:J:4966:ASP:N	2.53	0.42
1:B:70:GLU:HG2	1:B:71:GLN:HG3	2.01	0.42
1:B:131:LEU:O	1:B:178:ARG:NH2	2.46	0.42
1:B:1101:ARG:HG3	1:B:1125:ASN:HB2	2.02	0.42
1:B:2519:LEU:HD22	1:B:2575:ARG:HG3	2.02	0.42
1:B:2656:CYS:SG	1:B:2658:PRO:HD2	2.60	0.42
1:B:3043:PHE:HZ	1:B:3071:LEU:O	2.03	0.42
1:B:3050:VAL:HB	1:B:3054:VAL:HG12	2.01	0.42
1:B:3443:ILE:HG22	1:B:3605:HIS:CG	2.55	0.42
1:B:3518:LEU:N	1:B:3519:PRO:HD2	2.35	0.42
1:B:3678:SER:HA	1:B:3696:ASP:OD2	2.20	0.42
1:B:3762:ARG:NH2	1:B:4755:GLU:O	2.53	0.42
1:B:3987:ASP:OD1	1:B:3987:ASP:N	2.52	0.42
1:E:372:LEU:O	1:E:374:LYS:HG3	2.20	0.42
1:E:745:SER:HB2	1:E:758:ARG:HG2	2.01	0.42
1:E:863:LEU:O	1:E:867:LEU:HG	2.19	0.42
1:E:2010:LEU:HD12	1:E:3656:SER:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2815:ALA:HB1	1:E:2881:ASN:ND2	2.34	0.42
1:E:2878:LEU:HG	1:E:2882:TYR:CE2	2.54	0.42
1:E:2924:GLN:O	1:E:2928:LYS:HG2	2.19	0.42
1:E:3518:LEU:N	1:E:3519:PRO:HD2	2.35	0.42
1:E:4209:GLN:H	1:E:4209:GLN:HG3	1.65	0.42
1:G:3443:ILE:HG22	1:G:3605:HIS:CG	2.55	0.42
1:G:3592:ILE:O	1:G:3596:VAL:HG22	2.19	0.42
1:G:3678:SER:HA	1:G:3696:ASP:OD2	2.20	0.42
1:G:4063:ASP:OD1	1:G:4064:MET:N	2.53	0.42
1:J:1708:ARG:O	1:J:1712:TYR:HD1	2.02	0.42
1:J:2624:ARG:HH11	1:J:2903:PRO:HA	1.84	0.42
1:J:3406:TYR:HE1	1:J:3509:LEU:HG	1.83	0.42
1:J:3760:LYS:O	1:J:3764:LEU:HG	2.19	0.42
1:J:4063:ASP:OD1	1:J:4064:MET:N	2.53	0.42
3:M:82:MET:SD	3:M:83:ASN:N	2.93	0.42
1:B:581:ASN:OD1	1:B:581:ASN:N	2.53	0.42
1:B:2815:ALA:HB1	1:B:2881:ASN:ND2	2.34	0.42
1:B:3183:VAL:HG23	1:B:3187:ARG:HE	1.84	0.42
1:B:3458:PHE:CE2	1:B:3464:ILE:HD11	2.55	0.42
1:B:3592:ILE:O	1:B:3596:VAL:HG22	2.19	0.42
1:B:4060:LYS:HA	1:B:4063:ASP:OD2	2.19	0.42
1:B:4725:LEU:HA	1:B:4737:ILE:HG21	2.02	0.42
1:B:4772:ASP:O	1:B:4776:GLN:HG2	2.19	0.42
1:E:371:VAL:HG12	1:E:373:LYS:H	1.85	0.42
1:E:451:TYR:CZ	1:E:474:ARG:HD2	2.54	0.42
1:E:883:ALA:O	1:E:887:ILE:HG13	2.20	0.42
1:E:3039:ILE:O	1:E:3043:PHE:CD1	2.72	0.42
1:E:3420:ARG:NH1	1:E:3516:LYS:O	2.51	0.42
1:E:3704:HIS:O	1:E:3708:THR:HG23	2.20	0.42
1:E:4949:GLN:NE2	1:E:4953:ASP:OD2	2.52	0.42
1:G:1101:ARG:HG3	1:G:1125:ASN:HB2	2.02	0.42
1:G:2764:GLU:HG3	1:G:2857:PRO:HG3	2.01	0.42
1:G:3049:LEU:HB3	1:G:3057:PHE:CE1	2.53	0.42
1:G:4846:VAL:HG13	1:J:4813:LEU:HD13	2.01	0.42
1:J:863:LEU:O	1:J:867:LEU:HG	2.19	0.42
1:J:1076:ARG:HB3	1:J:1191:VAL:HG23	2.01	0.42
1:J:2615:ARG:HB3	1:J:2618:MET:SD	2.59	0.42
1:J:3034:LYS:O	1:J:3038:MET:HG3	2.19	0.42
1:J:3268:HIS:CE1	1:J:3272:ILE:HG13	2.54	0.42
1:J:3300:ALA:HB3	1:J:3301:PRO:HD3	2.01	0.42
1:J:3315:LEU:O	1:J:3319:ILE:HG13	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:3350:ARG:NE	1:J:3350:ARG:HA	2.34	0.42
1:J:4698:LYS:HE3	1:J:4698:LYS:HB2	1.88	0.42
1:J:4995:LEU:HD21	1:J:5007:GLU:HB3	2.02	0.42
3:C:32:ASN:OD1	3:C:33:SER:N	2.52	0.42
3:C:100:VAL:HG22	3:C:105:ASN:HB2	2.01	0.42
3:K:30:SER:HB3	3:K:99:ARG:CB	2.48	0.42
3:K:38:ARG:NH1	3:K:89:ASP:OD1	2.52	0.42
3:K:82:MET:SD	3:K:83:ASN:N	2.93	0.42
1:B:663:TYR:OH	1:B:758:ARG:NH2	2.53	0.42
1:B:2969:ILE:O	1:B:2972:GLU:HG3	2.19	0.42
1:E:73:LEU:O	1:E:106:ALA:N	2.46	0.42
1:E:955:LEU:HD11	1:E:965:TYR:HA	2.00	0.42
1:E:2627:VAL:HB	1:E:2678:LEU:HD11	2.01	0.42
1:E:2656:CYS:SG	1:E:2658:PRO:HD2	2.60	0.42
1:E:3261:ALA:HB1	1:E:3321:ARG:HB3	2.02	0.42
1:E:3546:ASP:HA	1:E:3549:VAL:HG22	2.00	0.42
1:G:247:TYR:HD2	1:G:372:LEU:O	2.02	0.42
1:G:306:LYS:H	1:G:306:LYS:HG2	1.69	0.42
1:G:1864:LYS:HE3	1:G:1872:THR:HA	2.01	0.42
1:G:3183:VAL:HG23	1:G:3187:ARG:HE	1.85	0.42
1:J:2867:LEU:HD22	1:J:2928:LYS:HZ3	1.85	0.42
1:J:3043:PHE:HZ	1:J:3071:LEU:O	2.03	0.42
1:J:4090:LYS:N	1:J:4121:GLU:O	2.53	0.42
2:A:36:PHE:HZ	2:A:97:LEU:HD22	1.84	0.42
2:A:41:ASP:OD1	2:A:42:ARG:N	2.53	0.42
3:F:104:TYR:CD1	3:F:104:TYR:C	2.92	0.42
3:M:92:VAL:HG12	3:M:122:GLN:OE1	2.19	0.42
1:B:2325:PRO:HG2	1:B:2422:ILE:HD13	2.00	0.42
1:B:2627:VAL:HB	1:B:2678:LEU:HD11	2.01	0.42
1:B:3261:ALA:HB1	1:B:3321:ARG:HB3	2.02	0.42
1:B:4063:ASP:OD1	1:B:4064:MET:N	2.53	0.42
1:B:4759:ASP:OD1	1:B:4759:ASP:N	2.53	0.42
1:E:1683:HIS:NE2	1:E:1798:LEU:O	2.52	0.42
1:E:2485:LEU:HD23	1:E:2485:LEU:HA	1.95	0.42
1:E:3043:PHE:HZ	1:E:3071:LEU:O	2.02	0.42
1:E:3458:PHE:CE2	1:E:3464:ILE:HD11	2.55	0.42
1:E:4087:LEU:HB3	1:E:4122:MET:HB2	2.01	0.42
1:G:389:PHE:HD1	1:G:390:LEU:N	2.18	0.42
1:G:1508:ARG:NH2	1:J:2773:ASN:OD1	2.42	0.42
1:G:2815:ALA:HB1	1:G:2881:ASN:ND2	2.34	0.42
1:G:3043:PHE:HZ	1:G:3071:LEU:O	2.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3458:PHE:CE2	1:G:3464:ILE:HD11	2.55	0.42
1:G:4759:ASP:N	1:G:4759:ASP:OD1	2.53	0.42
1:G:4966:ASP:OD1	1:G:4966:ASP:N	2.53	0.42
1:J:389:PHE:HD1	1:J:390:LEU:N	2.18	0.42
1:J:2815:ALA:HB1	1:J:2881:ASN:ND2	2.34	0.42
1:J:3518:LEU:N	1:J:3519:PRO:HD2	2.35	0.42
3:F:82:MET:SD	3:F:83:ASN:N	2.93	0.42
1:B:794:GLY:HA2	1:B:810:PRO:HB3	2.02	0.42
1:B:1012:ASP:HB3	1:B:1015:ALA:HB3	2.01	0.42
1:B:2452:ARG:O	1:B:2456:ILE:HG13	2.19	0.42
1:B:2568:LEU:HD12	1:B:2568:LEU:O	2.19	0.42
1:B:2799:GLU:O	1:B:2803:GLU:HG2	2.20	0.42
1:B:3077:ALA:HB3	1:B:3078:ARG:NH1	2.35	0.42
1:B:4087:LEU:HB3	1:B:4122:MET:HB2	2.01	0.42
1:E:1973:GLN:OE1	1:E:3641:LEU:HB2	2.20	0.42
1:E:2615:ARG:HB3	1:E:2618:MET:SD	2.59	0.42
1:E:3011:THR:OG1	1:E:3070:ILE:HG12	2.20	0.42
1:E:3016:TYR:HE2	1:E:3030:HIS:HB3	1.84	0.42
1:E:3194:LEU:O	1:E:3197:LEU:HG	2.20	0.42
1:E:3272:ILE:C	1:E:3275:PRO:HD2	2.40	0.42
1:E:3546:ASP:OD1	1:E:3546:ASP:N	2.52	0.42
1:E:3878:ASP:O	1:E:3882:GLN:HG3	2.20	0.42
1:E:4552:LEU:HD22	1:E:4663:CYS:SG	2.60	0.42
1:G:883:ALA:O	1:G:887:ILE:HG13	2.20	0.42
1:G:1699:GLU:HG3	1:G:1810:LYS:HE3	2.02	0.42
1:G:1927:LEU:HD13	1:G:2097:LEU:HD11	2.02	0.42
1:G:2380:ILE:O	1:G:2384:ILE:HG13	2.20	0.42
1:G:2624:ARG:HH11	1:G:2903:PRO:HA	1.84	0.42
1:G:2690:LYS:HE3	1:G:2690:LYS:HB2	1.91	0.42
1:G:3062:PRO:HA	1:G:3065:VAL:HG22	2.02	0.42
1:G:3194:LEU:O	1:G:3197:LEU:HG	2.20	0.42
1:G:3261:ALA:HB1	1:G:3321:ARG:HB3	2.02	0.42
1:G:3518:LEU:N	1:G:3519:PRO:HD2	2.35	0.42
1:G:4131:ARG:HG3	1:G:4132:PHE:CD2	2.55	0.42
1:G:4145:VAL:HG22	1:G:4178:LEU:HD13	2.00	0.42
1:J:451:TYR:CZ	1:J:474:ARG:HD2	2.54	0.42
1:J:747:CYS:HB2	1:J:808:TYR:CE2	2.55	0.42
1:J:882:TRP:CD1	1:J:886:ARG:CZ	3.03	0.42
1:J:1445:PRO:HG2	1:J:1501:VAL:HG21	2.02	0.42
1:J:2627:VAL:HB	1:J:2678:LEU:HD11	2.01	0.42
1:J:3207:GLU:HG3	1:J:3246:LEU:CD2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:3564:GLU:H	1:J:3564:GLU:HG3	1.73	0.42
1:J:3592:ILE:O	1:J:3596:VAL:HG22	2.19	0.42
1:J:3962:PHE:O	1:J:3966:THR:HG23	2.20	0.42
1:J:4995:LEU:HD23	1:J:4995:LEU:HA	1.83	0.42
2:H:41:ASP:OD1	2:H:42:ARG:N	2.53	0.42
2:I:22:CYS:HB2	2:I:48:PHE:CE1	2.54	0.42
2:I:36:PHE:HZ	2:I:97:LEU:HD22	1.84	0.42
3:C:38:ARG:NH1	3:C:89:ASP:OD1	2.52	0.42
1:B:2328:GLY:HA3	1:B:2425:PHE:CE2	2.55	0.41
1:E:979:PRO:HA	1:E:982:THR:HG22	2.02	0.41
1:E:1302:ARG:H	1:E:1302:ARG:HG2	1.66	0.41
1:E:2519:LEU:HD22	1:E:2575:ARG:HG3	2.02	0.41
