



# Full wwPDB EM Validation Report ⓘ

Nov 7, 2022 – 10:44 AM JST

PDB ID : 5GL1  
EMDB ID : EMD-9521  
Title : Structure of RyR1 in an open state  
Authors : Bai, X.C.; Yan, Z.; Wu, J.P.; Yan, N.  
Deposited on : 2016-07-07  
Resolution : 5.70 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.dev43  
MolProbity : 4.02b-467  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.9  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.31.2

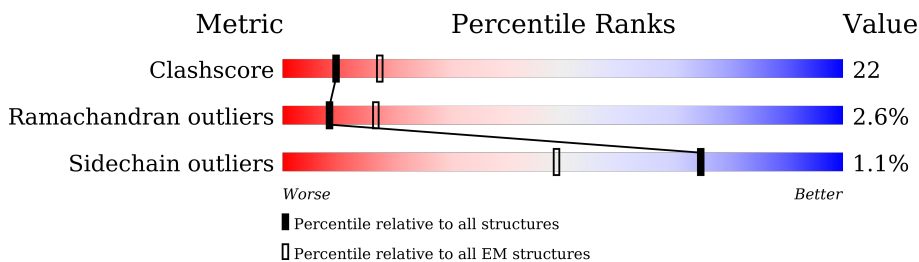
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 5.70 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	A	5037	<div> <div>26%</div> <div>41%</div> <div>28%</div> <div>•</div> <div>28%</div> </div>
1	C	5037	<div> <div>26%</div> <div>41%</div> <div>28%</div> <div>•</div> <div>28%</div> </div>
1	E	5037	<div> <div>26%</div> <div>41%</div> <div>28%</div> <div>•</div> <div>28%</div> </div>
1	G	5037	<div> <div>26%</div> <div>41%</div> <div>29%</div> <div>•</div> <div>28%</div> </div>
2	B	108	<div> <div>30%</div> <div>53%</div> <div>44%</div> <div>••</div> </div>
2	D	108	<div> <div>30%</div> <div>56%</div> <div>40%</div> <div>••</div> </div>
2	F	108	<div> <div>30%</div> <div>56%</div> <div>40%</div> <div>••</div> </div>
2	H	108	<div> <div>30%</div> <div>52%</div> <div>45%</div> <div>••</div> </div>

## 2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 110704 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	3645	Total	C	N	O	S	0	0
			26843	17063	4667	4956	157		
1	C	3645	Total	C	N	O	S	0	0
			26843	17063	4667	4956	157		
1	E	3645	Total	C	N	O	S	0	0
			26843	17063	4667	4956	157		
1	G	3645	Total	C	N	O	S	0	0
			26843	17063	4667	4956	157		