1:E:2624:ARG:HH11	1:E:2903:PRO:HA	1.84	0.41
1:E:2909:ASP:N	1:E:2909:ASP:OD1	2.52	0.41
1:E:3075:LEU:H	1:E:3146:HIS:CE1	2.38	0.41
1:E:3693:LYS:HZ2	1:E:3694:LYS:HD2	1.85	0.41
1:E:4060:LYS:HA	1:E:4063:ASP:OD2	2.19	0.41
1:E:4772:ASP:O	1:E:4776:GLN:HG2	2.19	0.41
1:G:663:TYR:CE1	1:G:745:SER:HB3	2.55	0.41
1:G:1445:PRO:HG2	1:G:1501:VAL:HG21	2.02	0.41
1:G:2878:LEU:HG	1:G:2882:TYR:CE2	2.54	0.41
1:G:3016:TYR:HE2	1:G:3030:HIS:HB3	1.84	0.41
1:G:3206:LEU:O	1:G:3208:PRO:HD3	2.20	0.41
1:G:3207:GLU:HG3	1:G:3246:LEU:CD2	2.49	0.41
1:G:3334:TRP:HA	1:G:3337:ARG:HE	1.85	0.41
1:G:3762:ARG:NH2	1:G:4755:GLU:O	2.53	0.41
1:J:1132:TRP:CE2	1:J:1136:SER:HB2	2.55	0.41
1:J:1934:SER:O	1:J:1938:GLN:HG2	2.20	0.41
1:J:3077:ALA:HB3	1:J:3078:ARG:NH1	2.35	0.41
1:J:3704:HIS:O	1:J:3708:THR:HG23	2.20	0.41
1:J:3762:ARG:NH2	1:J:4755:GLU:O	2.53	0.41
1:J:3987:ASP:OD1	1:J:3987:ASP:N	2.52	0.41
1:J:4060:LYS:HA	1:J:4063:ASP:OD2	2.19	0.41
1:J:4131:ARG:HG3	1:J:4132:PHE:CD2	2.55	0.41
1:J:4552:LEU:HD22	1:J:4663:CYS:SG	2.60	0.41
1:J:4759:ASP:N	1:J:4759:ASP:OD1	2.53	0.41
2:A:26:TYR:HA	2:A:100:ASP:O	2.20	0.41
2:D:41:ASP:OD1	2:D:42:ARG:N	2.53	0.41
1:B:140:ASP:OD1	1:B:140:ASP:N	2.49	0.41
1:B:365:LYS:HE2	1:B:369:LEU:HD11	2.01	0.41
1:B:979:PRO:HA	1:B:982:THR:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1561:VAL:HG23	1:B:1562:ILE:H	1.85	0.41
1:B:3010:PHE:O	1:B:3014:CYS:HB2	2.20	0.41
1:B:3850:GLN:HE21	1:B:3870:ASN:H	1.68	0.41
1:E:732:SER:O	1:E:735:GLN:HG2	2.20	0.41
1:E:1101:ARG:HG3	1:E:1125:ASN:HB2	2.02	0.41
1:E:2514:ASN:HB3	1:E:2517:PHE:HB3	2.01	0.41
1:E:3050:VAL:HB	1:E:3054:VAL:HG12	2.01	0.41
1:E:3850:GLN:HE21	1:E:3870:ASN:H	1.68	0.41
1:E:3916:ILE:O	1:E:3920:VAL:HG23	2.20	0.41
1:G:1076:ARG:HB3	1:G:1191:VAL:HG23	2.01	0.41
1:G:1973:GLN:OE1	1:G:3641:LEU:HB2	2.20	0.41
1:G:2519:LEU:HD22	1:G:2575:ARG:HG3	2.02	0.41
1:G:3110:LEU:HD23	1:G:3183:VAL:HG12	2.02	0.41
1:G:3300:ALA:HB3	1:G:3301:PRO:HD3	2.01	0.41
1:G:3315:LEU:O	1:G:3319:ILE:HG13	2.19	0.41
1:J:246:TYR:HE1	1:J:375:LYS:NZ	2.16	0.41
1:J:1927:LEU:HD13	1:J:2097:LEU:HD11	2.02	0.41
1:J:2357:LEU:HD23	1:J:2357:LEU:HA	1.92	0.41
1:J:2380:ILE:O	1:J:2384:ILE:HG13	2.20	0.41
1:J:2799:GLU:O	1:J:2803:GLU:HG2	2.20	0.41
1:J:3272:ILE:C	1:J:3275:PRO:HD2	2.41	0.41
1:J:3327:LEU:HD13	1:J:3368:ARG:NH1	2.36	0.41
1:J:3458:PHE:CE2	1:J:3464:ILE:HD11	2.55	0.41
1:J:3526:ALA:HB2	1:J:3576:TYR:CE2	2.56	0.41
1:J:4214:LYS:HE2	1:J:4214:LYS:HB3	1.92	0.41
3:M:105:ASN:OD1	3:M:111:ASN:HB2	2.19	0.41
1:B:1708:ARG:O	1:B:1712:TYR:HD1	2.02	0.41
1:B:2380:ILE:O	1:B:2384:ILE:HG13	2.20	0.41
1:B:2610:LEU:O	1:B:2614:ILE:HG12	2.20	0.41
1:B:2661:TRP:CZ3	1:B:2664:PHE:HD2	2.38	0.41
1:B:2878:LEU:HG	1:B:2882:TYR:CE2	2.54	0.41
1:B:3206:LEU:O	1:B:3208:PRO:HD3	2.20	0.41
1:B:3760:LYS:O	1:B:3764:LEU:HG	2.19	0.41
1:B:3916:ILE:O	1:B:3920:VAL:HG23	2.20	0.41
1:B:4178:LEU:HD11	1:B:4194:TYR:HB3	2.02	0.41
1:E:50:GLU:HA	1:E:51:PRO:HD3	1.94	0.41
1:E:2610:LEU:O	1:E:2614:ILE:HG12	2.20	0.41
1:E:3334:TRP:HA	1:E:3337:ARG:HE	1.84	0.41
1:E:3526:ALA:HB2	1:E:3576:TYR:CE2	2.56	0.41
1:E:3562:LYS:HB2	1:E:3562:LYS:HE2	1.81	0.41
1:E:3678:SER:HA	1:E:3696:ASP:OD2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3762:ARG:NH2	1:E:4755:GLU:O	2.53	0.41
1:E:4157:ASP:O	1:E:4161:ARG:HG2	2.21	0.41
1:E:4838:VAL:O	1:E:4841:VAL:HG12	2.21	0.41
1:E:4851:TYR:HD1	1:E:4916:PHE:CE1	2.38	0.41
1:G:581:ASN:N	1:G:581:ASN:OD1	2.53	0.41
1:G:1870:VAL:HG11	1:G:2097:LEU:HD22	2.02	0.41
1:G:2463:LEU:O	1:G:2467:VAL:HG23	2.21	0.41
1:G:2633:LEU:HB3	1:G:2689:LYS:HZ1	1.85	0.41
1:G:3272:ILE:C	1:G:3275:PRO:HD2	2.41	0.41
1:G:3458:PHE:HE2	1:G:3464:ILE:HD11	1.85	0.41
1:G:3850:GLN:NE2	1:G:3870:ASN:H	2.19	0.41
1:G:3878:ASP:O	1:G:3882:GLN:HG3	2.20	0.41
1:G:4091:LYS:NZ	1:G:4092:ASP:OD1	2.48	0.41
1:G:4995:LEU:HD21	1:G:5007:GLU:HB3	2.02	0.41
1:J:794:GLY:HA2	1:J:810:PRO:HB3	2.02	0.41
1:J:1758:ARG:NH2	1:J:2036:GLN:OE1	2.51	0.41
1:J:3562:LYS:HE2	1:J:3562:LYS:HB2	1.81	0.41
1:J:3639:THR:N	1:J:3640:PRO:HD2	2.36	0.41
1:J:3979:SER:O	1:J:3983:SER:OG	2.31	0.41
1:J:4178:LEU:HD11	1:J:4194:TYR:HB3	2.03	0.41
1:J:4679:ARG:HH21	1:J:5017:ARG:NH1	2.18	0.41
2:A:22:CYS:HB2	2:A:48:PHE:CE1	2.54	0.41
1:B:73:LEU:HD12	1:B:73:LEU:HA	1.92	0.41
1:B:623:GLU:HG2	2:A:88:PRO:HB3	2.01	0.41
1:B:2514:ASN:HB3	1:B:2517:PHE:HB3	2.01	0.41
1:B:2624:ARG:HH11	1:B:2903:PRO:HA	1.84	0.41
1:B:2657:LEU:H	1:B:2711:PRO:HG3	1.85	0.41
1:B:3075:LEU:H	1:B:3146:HIS:CE1	2.38	0.41
1:B:3546:ASP:HA	1:B:3549:VAL:HG22	2.01	0.41
1:B:3850:GLN:NE2	1:B:3870:ASN:H	2.19	0.41
1:E:70:GLU:HG2	1:E:71:GLN:HG3	2.01	0.41
1:E:1934:SER:O	1:E:1938:GLN:HG2	2.20	0.41
1:E:2328:GLY:HA3	1:E:2425:PHE:CE2	2.55	0.41
1:E:2532:ALA:O	1:E:2536:LEU:HD23	2.21	0.41
1:E:3639:THR:N	1:E:3640:PRO:HD2	2.36	0.41
1:E:4160:LEU:O	1:E:4164:LEU:HG	2.20	0.41
1:G:882:TRP:CD1	1:G:886:ARG:CZ	3.03	0.41
1:G:1132:TRP:CE2	1:G:1136:SER:HB2	2.56	0.41
1:G:1934:SER:O	1:G:1938:GLN:HG2	2.20	0.41
1:G:2610:LEU:O	1:G:2614:ILE:HG12	2.20	0.41
1:G:2627:VAL:HB	1:G:2678:LEU:HD11	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2657:LEU:H	1:G:2711:PRO:HG3	1.85	0.41
1:G:3077:ALA:HB3	1:G:3078:ARG:NH1	2.35	0.41
1:G:4068:LEU:HD23	1:G:4068:LEU:HA	1.89	0.41
1:G:4090:LYS:N	1:G:4121:GLU:O	2.53	0.41
1:G:4552:LEU:HD22	1:G:4663:CYS:SG	2.60	0.41
3:C:82:MET:SD	3:C:83:ASN:N	2.93	0.41
3:M:104:TYR:CE1	3:M:106:PRO:HG3	2.55	0.41
1:B:451:TYR:CZ	1:B:474:ARG:HD2	2.54	0.41
1:B:1132:TRP:CE2	1:B:1136:SER:HB2	2.56	0.41
1:B:2463:LEU:O	1:B:2467:VAL:HG23	2.21	0.41
1:B:3194:LEU:O	1:B:3197:LEU:HG	2.20	0.41
1:B:3272:ILE:C	1:B:3275:PRO:HD2	2.40	0.41
1:B:3836:MET:HE2	1:B:3836:MET:HB2	1.88	0.41
1:B:4131:ARG:HG3	1:B:4132:PHE:CD2	2.55	0.41
1:B:4160:LEU:O	1:B:4164:LEU:HG	2.20	0.41
1:E:1132:TRP:CE2	1:E:1136:SER:HB2	2.56	0.41
1:E:2661:TRP:CZ3	1:E:2664:PHE:HD2	2.38	0.41
1:E:3420:ARG:HD2	1:E:3519:PRO:HG2	2.03	0.41
1:E:4063:ASP:OD1	1:E:4064:MET:N	2.53	0.41
1:E:4131:ARG:HG3	1:E:4132:PHE:CD2	2.55	0.41
1:G:246:TYR:HE1	1:G:375:LYS:NZ	2.16	0.41
1:G:979:PRO:HA	1:G:982:THR:HG22	2.02	0.41
1:G:3509:LEU:HD23	1:G:3509:LEU:HA	1.88	0.41
1:G:3850:GLN:HE21	1:G:3870:ASN:H	1.68	0.41
1:G:3962:PHE:O	1:G:3966:THR:HG23	2.20	0.41
1:G:4188:ARG:HA	1:G:4188:ARG:NE	2.35	0.41
1:J:247:TYR:HD2	1:J:372:LEU:HB3	1.81	0.41
1:J:663:TYR:CE1	1:J:745:SER:HB3	2.55	0.41
1:J:663:TYR:OH	1:J:758:ARG:NH2	2.53	0.41
1:J:3010:PHE:O	1:J:3014:CYS:HB2	2.20	0.41
1:J:3062:PRO:HA	1:J:3065:VAL:HG22	2.02	0.41
1:J:3765:TYR:CZ	1:J:3769:ARG:HD3	2.56	0.41
1:J:4652:LEU:O	1:J:4656:LEU:HG	2.21	0.41
2:D:22:CYS:HB2	2:D:48:PHE:CE1	2.54	0.41
1:B:110:ARG:HD3	1:B:115:ARG:HE	1.86	0.41
1:B:389:PHE:HD1	1:B:390:LEU:N	2.18	0.41
1:B:732:SER:O	1:B:735:GLN:HG2	2.20	0.41
1:B:1076:ARG:HB3	1:B:1191:VAL:HG23	2.01	0.41
1:B:1302:ARG:H	1:B:1302:ARG:HG2	1.66	0.41
1:B:2867:LEU:HD12	1:B:2867:LEU:HA	1.82	0.41
1:B:3327:LEU:HD22	1:B:3368:ARG:NH1	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3878:ASP:O	1:B:3882:GLN:HG3	2.20	0.41
1:B:4552:LEU:HD22	1:B:4663:CYS:SG	2.60	0.41
1:E:355:LEU:HD22	1:E:379:HIS:HA	2.03	0.41
1:E:389:PHE:HD1	1:E:390:LEU:N	2.18	0.41
1:E:1699:GLU:HG3	1:E:1810:LYS:HE3	2.02	0.41
1:E:1870:VAL:HG11	1:E:2097:LEU:HD22	2.02	0.41
1:E:2380:ILE:O	1:E:2384:ILE:HG13	2.20	0.41
1:E:2463:LEU:O	1:E:2467:VAL:HG23	2.21	0.41
1:E:3110:LEU:HD23	1:E:3183:VAL:HG12	2.02	0.41
1:E:3592:ILE:O	1:E:3596:VAL:HG22	2.19	0.41
1:E:4759:ASP:OD1	1:E:4759:ASP:N	2.53	0.41
1:G:568:LEU:HD12	1:G:602:VAL:HG13	2.03	0.41
1:G:1115:LEU:HD23	1:G:1123:VAL:HG21	2.03	0.41
1:G:4087:LEU:HB3	1:G:4122:MET:HB2	2.01	0.41
1:G:4178:LEU:HD11	1:G:4194:TYR:HB3	2.03	0.41
1:J:355:LEU:HD22	1:J:379:HIS:HA	2.03	0.41
1:J:568:LEU:HD12	1:J:602:VAL:HG13	2.03	0.41
1:J:1699:GLU:HG3	1:J:1810:LYS:HE3	2.02	0.41
1:J:1973:GLN:OE1	1:J:3641:LEU:HB2	2.20	0.41
1:J:3038:MET:HE2	1:J:3038:MET:C	2.40	0.41
1:J:3334:TRP:HA	1:J:3337:ARG:HE	1.84	0.41
1:J:4666:VAL:HG21	1:J:4783:ILE:HD11	2.03	0.41
1:J:4725:LEU:HA	1:J:4737:ILE:HG21	2.02	0.41
2:I:41:ASP:OD1	2:I:42:ARG:N	2.53	0.41
1:B:1927:LEU:HD13	1:B:2097:LEU:HD11	2.02	0.41
1:B:1973:GLN:OE1	1:B:3641:LEU:HB2	2.20	0.41
1:B:2532:ALA:O	1:B:2536:LEU:HD23	2.21	0.41
1:B:3327:LEU:HD13	1:B:3368:ARG:NH1	2.36	0.41
1:B:3526:ALA:HB2	1:B:3576:TYR:CE2	2.56	0.41
1:B:4838:VAL:O	1:B:4841:VAL:HG12	2.21	0.41
1:B:4851:TYR:HD1	1:B:4916:PHE:CE1	2.38	0.41
1:E:1012:ASP:HB3	1:E:1015:ALA:HB3	2.01	0.41
1:E:1076:ARG:HB3	1:E:1191:VAL:HG23	2.01	0.41
1:E:3300:ALA:HB3	1:E:3301:PRO:HD3	2.01	0.41
1:E:4541:TRP:O	1:E:4544:LEU:HG	2.21	0.41
1:G:110:ARG:HD3	1:G:115:ARG:HE	1.86	0.41
1:G:172:VAL:HA	1:G:178:ARG:O	2.21	0.41
1:G:663:TYR:OH	1:G:758:ARG:NH2	2.53	0.41
1:G:1619:ARG:HE	1:G:1619:ARG:HB2	1.72	0.41
1:G:2969:ILE:O	1:G:2972:GLU:HG3	2.19	0.41
1:G:3292:PRO:HA	1:G:3293:PRO:HD3	1.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3562:LYS:HE2	1:G:3562:LYS:HB2	1.81	0.41
1:G:4160:LEU:O	1:G:4164:LEU:HG	2.20	0.41
1:G:4666:VAL:HG21	1:G:4783:ILE:HD11	2.03	0.41
1:J:979:PRO:HA	1:J:982:THR:HG22	2.02	0.41
1:J:2633:LEU:HB3	1:J:2689:LYS:HZ1	1.86	0.41
1:J:2764:GLU:HG3	1:J:2857:PRO:HG3	2.01	0.41
1:J:3141:THR:OG1	1:J:3193:CYS:SG	2.56	0.41
1:J:3261:ALA:HB1	1:J:3321:ARG:HB3	2.02	0.41
1:J:3420:ARG:HD2	1:J:3519:PRO:HG2	2.03	0.41
1:J:3850:GLN:NE2	1:J:3870:ASN:H	2.19	0.41
2:D:26:TYR:HA	2:D:100:ASP:O	2.21	0.41
2:I:26:TYR:HA	2:I:100:ASP:O	2.20	0.41
3:C:104:TYR:CE1	3:C:106:PRO:HG3	2.53	0.41
3:F:28:ILE:HD12	3:F:28:ILE:HA	1.89	0.41
1:B:747:CYS:HB2	1:B:808:TYR:CE2	2.55	0.41
1:B:883:ALA:O	1:B:887:ILE:HG13	2.20	0.41
1:B:1115:LEU:HD23	1:B:1123:VAL:HG21	2.03	0.41
1:B:2909:ASP:N	1:B:2909:ASP:OD1	2.52	0.41
1:B:3011:THR:OG1	1:B:3070:ILE:HG12	2.20	0.41
1:B:3016:TYR:HE2	1:B:3030:HIS:HB3	1.84	0.41
1:E:663:TYR:OH	1:E:758:ARG:NH2	2.53	0.41
1:E:1561:VAL:HG23	1:E:1562:ILE:H	1.84	0.41
1:E:1864:LYS:HE3	1:E:1872:THR:HA	2.02	0.41
1:E:1964:ARG:O	1:E:1968:LYS:NZ	2.46	0.41
1:E:3010:PHE:O	1:E:3014:CYS:HB2	2.20	0.41
1:E:3765:TYR:CZ	1:E:3769:ARG:HD3	2.56	0.41
1:E:3949:ARG:O	1:E:3953:LYS:HG3	2.21	0.41
1:G:50:GLU:HA	1:G:51:PRO:HD3	1.94	0.41
1:G:127:MET:O	1:G:130:LYS:NZ	2.50	0.41
1:G:747:CYS:HB2	1:G:808:TYR:CE2	2.55	0.41
1:G:3011:THR:OG1	1:G:3070:ILE:HG12	2.20	0.41
1:G:3704:HIS:O	1:G:3708:THR:HG23	2.20	0.41
1:G:4851:TYR:HD1	1:G:4916:PHE:CE1	2.38	0.41
1:J:2670:GLU:OE1	1:J:2673:HIS:HB3	2.21	0.41
1:J:3011:THR:OG1	1:J:3070:ILE:HG12	2.20	0.41
1:J:3016:TYR:HE2	1:J:3030:HIS:HB3	1.84	0.41
1:J:3075:LEU:H	1:J:3146:HIS:CE1	2.38	0.41
1:J:3277:LEU:HG	1:J:3341:PHE:HZ	1.86	0.41
1:J:3327:LEU:HD22	1:J:3368:ARG:NH1	2.36	0.41
1:J:4087:LEU:HB3	1:J:4122:MET:HB2	2.02	0.41
1:J:4157:ASP:O	1:J:4161:ARG:HG2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:4890:GLY:HA2	1:J:4900:GLU:OE2	2.21	0.41
2:H:36:PHE:HZ	2:H:97:LEU:HD22	1.84	0.41
3:C:101:PRO:HD2	3:C:104:TYR:O	2.20	0.41
3:C:104:TYR:CD1	3:C:104:TYR:C	2.94	0.41
1:B:424:LYS:HE2	1:B:424:LYS:HB2	1.85	0.41
1:B:684:VAL:HG22	1:B:781:VAL:HG12	2.02	0.41
1:B:1934:SER:O	1:B:1938:GLN:HG2	2.20	0.41
1:B:2536:LEU:HA	1:B:2541:PHE:HB3	2.03	0.41
1:B:2787:THR:OG1	1:B:2788:HIS:N	2.54	0.41
1:B:3420:ARG:HD2	1:B:3519:PRO:HG2	2.03	0.41
1:B:3445:TRP:HA	1:B:3451:PHE:CD1	2.49	0.41
1:B:4046:ASP:HA	1:B:4049:VAL:HG22	2.03	0.41
1:B:4157:ASP:O	1:B:4161:ARG:HG2	2.21	0.41
1:B:4188:ARG:HA	1:B:4188:ARG:NE	2.35	0.41
1:B:4995:LEU:HD21	1:B:5007:GLU:HB3	2.02	0.41
1:E:172:VAL:HA	1:E:178:ARG:O	2.21	0.41
1:E:568:LEU:HD12	1:E:602:VAL:HG13	2.03	0.41
1:E:747:CYS:HB2	1:E:808:TYR:CE2	2.55	0.41
1:E:882:TRP:CD1	1:E:886:ARG:CZ	3.03	0.41
1:E:1440:PHE:CD2	1:E:1560:ASN:HB3	2.56	0.41
1:E:1445:PRO:HG2	1:E:1501:VAL:HG21	2.02	0.41
1:E:3077:ALA:HB3	1:E:3078:ARG:NH1	2.35	0.41
1:E:3533:ILE:HG13	1:E:3533:ILE:H	1.74	0.41
1:E:4178:LEU:HD11	1:E:4194:TYR:HB3	2.03	0.41
1:E:4188:ARG:HA	1:E:4188:ARG:NE	2.35	0.41
1:E:4214:LYS:HE2	1:E:4214:LYS:HB3	1.91	0.41
1:E:4553:ASN:O	1:E:4557:ARG:HG3	2.21	0.41
1:E:4652:LEU:O	1:E:4656:LEU:HG	2.21	0.41
1:E:4679:ARG:HH21	1:E:5017:ARG:NH1	2.18	0.41
1:G:138:GLN:NE2	1:G:140:ASP:O	2.54	0.41
1:G:794:GLY:HA2	1:G:810:PRO:HB3	2.02	0.41
1:G:2532:ALA:O	1:G:2536:LEU:HD23	2.21	0.41
1:G:2661:TRP:CZ3	1:G:2664:PHE:HD2	2.39	0.41
1:G:3420:ARG:HD2	1:G:3519:PRO:HG2	2.03	0.41
1:G:3943:ILE:HD11	1:G:4002:LYS:HE2	2.03	0.41
1:G:4157:ASP:O	1:G:4161:ARG:HG2	2.20	0.41
1:G:4541:TRP:O	1:G:4544:LEU:HG	2.21	0.41
1:G:4890:GLY:HA2	1:G:4900:GLU:OE2	2.21	0.41
1:J:70:GLU:HG2	1:J:71:GLN:HG3	2.01	0.41
1:J:172:VAL:HA	1:J:178:ARG:O	2.21	0.41
1:J:684:VAL:HG22	1:J:781:VAL:HG12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:732:SER:O	1:J:735:GLN:HG2	2.20	0.41
1:J:1115:LEU:HD23	1:J:1123:VAL:HG21	2.03	0.41
1:J:1864:LYS:HE3	1:J:1872:THR:HA	2.02	0.41
1:J:2325:PRO:HA	1:J:2425:PHE:CD2	2.56	0.41
1:J:2463:LEU:O	1:J:2467:VAL:HG23	2.21	0.41
1:J:2532:ALA:O	1:J:2536:LEU:HD23	2.21	0.41
1:J:2610:LEU:O	1:J:2614:ILE:HG12	2.20	0.41
1:J:2787:THR:OG1	1:J:2788:HIS:N	2.54	0.41
1:J:3194:LEU:O	1:J:3197:LEU:HG	2.20	0.41
1:J:3530:GLN:OE1	1:J:3530:GLN:N	2.52	0.41
1:J:3943:ILE:HD11	1:J:4002:LYS:HE2	2.03	0.41
1:J:4188:ARG:HA	1:J:4188:ARG:NE	2.35	0.41
1:J:4553:ASN:O	1:J:4557:ARG:HG3	2.21	0.41
1:B:355:LEU:HD22	1:B:379:HIS:HA	2.03	0.41
1:B:1445:PRO:HG2	1:B:1501:VAL:HG21	2.02	0.41
1:B:2325:PRO:HA	1:B:2425:PHE:CD2	2.56	0.41
1:B:2670:GLU:OE1	1:B:2673:HIS:HB3	2.21	0.41
1:B:3509:LEU:HD23	1:B:3509:LEU:HA	1.88	0.41
1:B:3530:GLN:OE1	1:B:3530:GLN:N	2.52	0.41
1:B:3949:ARG:O	1:B:3953:LYS:HG3	2.21	0.41
1:E:1927:LEU:HD13	1:E:2097:LEU:HD11	2.02	0.41
1:E:3016:TYR:CE2	1:E:3030:HIS:HB3	2.56	0.41
1:E:3327:LEU:HD13	1:E:3368:ARG:NH1	2.36	0.41
1:E:3458:PHE:HE2	1:E:3464:ILE:HD11	1.85	0.41
1:E:3568:SER:HA	1:E:3571:TRP:CD1	2.56	0.41
1:E:3844:LEU:HD11	1:J:76:ARG:HH21	1.86	0.41