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

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

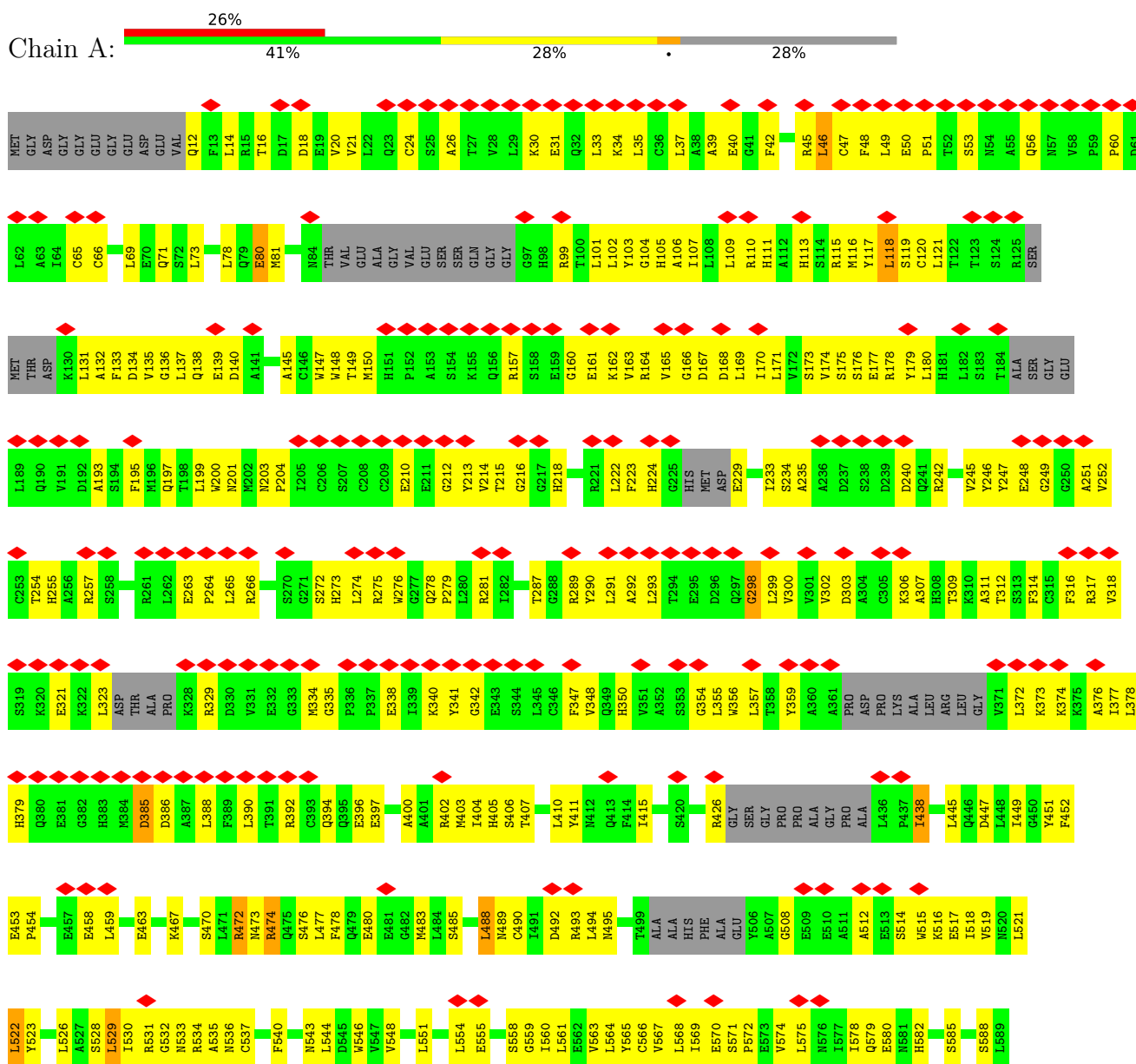
- Molecule 3 is ZINC ION (three-letter code: ZN) (formula: Zn).

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

### 3 Residue-property plots

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

#### • Molecule 1: Ryanodine receptor 1









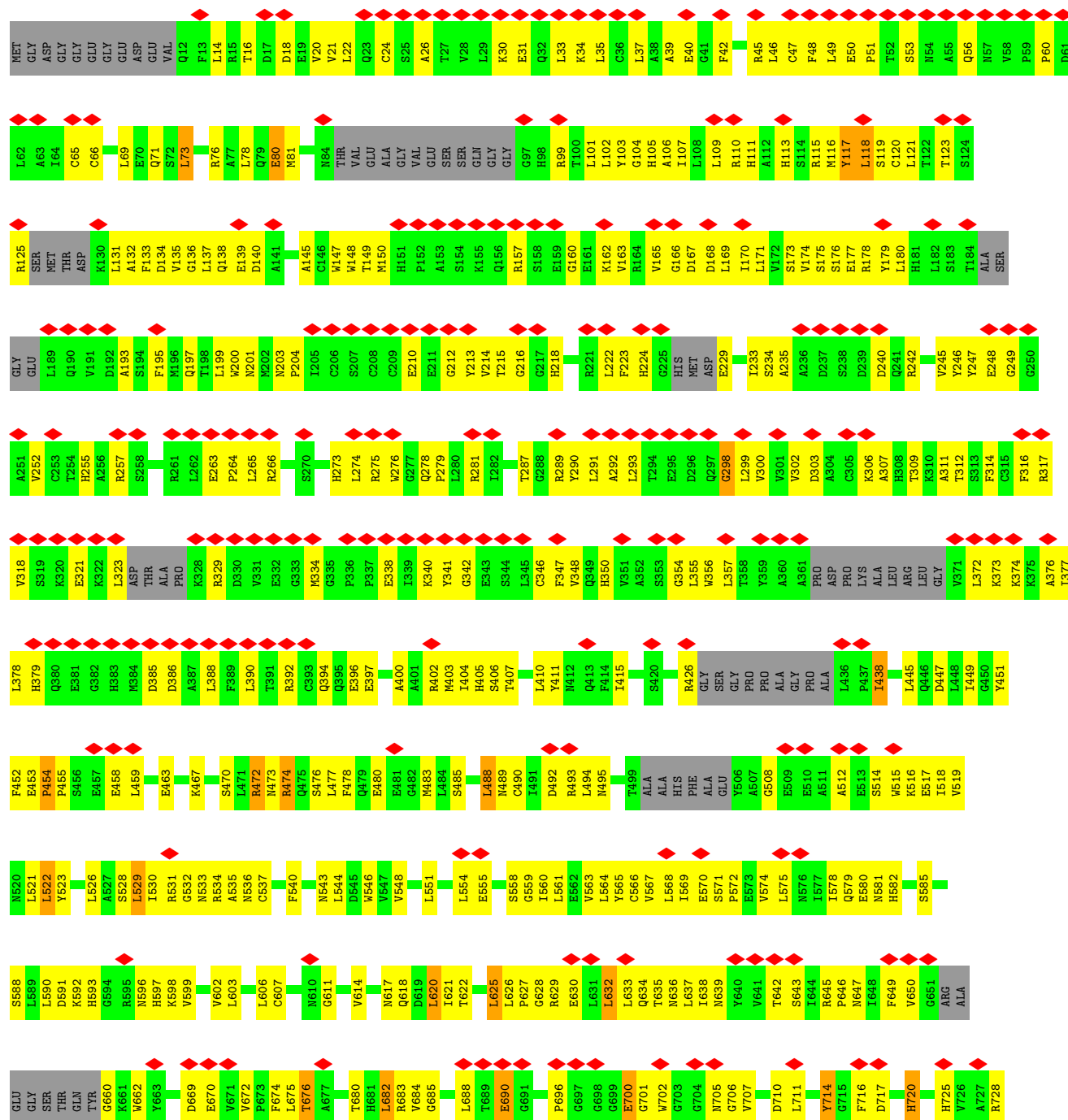








# Molecule 1: Ryanodine receptor 1













Q860	I861	V862	L863	P864	P865	H866	L867	E868	R869	I870	R871	E872	K873	H879	E880	A883	L884	T885	I886	E887	E888	Q889	Q890	W891	T892	Y893	G894	P895	V896	R897	D898	N899	N900	K901	R902	L903	H904	P905	C906	L907	V908	N909	F910	H911	S912	L913	P914	E915	P916	E917	R918	N919	Y920	N921	L922	Q923	H924										
GLY	ARG	HIS	GLY	GLY	E799	F800	R801	R802	L803	P804	P805	P806	G807	H812	E813	A814	V815	L816	P817	R818	E819	R820	L821	R822	L823	E824	R825	I826	K827	E828	Y829	R830	R831	E832	G833	P834	H838	L839	V840	G841	P842	S843	R844	C845	LEU	SER	HIS	THR	ASP	F851	R852	P853	C854	P855	V856	D857	L792	L793	G794								
T731	S732	F733	G734	L737	L738	A739	E741	D742	G746	G747	L748	L749	L750	S751	V752	P753	S754	I755	S756	F757	R758	G761	G762	V763	V764	V767	F768	E769	A770	F771	M772	L773	D774	G775	L776	F777	F778	P779	V780	V781	F783	S784	A785	G786	V787	K788	V789	R790	F791	L792	L793	G794															
ARG	ALA	GLU	GLY	SER	THR	GLN	TYR	G660	R661	W662	Y663	D669	E670	V671	P672	P673	P674	L675	T676	A677	L682	R683	V684	G685	L688	T689	E690	G691	P696	G697	G698	G699	E700	G701	W702	G703	G704	N705	G706	V707	D710	L711	Y714	G715	F716	D717	H720	H725	V726	A727	R728																
S588	L589	L590	D591	K592	H593	G594	R595	N596	H597	K598	V599	V602	L603	L606	C607	N610	G611	V614	N617	O618	P619	L620	T621	T622	E623	A556	S557	S558	G559	T560	L561	S562	V563	L564	Y565	C566	L568	T569	E570	S571	P572	E573	V574	L575	S576	R577	Q578	P645	P646	N647	T648	V649	V650	G651													
N520	L521	L522	P455	S456	E457	E458	L459	E463	K467	S470	L471	R472	N473	R474	Q475	S476	L477	F478	Q479	E480	E481	G482	M483	L484	S485	L488	N489	C490	L491	D492	R493	L494	N495	T499	ALA	ALA	HIS	PHE	ALA	GLU	Y506	A507	G508	E509	E510	A511	A512	E513	S514	W515	K516	E517	L518	V519													
L378	H379	Q380	E381	G382	H383	K384	D385	D386	A387	L388	F389	L390	T391	R392	C393	Q394	Q395	E396	E397	A400	A401	R402	N403	L404	H405	S406	L410	Y411	N412	Q413	F414	L415	S420	R426	GLY	SER	PRD	PRD	ALA	ALA	PRD	GLY	PRD	PRD	ALA	L436	P437	T438	L445	Q446	D447	L448	T449	G450	Y451												
F452	E453	P454	P455	S456	E457	E458	L459	E463	K467	S470	L471	R472	N473	R474	Q475	S476	L477	F478	Q479	E480	E481	G482	M483	L484	S485	L488	N489	C490	L491	D492	R493	L494	N495	T499	ALA	ALA	HIS	PHE	ALA	GLU	Y506	A507	G508	E509	E510	A511	A512	E513	S514	W515	K516	E517	L518	V519													