1:E:4813:LEU:HD13	1:J:4846:VAL:HG13	2.03	0.41
1:E:4890:GLY:HA2	1:E:4900:GLU:OE2	2.21	0.41
1:G:2325:PRO:HA	1:G:2425:PHE:CD2	2.56	0.41
1:G:2670:GLU:OE1	1:G:2673:HIS:HB3	2.21	0.41
1:G:3775:ALA:O	1:G:3779:VAL:HG13	2.21	0.41
1:J:924:MET:HE1	3:K:106:PRO:CB	2.50	0.41
1:J:1440:PHE:CD2	1:J:1560:ASN:HB3	2.56	0.41
1:J:3850:GLN:HE21	1:J:3870:ASN:H	1.68	0.41
1:J:3878:ASP:O	1:J:3882:GLN:HG3	2.20	0.41
1:B:76:ARG:HH21	1:G:3844:LEU:HD11	1.86	0.40
1:B:1032:LYS:HB3	1:B:1036:ARG:HH22	1.86	0.40
1:B:1945:TYR:O	1:B:1949:GLN:HG2	2.21	0.40
1:B:2759:ALA:HB1	1:B:2806:ARG:HB2	2.03	0.40
1:B:3003:LEU:O	1:B:3007:ASN:ND2	2.55	0.40
1:B:3277:LEU:HG	1:B:3341:PHE:HZ	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3420:ARG:NH1	1:B:3516:LYS:O	2.51	0.40
1:B:4541:TRP:O	1:B:4544:LEU:HG	2.21	0.40
1:B:4553:ASN:O	1:B:4557:ARG:HG3	2.21	0.40
1:E:684:VAL:HG22	1:E:781:VAL:HG12	2.02	0.40
1:E:2536:LEU:HA	1:E:2541:PHE:HB3	2.03	0.40
1:E:2759:ALA:HB1	1:E:2806:ARG:HB2	2.03	0.40
1:E:2787:THR:OG1	1:E:2788:HIS:N	2.54	0.40
1:E:3277:LEU:HG	1:E:3341:PHE:HZ	1.86	0.40
1:E:3850:GLN:NE2	1:E:3870:ASN:H	2.19	0.40
1:E:3962:PHE:O	1:E:3966:THR:HG23	2.20	0.40
1:G:355:LEU:HD22	1:G:379:HIS:HA	2.03	0.40
1:G:732:SER:O	1:G:735:GLN:HG2	2.20	0.40
1:G:3075:LEU:H	1:G:3146:HIS:CE1	2.38	0.40
1:G:3327:LEU:HD13	1:G:3368:ARG:NH1	2.36	0.40
1:G:4838:VAL:O	1:G:4841:VAL:HG12	2.20	0.40
1:J:2645:THR:HG23	1:J:2702:CYS:HA	2.03	0.40
1:J:2657:LEU:H	1:J:2711:PRO:HG3	1.85	0.40
1:J:3110:LEU:HD23	1:J:3183:VAL:HG12	2.02	0.40
1:J:3201:MET:HA	1:J:3201:MET:HE2	2.03	0.40
1:J:3206:LEU:O	1:J:3208:PRO:HD3	2.20	0.40
1:J:3775:ALA:O	1:J:3779:VAL:HG13	2.21	0.40
1:J:3949:ARG:O	1:J:3953:LYS:HG3	2.21	0.40
1:J:4838:VAL:O	1:J:4841:VAL:HG12	2.21	0.40
1:B:78:LEU:HD12	1:B:81:MET:SD	2.61	0.40
1:B:568:LEU:HD12	1:B:602:VAL:HG13	2.03	0.40
1:B:663:TYR:CE1	1:B:745:SER:HB3	2.55	0.40
1:B:3110:LEU:HD23	1:B:3183:VAL:HG12	2.02	0.40
1:B:3300:ALA:HB3	1:B:3301:PRO:HD3	2.01	0.40
1:E:110:ARG:HD3	1:E:115:ARG:HE	1.86	0.40
1:E:2325:PRO:HA	1:E:2425:PHE:CD2	2.56	0.40
1:E:2458:ARG:HG3	1:E:2510:TYR:CE1	2.57	0.40
1:E:2645:THR:HG23	1:E:2702:CYS:HA	2.03	0.40
1:E:2747:ILE:HG21	1:E:2814:LYS:HE3	2.03	0.40
1:E:3046:LEU:HA	1:E:3049:LEU:HG	2.03	0.40
1:E:3292:PRO:HA	1:E:3293:PRO:HD3	1.91	0.40
1:E:4998:LYS:HE3	1:E:4998:LYS:HB2	1.72	0.40
1:G:3264:THR:O	1:G:3267:PRO:HD3	2.21	0.40
1:G:4553:ASN:O	1:G:4557:ARG:HG3	2.21	0.40
1:G:4574:ASN:ND2	1:G:4810:ALA:HA	2.29	0.40
1:G:4687:TYR:OH	1:G:4699:GLY:O	2.36	0.40
1:J:110:ARG:HD3	1:J:115:ARG:HE	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:664:PHE:CE1	1:J:746:CYS:HB2	2.57	0.40
1:J:2598:ALA:O	1:J:2602:VAL:HG23	2.21	0.40
1:J:3046:LEU:HA	1:J:3049:LEU:HG	2.03	0.40
1:J:3264:THR:O	1:J:3267:PRO:HD3	2.21	0.40
1:J:4574:ASN:ND2	1:J:4810:ALA:HA	2.29	0.40
1:B:138:GLN:NE2	1:B:140:ASP:O	2.54	0.40
1:B:316:PHE:HD2	1:B:339:ILE:HG21	1.87	0.40
1:B:882:TRP:CD1	1:B:886:ARG:CZ	3.03	0.40
1:B:1699:GLU:HG3	1:B:1810:LYS:HE3	2.02	0.40
1:B:4652:LEU:O	1:B:4656:LEU:HG	2.21	0.40
1:B:4679:ARG:HH21	1:B:5017:ARG:NH1	2.18	0.40
1:E:138:GLN:NE2	1:E:140:ASP:O	2.54	0.40
1:E:1115:LEU:HD23	1:E:1123:VAL:HG21	2.03	0.40
1:E:2911:LEU:HD13	1:E:2915:GLU:HG3	2.04	0.40
1:E:4046:ASP:HA	1:E:4049:VAL:HG22	2.04	0.40
1:G:192:ASP:N	1:G:192:ASP:OD1	2.55	0.40
1:G:1053:ILE:H	1:G:1053:ILE:HG12	1.66	0.40
1:G:1945:TYR:O	1:G:1949:GLN:HG2	2.22	0.40
1:G:3016:TYR:CE2	1:G:3030:HIS:HB3	2.56	0.40
1:G:3398:PHE:HD1	1:G:3451:PHE:CD2	2.40	0.40
1:G:4652:LEU:O	1:G:4656:LEU:HG	2.21	0.40
1:J:73:LEU:O	1:J:106:ALA:N	2.46	0.40
1:J:138:GLN:NE2	1:J:140:ASP:O	2.54	0.40
1:J:553:ARG:NH1	1:J:555:GLU:OE2	2.48	0.40
1:J:1870:VAL:HG11	1:J:2097:LEU:HD22	2.02	0.40
1:J:2012:PHE:CZ	1:J:2031:LEU:HD23	2.57	0.40
1:J:2867:LEU:HD12	1:J:2867:LEU:HA	1.82	0.40
1:J:2911:LEU:HD13	1:J:2915:GLU:HG3	2.04	0.40
1:J:3016:TYR:CE2	1:J:3030:HIS:HB3	2.56	0.40
1:J:4046:ASP:HA	1:J:4049:VAL:HG22	2.04	0.40
2:H:26:TYR:HA	2:H:100:ASP:O	2.20	0.40
2:I:39:SER:OG	2:I:44:LYS:O	2.40	0.40
3:C:30:SER:HB3	3:C:99:ARG:CB	2.49	0.40
3:M:105:ASN:ND2	3:M:107:TRP:H	2.20	0.40
1:B:246:TYR:CD1	1:B:373:LYS:HB2	2.57	0.40
1:B:2633:LEU:HB3	1:B:2689:LYS:HZ1	1.86	0.40
1:B:2965:ARG:HE	1:B:2965:ARG:HB3	1.57	0.40
1:B:3016:TYR:CE2	1:B:3030:HIS:HB3	2.56	0.40
1:B:3568:SER:HA	1:B:3571:TRP:CD1	2.56	0.40
1:B:3639:THR:N	1:B:3640:PRO:HD2	2.35	0.40
1:B:3970:GLN:NE2	1:B:5004:THR:HA	2.32	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:192:ASP:OD1	1:E:192:ASP:N	2.55	0.40
1:E:418:LEU:HD13	1:E:493:ARG:HB3	2.04	0.40
1:E:1738:LEU:HD12	1:E:1738:LEU:HA	1.80	0.40
1:E:2951:ILE:HG13	1:E:2957:PHE:HB3	2.04	0.40
1:E:3154:ASP:N	1:E:3154:ASP:OD1	2.55	0.40
1:E:3264:THR:O	1:E:3267:PRO:HD3	2.21	0.40
1:E:3327:LEU:HD22	1:E:3368:ARG:NH1	2.36	0.40
1:E:3558:HIS:CD2	1:E:3559:LEU:HG	2.57	0.40
1:E:3943:ILE:HD11	1:E:4002:LYS:HE2	2.03	0.40
1:E:4966:ASP:N	1:E:4966:ASP:OD1	2.53	0.40
1:G:2485:LEU:HD23	1:G:2485:LEU:HA	1.95	0.40
1:G:2536:LEU:HA	1:G:2541:PHE:HB3	2.03	0.40
1:G:2598:ALA:O	1:G:2602:VAL:HG23	2.21	0.40
1:G:2973:PHE:CD1	1:G:2995:ILE:HG12	2.57	0.40
1:G:3010:PHE:O	1:G:3014:CYS:HB2	2.21	0.40
1:G:3327:LEU:HD22	1:G:3368:ARG:NH1	2.36	0.40
1:G:3965:LEU:HA	1:G:3968:TYR:CD2	2.57	0.40
1:G:4725:LEU:HA	1:G:4737:ILE:HG21	2.02	0.40
1:J:144:GLU:HB2	1:J:174:VAL:HG23	2.04	0.40
1:J:2661:TRP:CZ3	1:J:2664:PHE:HD2	2.38	0.40
1:J:3558:HIS:CD2	1:J:3559:LEU:HG	2.57	0.40
1:J:4114:CYS:O	1:J:4131:ARG:NH2	2.55	0.40
2:H:5:GLU:HA	2:H:5:GLU:OE1	2.22	0.40
2:H:39:SER:OG	2:H:44:LYS:O	2.40	0.40
2:I:5:GLU:OE1	2:I:5:GLU:HA	2.22	0.40
1:B:172:VAL:HA	1:B:178:ARG:O	2.21	0.40
1:B:664:PHE:CE1	1:B:746:CYS:HB2	2.57	0.40
1:B:906:CYS:O	1:B:908:VAL:HG23	2.21	0.40
1:B:2247:GLN:HG3	1:B:2279:SER:HA	2.04	0.40
1:B:3453:ARG:NH1	1:B:3453:ARG:HA	2.37	0.40
1:B:3965:LEU:HA	1:B:3968:TYR:CD2	2.57	0.40
1:B:4077:PHE:O	1:B:4081:VAL:HG23	2.22	0.40
1:B:4966:ASP:OD1	1:B:4966:ASP:N	2.53	0.40
1:E:1733:GLU:O	1:E:1772:ARG:NH1	2.52	0.40
1:E:2247:GLN:HG3	1:E:2279:SER:HA	2.04	0.40
1:E:2598:ALA:O	1:E:2602:VAL:HG23	2.21	0.40
1:E:2968:ASP:OD1	1:E:2968:ASP:N	2.54	0.40
1:E:3062:PRO:HA	1:E:3065:VAL:HG22	2.02	0.40
1:G:2254:LEU:O	1:G:2258:LEU:HG	2.22	0.40
1:G:2286:LEU:HD23	1:G:2286:LEU:HA	1.93	0.40
1:G:2968:ASP:N	1:G:2968:ASP:OD1	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3046:LEU:HA	1:G:3049:LEU:HG	2.03	0.40
1:G:3530:GLN:OE1	1:G:3530:GLN:N	2.52	0.40
1:G:3639:THR:N	1:G:3640:PRO:HD2	2.35	0.40
1:G:4209:GLN:H	1:G:4209:GLN:HG3	1.65	0.40
1:J:192:ASP:N	1:J:192:ASP:OD1	2.55	0.40
1:J:581:ASN:OD1	1:J:581:ASN:N	2.53	0.40
1:J:623:GLU:HG2	2:I:88:PRO:HB3	2.02	0.40
1:J:987:ARG:HG3	1:J:987:ARG:H	1.75	0.40
1:J:2247:GLN:HG3	1:J:2279:SER:HA	2.04	0.40
1:J:2263:ILE:O	1:J:2330:ARG:NH1	2.51	0.40
1:J:3398:PHE:HD1	1:J:3451:PHE:CD2	2.40	0.40
1:J:4998:LYS:HB2	1:J:4998:LYS:HE3	1.72	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