N520	L521	L522	P455	S456	E457	E458	L459	E463	K467	S470	L471	R472	N473	R474	Q475	S476	L477	F478	Q479	E480	E481	G482	M483	L484	S485	L488	N489	C490	L491	D492	R493	L494	N495	T499	ALA	ALA	HIS	PHE	ALA	GLU	Y506	A507	G508	E509	E510	A511	A512	E513	S514	W515	K516	E517	L518	V519													
S588	L589	L590	D591	K592	H593	G594	R595	N596	H597	K598	V599	V602	L603	L606	C607	N610	G611	V614	N617	O618	P619	L620	T621	T622	E623	A556	S557	S558	G559	T560	L561	S562	V563	L564	Y565	C566	L568	T569	E570	S571	P572	E573	V574	L575	S576	R577	Q578	P645	P646	N647	T648	V649	V650	G651													
ARG	ALA	GLU	GLY	SER	THR	GLN	TYR	G660	R661	W662	Y663	D669	E670	V671	P672	P673	P674	L675	T676	A677	L682	R683	V684	G685	L688	T689	E690	G691	P696	G697	G698	G699	E700	G701	W702	G703	G704	N705	G706	V707	D710	L711	Y714	G715	F716	D717	H720	H725	V726	A727	R728																
T731	S732	F733	G734	L737	L738	A739	E741	D742	G746	G747	L748	L749	L750	S751	V752	P753	S754	I755	S756	F757	R758	G761	G762	V763	V764	V767	F768	E769	A770	F771	M772	L773	D774	G775	L776	F777	F778	P779	V780	V781	F783	S784	A785	G786	V787	K788	V789	R790	F791	L792	L793	G794															
GLY	ARG	HIS	GLY	GLY	E799	F800	R801	R802	L803	P804	P805	P806	G807	H812	E813	A814	V815	L816	P817	R818	E819	R820	L821	R822	L823	E824	R825	I826	K827	E828	Y829	R830	R831	E832	G833	P834	H838	L839	V840	G841	P842	S843	R844	C845	LEU	SER	HIS	THR	ASP	F851	R852	P853	C854	P855	V856	D857	L792	L793	G794								
Q860	I861	V862	L863	P864	P865	H866	L867	E868	R869	I870	R871	E872	K873	H879	E880	A883	L884	T885	I886	E887	E888	Q889	Q890	W891	T892	Y893	G894	P895	V896	R897	D898	N899	N900	K901	R902	L903	H904	P905	C906	L907	V908	N909	F910	H911	S912	L913	P914	E915	P916	E917	R918	N919	Y920	N921	L922	Q923	H924										
A63	I64	C65	C66	F68	T68	L69	E70	Q71	S72	L73	R76	A77	Q79	E80	H81	N84	THR	VAL	GLU	GLU	GLY	VAL	GLY	VAL	GLY	VAL	GLU	SER	GLN	GLY	GLY	G37	H98	R99	T100	L102	Y103	G104	H105	A106	I107	L108	L109	R110	H11	A112	H113	S114	R115	M116	S117	E117	L118	S119	C120	L121	T122	T123	S124								
R125	SER	MET	THR	ASP	K130	L131	A132	D134	F135	D136	Q138	Q137	L139	N201	M202	N203	P204	A145	G146	W147	W148	C208	M150	H151	G217	E210	E211	A153	S154	K155	Q156	R157	G216	G217	S158	E159	G160	E161	K162	V163	F223	H224	V165	G166	D167	D168	L169	I170	L171	Y172	S173	V174	W175	D237	S176	E177	R178	Y179	L180	H181	Q241	R242	S182	S183	T184	ALA	SER