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

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	4247/5037 (84%)	4148 (98%)	96 (2%)	3 (0%)	48	80
1	E	4247/5037 (84%)	4149 (98%)	96 (2%)	2 (0%)	100	100
1	G	4247/5037 (84%)	4148 (98%)	97 (2%)	2 (0%)	100	100
1	J	4247/5037 (84%)	4148 (98%)	97 (2%)	2 (0%)	100	100
2	A	105/107 (98%)	102 (97%)	3 (3%)	0	100	100
2	D	105/107 (98%)	102 (97%)	3 (3%)	0	100	100
2	H	105/107 (98%)	102 (97%)	3 (3%)	0	100	100
2	I	105/107 (98%)	102 (97%)	3 (3%)	0	100	100
3	C	124/137 (90%)	118 (95%)	6 (5%)	0	100	100
3	F	124/137 (90%)	118 (95%)	6 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	K	124/137 (90%)	118 (95%)	6 (5%)	0	100	100
3	M	124/137 (90%)	117 (94%)	7 (6%)	0	100	100
All	All	17904/21124 (85%)	17472 (98%)	423 (2%)	9 (0%)	50	80

All (9) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	4117	ALA
1	E	4117	ALA
1	G	4117	ALA
1	J	4117	ALA
1	B	375	LYS
1	B	3972	PRO
1	E	3972	PRO
1	G	3972	PRO
1	J	3972	PRO

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

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	B	3658/4276 (86%)	3584 (98%)	74 (2%)	50	75
1	E	3658/4276 (86%)	3584 (98%)	74 (2%)	50	75
1	G	3658/4276 (86%)	3584 (98%)	74 (2%)	50	75
1	J	3658/4276 (86%)	3584 (98%)	74 (2%)	50	75
2	A	88/88 (100%)	87 (99%)	1 (1%)	70	86
2	D	88/88 (100%)	87 (99%)	1 (1%)	70	86
2	H	88/88 (100%)	87 (99%)	1 (1%)	70	86
2	I	88/88 (100%)	87 (99%)	1 (1%)	70	86
3	C	104/114 (91%)	99 (95%)	5 (5%)	21	55
3	F	104/114 (91%)	99 (95%)	5 (5%)	21	55

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	K	104/114 (91%)	99 (95%)	5 (5%)	21	55
3	M	104/114 (91%)	99 (95%)	5 (5%)	21	55
All	All	15400/17912 (86%)	15080 (98%)	320 (2%)	49	74

All (320) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	150	MET
1	B	196	MET
1	B	223	PHE
1	B	230	CYS
1	B	308	HIS
1	B	310	LYS
1	B	341	TYR
1	B	379	HIS
1	B	389	PHE
1	B	436	LEU
1	B	725	HIS
1	B	871	ARG
1	B	914	PRO
1	B	918	ARG
1	B	960	MET
1	B	961	MET
1	B	1025	ARG
1	B	1065	ASN
1	B	1112	ASP
1	B	1132	TRP
1	B	1143	TRP
1	B	1157	GLU
1	B	1170	MET
1	B	1421	ARG
1	B	1435	TYR
1	B	2203	MET
1	B	2256	TYR
1	B	2330	ARG
1	B	2423	MET
1	B	2489	LYS
1	B	2516	ASP
1	B	2569	PHE
1	B	2578	MET
1	B	2612	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	2618	MET
1	B	2647	HIS
1	B	2670	GLU
1	B	2700	MET
1	B	2738	ARG
1	B	2751	LEU
1	B	2806	ARG
1	B	2827	ARG
1	B	2914	LYS
1	B	2955	PHE
1	B	2965	ARG
1	B	2973	PHE
1	B	3033	ASN
1	B	3038	MET
1	B	3069	HIS
1	B	3078	ARG
1	B	3167	ARG
1	B	3185	LYS
1	B	3248	ARG
1	B	3280	TYR
1	B	3343	GLN
1	B	3406	TYR
1	B	3422	HIS
1	B	3462	ASN
1	B	3516	LYS
1	B	3604	TYR
1	B	3642	TYR
1	B	3758	MET
1	B	3787	LYS
1	B	3899	PHE
1	B	3933	PHE
1	B	3937	TYR
1	B	3940	LYS
1	B	4001	MET
1	B	4042	ARG
1	B	4103	PHE
1	B	4159	ARG
1	B	4553	ASN
1	B	4580	TYR
1	B	4858	PHE
1	E	150	MET
1	E	196	MET

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	223	PHE
1	E	230	CYS
1	E	308	HIS
1	E	310	LYS
1	E	341	TYR
1	E	379	HIS
1	E	389	PHE
1	E	436	LEU
1	E	725	HIS
1	E	871	ARG
1	E	914	PRO
1	E	918	ARG
1	E	960	MET
1	E	961	MET
1	E	1025	ARG
1	E	1065	ASN
1	E	1112	ASP
1	E	1132	TRP
1	E	1143	TRP
1	E	1157	GLU
1	E	1170	MET
1	E	1421	ARG
1	E	1435	TYR
1	E	2203	MET
1	E	2256	TYR
1	E	2330	ARG
1	E	2423	MET
1	E	2489	LYS
1	E	2516	ASP
1	E	2569	PHE
1	E	2578	MET
1	E	2612	ARG
1	E	2618	MET
1	E	2647	HIS
1	E	2670	GLU
1	E	2700	MET
1	E	2738	ARG
1	E	2751	LEU
1	E	2806	ARG
1	E	2827	ARG
1	E	2914	LYS
1	E	2955	PHE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	2965	ARG
1	E	2973	PHE
1	E	3033	ASN
1	E	3038	MET
1	E	3069	HIS
1	E	3078	ARG
1	E	3167	ARG
1	E	3185	LYS
1	E	3248	ARG
1	E	3280	TYR
1	E	3343	GLN
1	E	3406	TYR
1	E	3422	HIS
1	E	3462	ASN
1	E	3516	LYS
1	E	3604	TYR
1	E	3642	TYR
1	E	3758	MET
1	E	3787	LYS
1	E	3899	PHE
1	E	3933	PHE
1	E	3937	TYR
1	E	3940	LYS
1	E	4001	MET
1	E	4042	ARG
1	E	4103	PHE
1	E	4159	ARG
1	E	4553	ASN
1	E	4580	TYR
1	E	4858	PHE
1	G	150	MET
1	G	196	MET
1	G	223	PHE
1	G	230	CYS
1	G	308	HIS
1	G	310	LYS
1	G	341	TYR
1	G	379	HIS
1	G	389	PHE
1	G	436	LEU
1	G	725	HIS
1	G	871	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	G	914	PRO
1	G	918	ARG
1	G	960	MET
1	G	961	MET
1	G	1025	ARG
1	G	1065	ASN
1	G	1112	ASP
1	G	1132	TRP
1	G	1143	TRP
1	G	1157	GLU
1	G	1170	MET
1	G	1421	ARG
1	G	1435	TYR
1	G	2203	MET
1	G	2256	TYR
1	G	2330	ARG
1	G	2423	MET
1	G	2489	LYS
1	G	2516	ASP
1	G	2569	PHE
1	G	2578	MET
1	G	2612	ARG
1	G	2618	MET
1	G	2647	HIS
1	G	2670	GLU
1	G	2700	MET
1	G	2738	ARG
1	G	2751	LEU
1	G	2806	ARG
1	G	2827	ARG
1	G	2914	LYS
1	G	2955	PHE
1	G	2965	ARG
1	G	2973	PHE
1	G	3033	ASN
1	G	3038	MET
1	G	3069	HIS
1	G	3078	ARG
1	G	3167	ARG
1	G	3185	LYS
1	G	3248	ARG
1	G	3280	TYR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	G	3343	GLN
1	G	3406	TYR
1	G	3422	HIS
1	G	3462	ASN
1	G	3516	LYS
1	G	3604	TYR
1	G	3642	TYR
1	G	3758	MET
1	G	3787	LYS
1	G	3899	PHE
1	G	3933	PHE
1	G	3937	TYR
1	G	3940	LYS
1	G	4001	MET
1	G	4042	ARG
1	G	4103	PHE
1	G	4159	ARG
1	G	4553	ASN
1	G	4580	TYR
1	G	4858	PHE
1	J	150	MET
1	J	196	MET
1	J	223	PHE
1	J	230	CYS
1	J	308	HIS
1	J	310	LYS
1	J	341	TYR
1	J	379	HIS
1	J	389	PHE
1	J	436	LEU
1	J	725	HIS
1	J	871	ARG
1	J	914	PRO
1	J	918	ARG
1	J	960	MET
1	J	961	MET
1	J	1025	ARG
1	J	1065	ASN
1	J	1112	ASP
1	J	1132	TRP
1	J	1143	TRP
1	J	1157	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	J	1170	MET
1	J	1421	ARG
1	J	1435	TYR
1	J	2203	MET
1	J	2256	TYR
1	J	2330	ARG
1	J	2423	MET
1	J	2489	LYS
1	J	2516	ASP
1	J	2569	PHE
1	J	2578	MET
1	J	2612	ARG
1	J	2618	MET
1	J	2647	HIS
1	J	2670	GLU
1	J	2700	MET
1	J	2738	ARG
1	J	2751	LEU
1	J	2806	ARG
1	J	2827	ARG
1	J	2914	LYS
1	J	2955	PHE
1	J	2965	ARG
1	J	2973	PHE
1	J	3033	ASN
1	J	3038	MET
1	J	3069	HIS
1	J	3078	ARG
1	J	3167	ARG
1	J	3185	LYS
1	J	3248	ARG
1	J	3280	TYR
1	J	3343	GLN
1	J	3406	TYR
1	J	3422	HIS
1	J	3462	ASN
1	J	3516	LYS
1	J	3604	TYR
1	J	3642	TYR
1	J	3758	MET
1	J	3787	LYS
1	J	3899	PHE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	J	3933	PHE
1	J	3937	TYR
1	J	3940	LYS
1	J	4001	MET
1	J	4042	ARG
1	J	4103	PHE
1	J	4159	ARG
1	J	4553	ASN
1	J	4580	TYR
1	J	4858	PHE
2	A	66	MET
2	D	66	MET
2	H	66	MET
2	I	66	MET
3	C	3	GLN
3	C	83	ASN
3	C	89	ASP
3	C	111	ASN
3	C	114	TYR
3	F	3	GLN
3	F	83	ASN
3	F	89	ASP
3	F	111	ASN
3	F	114	TYR
3	K	3	GLN
3	K	83	ASN
3	K	89	ASP
3	K	111	ASN
3	K	114	TYR
3	M	3	GLN
3	M	83	ASN
3	M	89	ASP
3	M	111	ASN
3	M	114	TYR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (57) such sidechains are listed below:

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	877	ASN
1	B	1973	GLN
1	B	2005	GLN
1	B	2420	HIS

*Continued on next page...*

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	3069	HIS
1	B	3146	HIS
1	B	3150	HIS
1	B	3450	ASN
1	B	3462	ASN
1	B	3771	HIS
1	B	3850	GLN
1	B	3895	HIS
1	B	3970	GLN
1	B	4574	ASN
1	E	877	ASN
1	E	1299	GLN
1	E	1973	GLN
1	E	2005	GLN
1	E	3069	HIS
1	E	3146	HIS
1	E	3150	HIS
1	E	3450	ASN
1	E	3462	ASN
1	E	3771	HIS
1	E	3850	GLN
1	E	3895	HIS
1	E	3970	GLN
1	E	4574	ASN
1	G	877	ASN
1	G	1299	GLN
1	G	1973	GLN
1	G	2005	GLN
1	G	2420	HIS
1	G	3069	HIS
1	G	3146	HIS
1	G	3150	HIS
1	G	3450	ASN
1	G	3462	ASN
1	G	3771	HIS
1	G	3850	GLN
1	G	3895	HIS
1	G	3970	GLN
1	G	4574	ASN
1	J	877	ASN
1	J	1299	GLN
1	J	1973	GLN

*Continued on next page...*

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Mol	Chain	Res	Type
1	J	2005	GLN
1	J	3069	HIS
1	J	3146	HIS
1	J	3150	HIS
1	J	3450	ASN
1	J	3771	HIS
1	J	3850	GLN
1	J	3895	HIS
1	J	3970	GLN
1	J	4574	ASN
2	D	31	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 4 ligands modelled in this entry, 4 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

### 5.7 Other polymers [i](#)

There are no such residues in this entry.



## 5.8 Polymer linkage issues

There are no chain breaks in this entry.

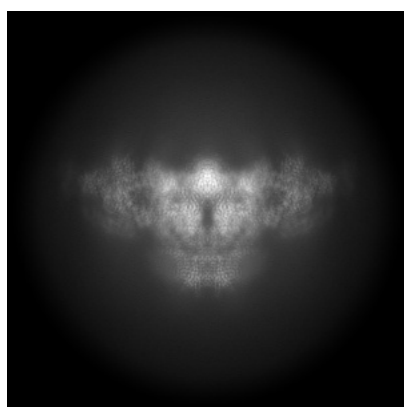
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-19466. These allow visual inspection of the internal detail of the map and identification of artifacts.

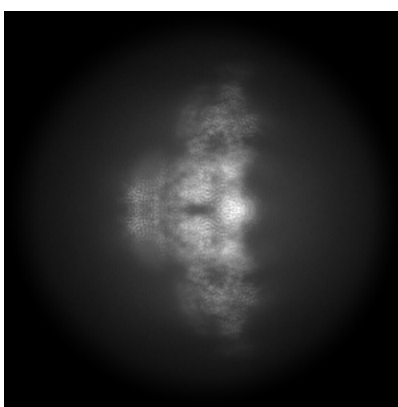
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

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

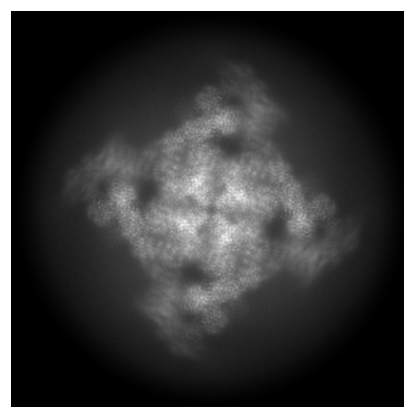
#### 6.1.1 Primary map



X



Y

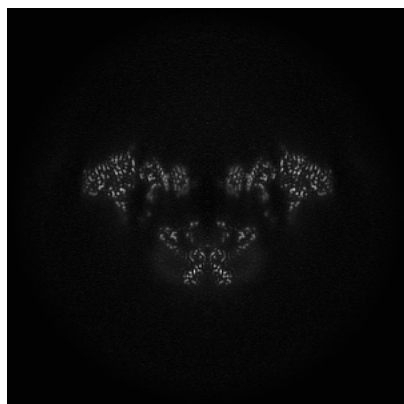


Z

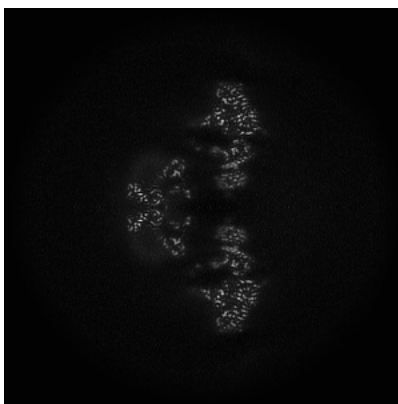
The images above show the map projected in three orthogonal directions.

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

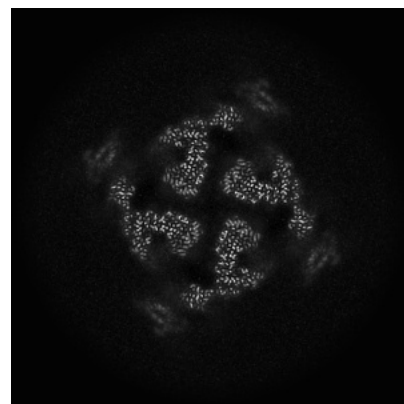
#### 6.2.1 Primary map



X Index: 168



Y Index: 168

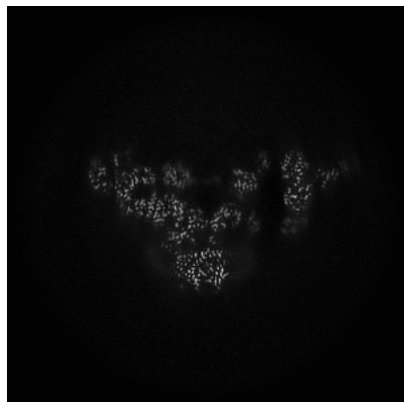


Z Index: 168

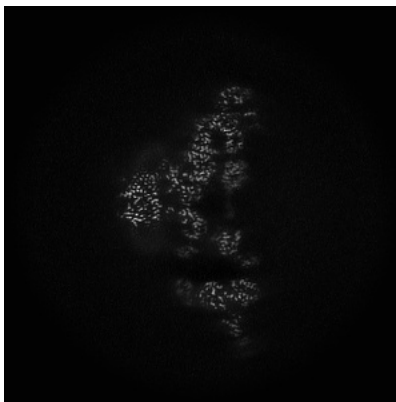
The images above show central slices of the map in three orthogonal directions.

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

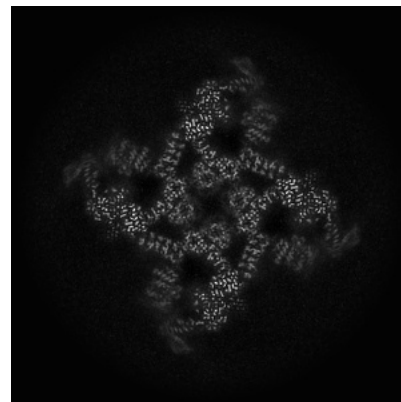
### 6.3.1 Primary map



X Index: 178



Y Index: 178

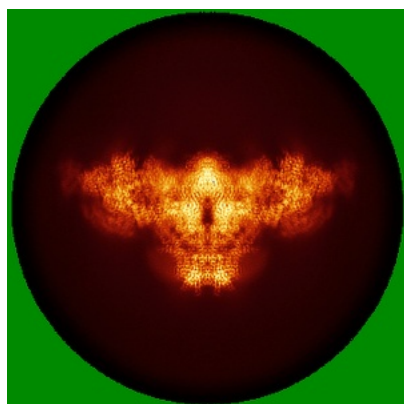


Z Index: 187

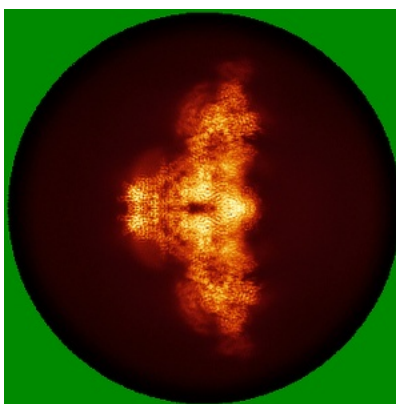
The images above show the largest variance slices of the map in three orthogonal directions.

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

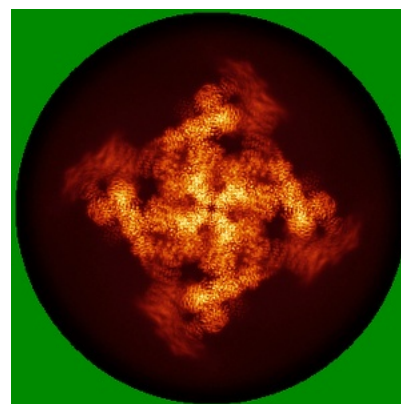
### 6.4.1 Primary map



X



Y

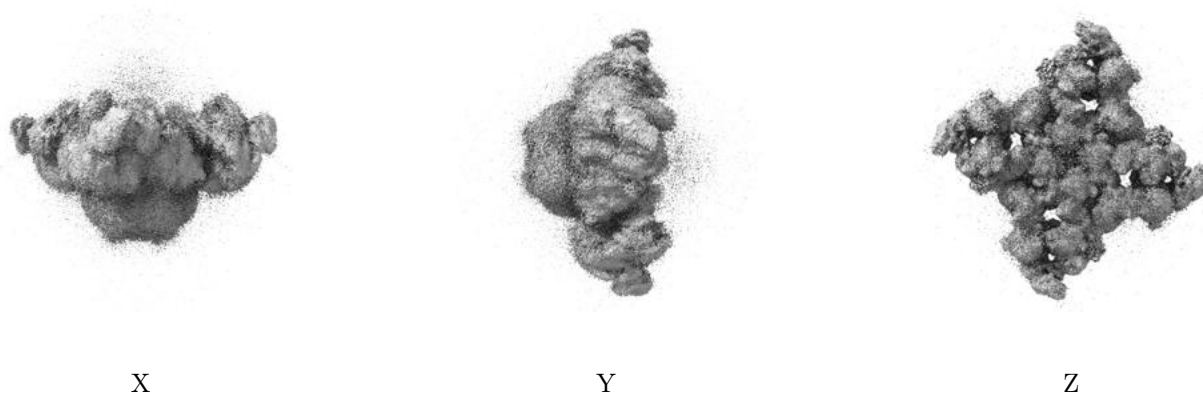


Z

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

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

### 6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.35. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

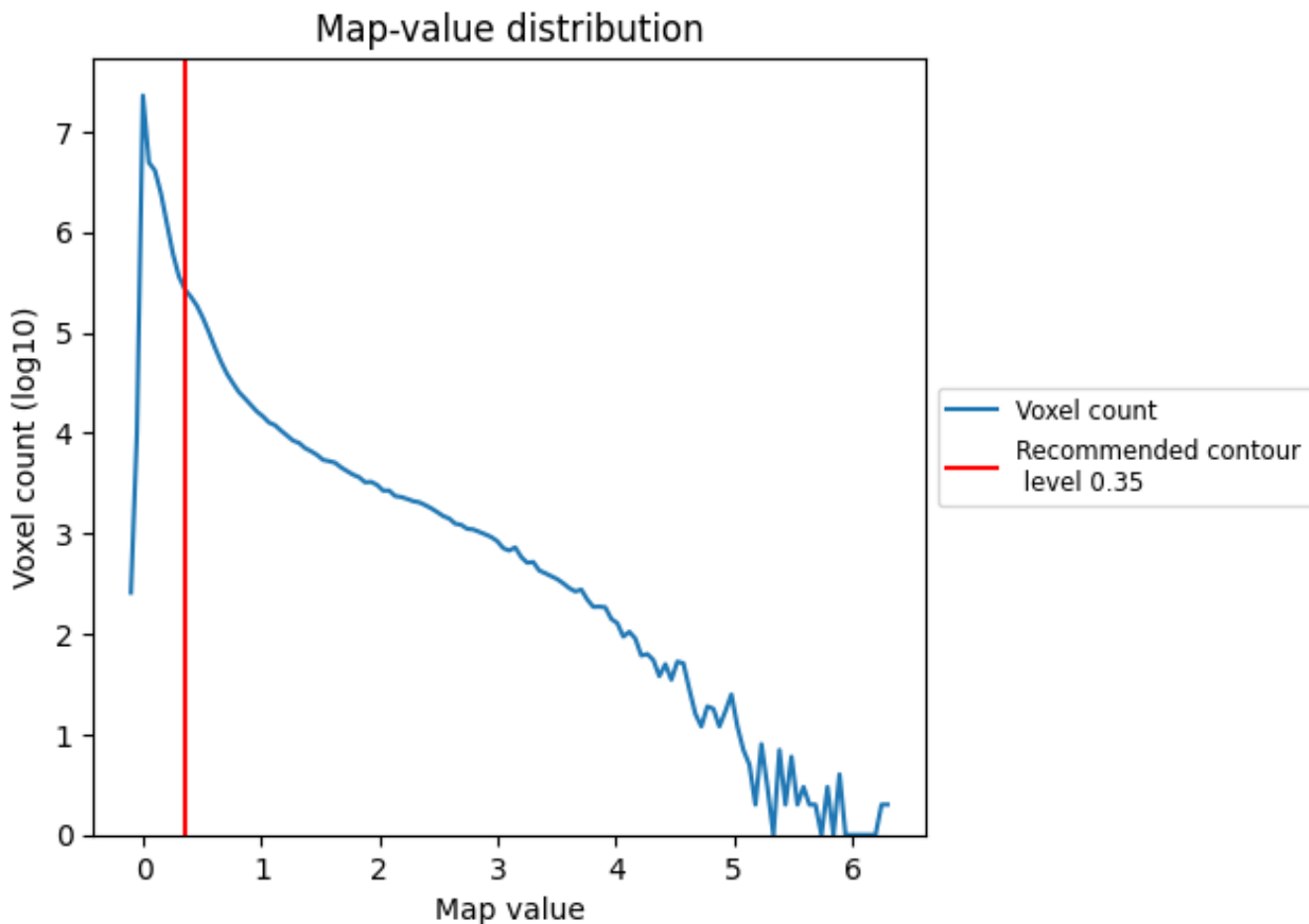
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

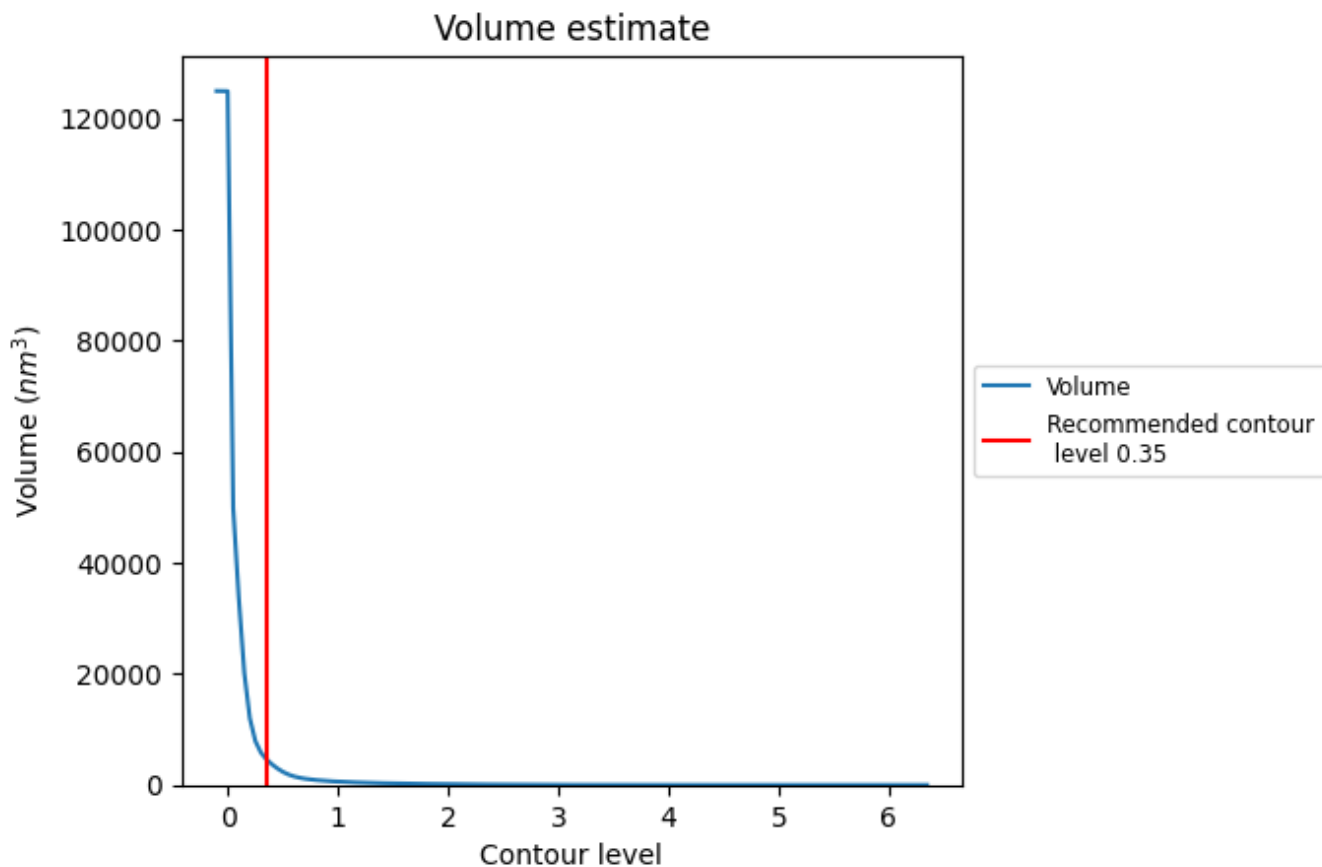
This section contains the results of statistical analysis of the map.

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



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

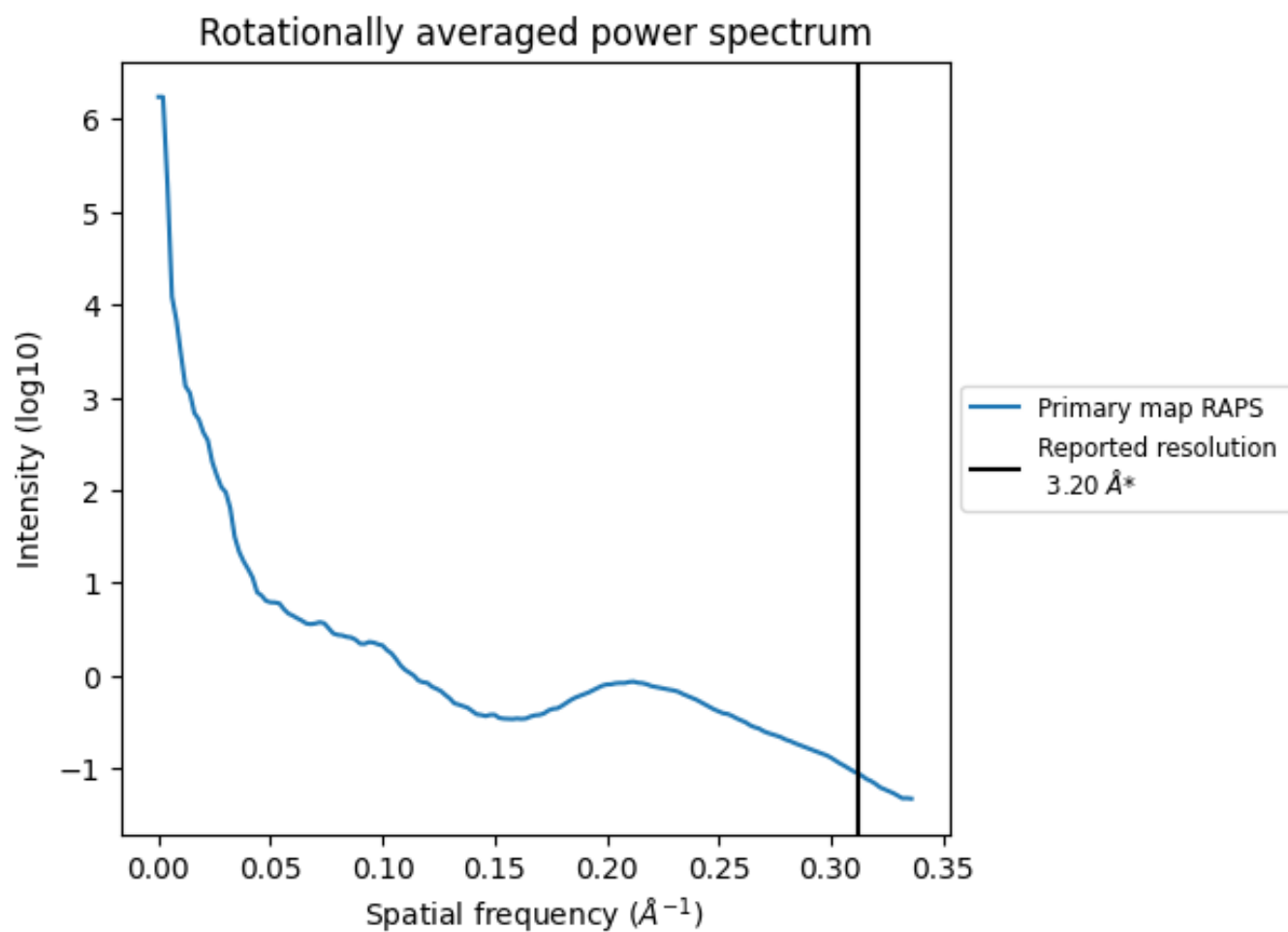
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 4570 nm<sup>3</sup>; this corresponds to an approximate mass of 4129 kDa.

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

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

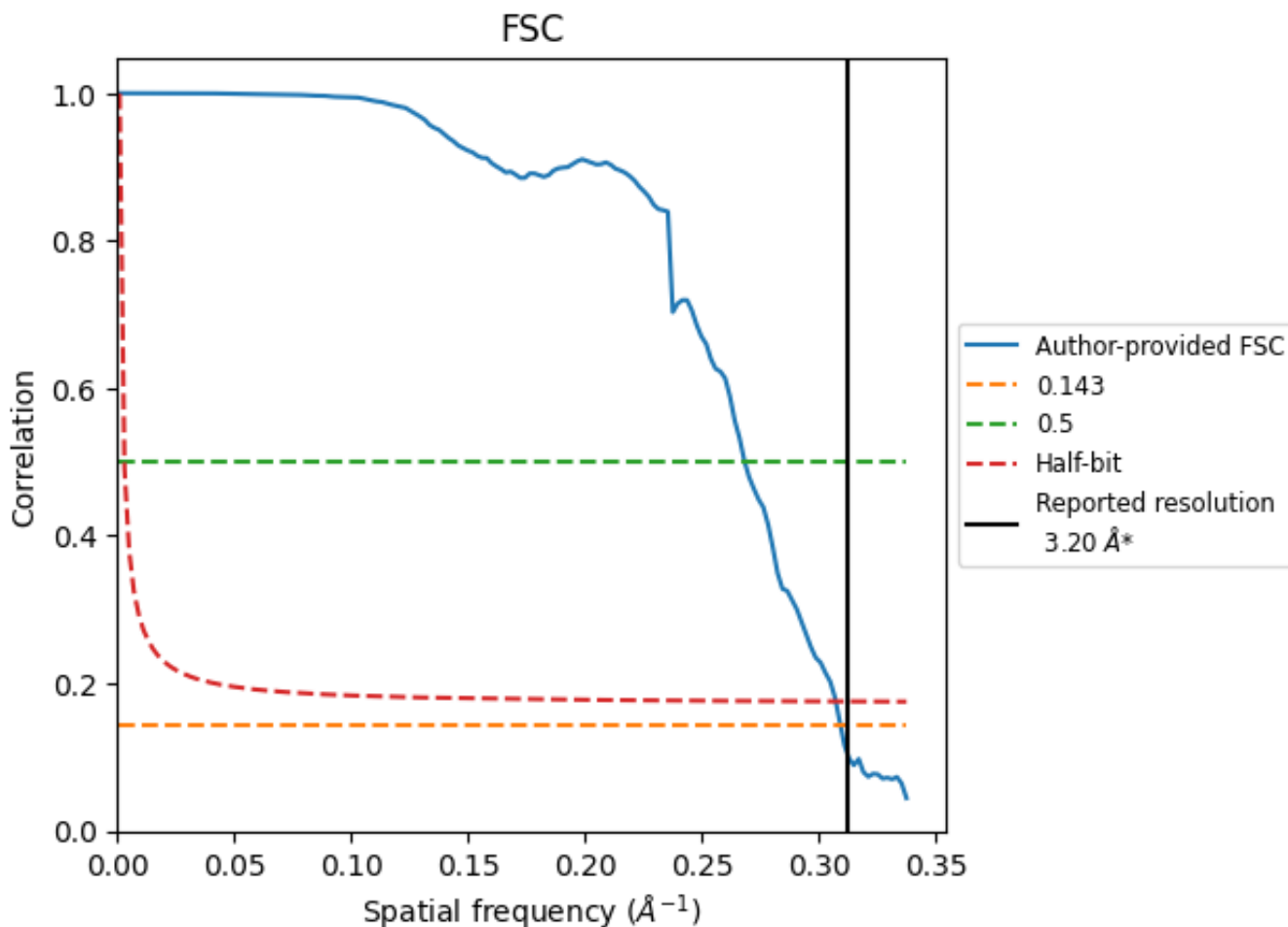


\*Reported resolution corresponds to spatial frequency of 0.312 Å<sup>-1</sup>

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

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

### 8.1 FSC [i](#)



\*Reported resolution corresponds to spatial frequency of 0.312 Å<sup>-1</sup>



## 8.2 Resolution estimates [i](#)

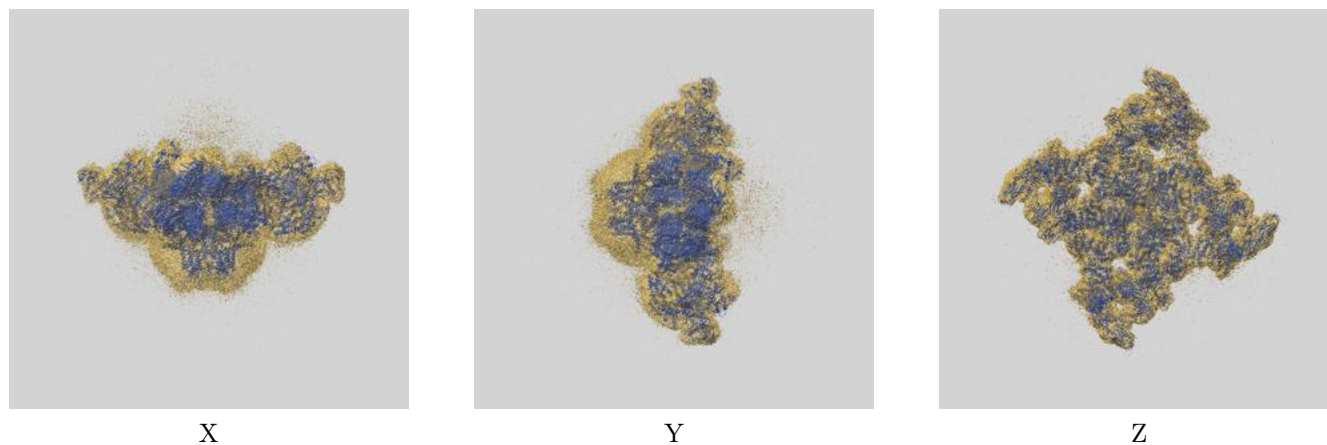
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.20	-	-
Author-provided FSC curve	3.23	3.73	3.26
Unmasked-calculated*	-	-	-

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

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

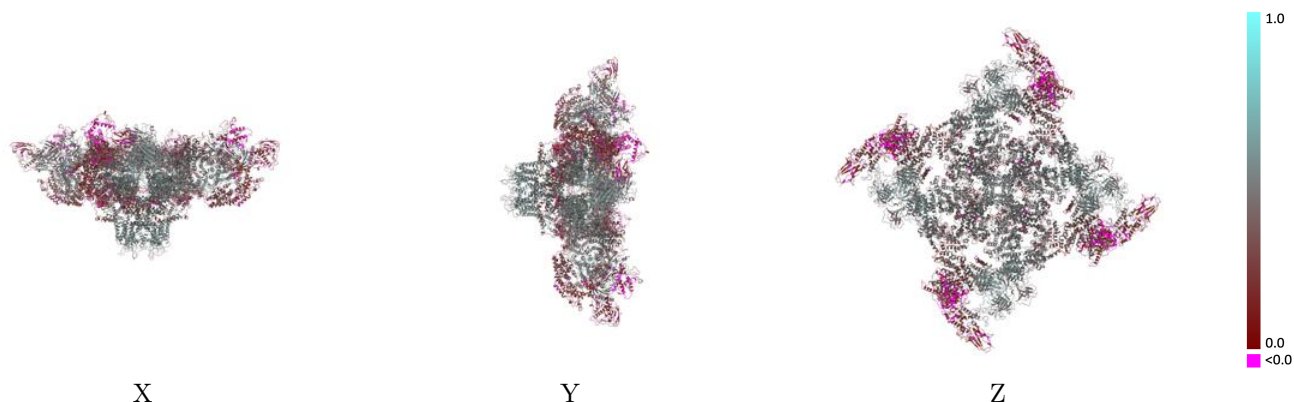
This section contains information regarding the fit between EMDB map EMD-19466 and PDB model 8RRV. Per-residue inclusion information can be found in section 3 on page 6.

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



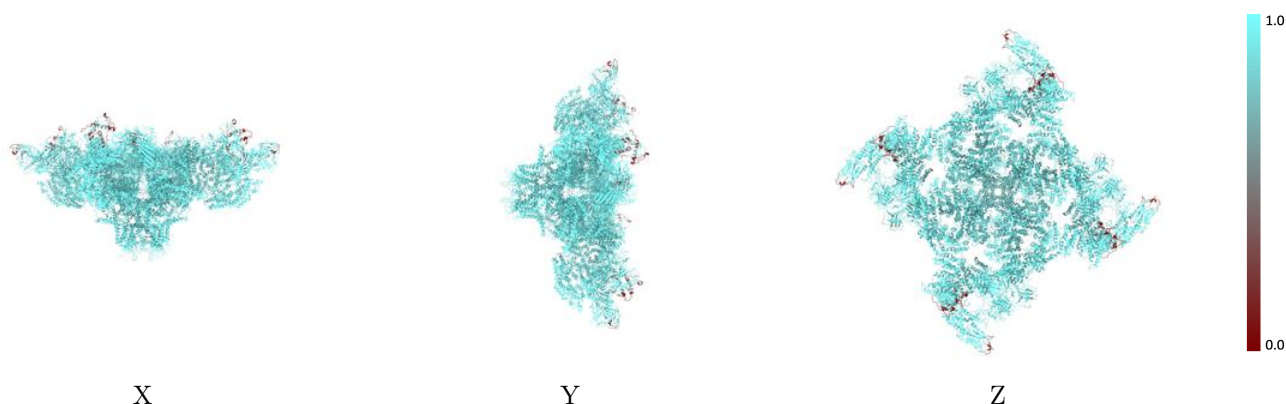
The images above show the 3D surface view of the map at the recommended contour level 0.35 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



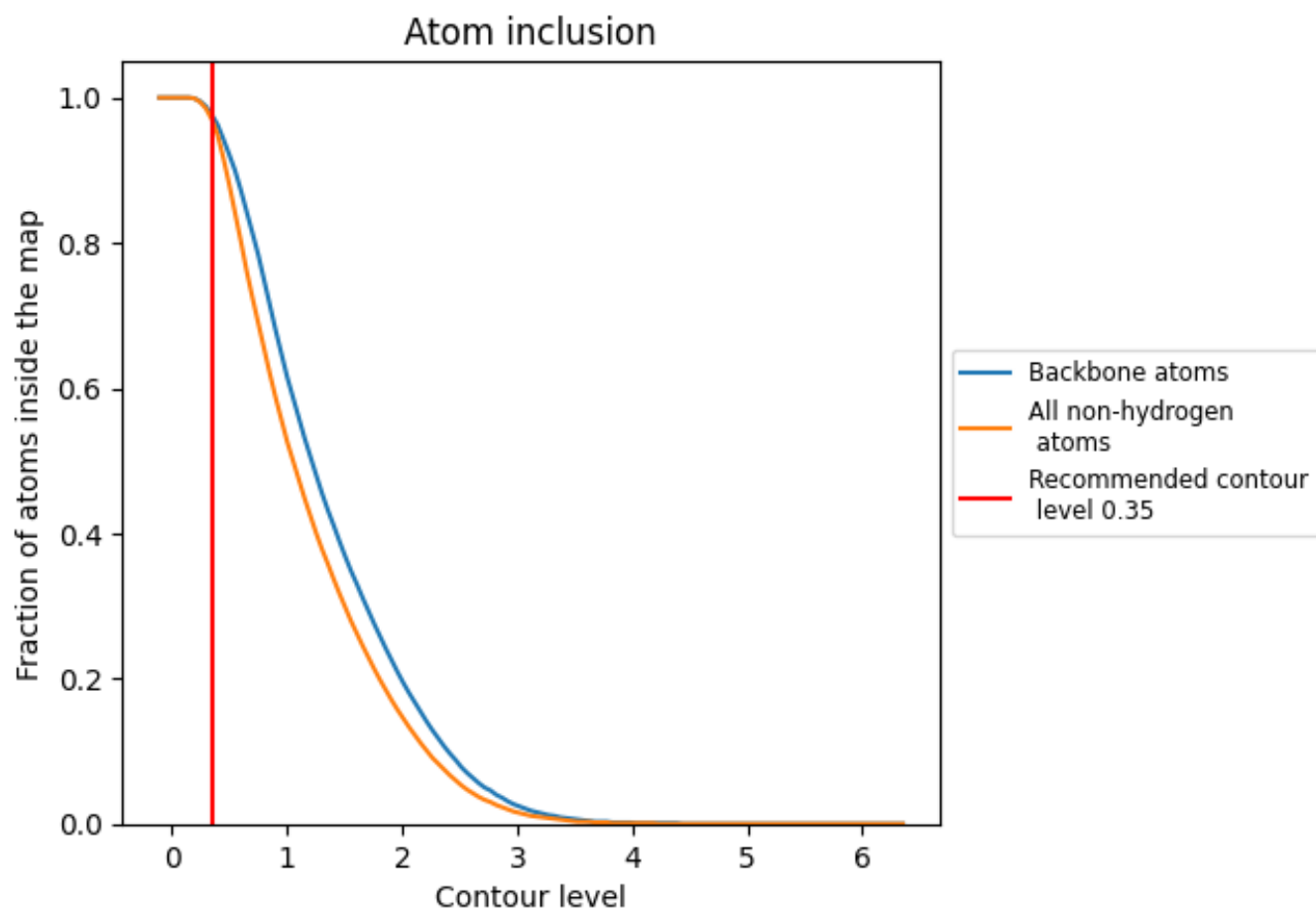
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.35).



























## 9.4 Atom inclusion [i](#)



At the recommended contour level, 98% of all backbone atoms, 97% 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 (0.35) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9700	 0.3800
A	 0.8810	 0.4120
B	 0.9770	 0.3850
C	 0.7720	 0.1480
D	 0.8780	 0.4170
E	 0.9780	 0.3850
F	 0.7760	 0.1480
G	 0.9770	 0.3850
H	 0.8860	 0.4150
I	 0.8810	 0.4170
J	 0.9770	 0.3860
K	 0.7770	 0.1480
M	 0.7720	 0.1500