GLY	GLU	L189	Q190	V191	D192	L193	F195	S194	M196	Q197	L199	W200	N201	M202	N203	P204	C205	C206	S207	C208	C209	E210	E211	G212	Y213	W214	T215	G216	G217	H218	R221	L222	Y223	F223	H224	G225	HIS	MET	ASP	E229	I233	S234	A235	A236	D237	S238	D239	D240	A307	R308	T309	X310	A311	T312	S313	F314	C315	F316	R317								
A251	V252	C253	T254	H255	K256	R257	S258	R261	L262	E263	P264	L265	R266	S270	H273	L274	R275	W276	Q278	P279	L280	R281	T282	T287	G288	R289	Y290	L291	A292	L293	T294	E295	D296	G298	G299	G354	L355	A356	L357	T358	Y359	A360	A361	PRD	ASP	PRD	LVS	K306	A307	H308	T309	X310	A311	T312	S313	F314	C315	F316	R317								
V318	S319	P454	E320	K321	G322	L323	ASP	THR	ALA	PRD	X328	R329	D330	V331	E332	G333	M334	G335	P336	P337	E338	I339	K340	Y341	G342	E343	S344	L345	G346	F347	V348	Q349	H350	V351	A352	S353	G354	L355	A356	L357	T358	Y359	A360	A361	PRD	ASP	PRD	LVS	K306	A307	H308	T309	X310	A311	T312	S313	F314	C315	F316	R317							
L378	H379	Q380	E381	G382	H383	K384	D385	D386	A387	L388	F389	L390	T391	R392	C393	Q394	Q395	E396	E397	A400	A401	R402	N403	L404	H405	S406	L410	Y411	N412	Q413	F414	L415	S420	R426	GLY	SER	PRD	PRD	ALA	ALA	PRD	GLY	PRD	PRD	ALA	L436	P437	T438	L445	Q446	D447	L448	T449	G450	Y451												
F452	E453	P454	P455	S456	E457	E458	L459	E463	K467	S470	L471	R472	N473	R474	Q475	S476	L477	F478	Q479	E480	E481	G482	M483	L484	S485	L488	N489	C490	L491	D492	R493	L494	N495	T499	ALA	ALA	HIS	PHE	ALA	GLU	Y506	A507	G508	E509	E510	A511	A512	E513	S514	W515	K516	E517	L518	V519													
N520	L521	L522	P455	S456	E457	E458	L459	E463	K467	S470	L471	R472	N473	R474	Q475	S476	L477	F478	Q479	E480	E481	G482	M483	L484	S485	L488	N489	C490	L491	D492	R493	L494	N495	T499	ALA	ALA	HIS	PHE	ALA	GLU	Y506	A507	G508	E509	E510	A511	A512	E513	S514	W515	K516	E517	L518	V519													
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ARG	ALA	GLU	GLY	SER	THR	GLN	TYR	G660	R661	W662	Y663	D669	E670	V671	P672	P673	P674	L675	T676	A677	L682	R683	V684	G685	L688	T689	E690	G691	P696	G697	G698	G699	E700	G701	W702	G703	G704	N705	G706	V707	D710	L711	Y714	G715	F716	D717	H720	H725	V726	A727	R728																
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GLY	ARG	HIS	GLY	GLY	E799	F800	R801	R802	L803	P804	P805	P806	G807	H812	E813	A814	V815	L816	P817	R818	E819	R820	L821	R822	L823	E824	R825	I826	K827	E828	Y829	R830	R831	E832	G833	P834	H838	L839	V840	G841	P842	S843	R844	C845	LEU	SER	HIS	THR	ASP	F851	R852	P853	C854	P855	V856	D857	L792	L793	G794								

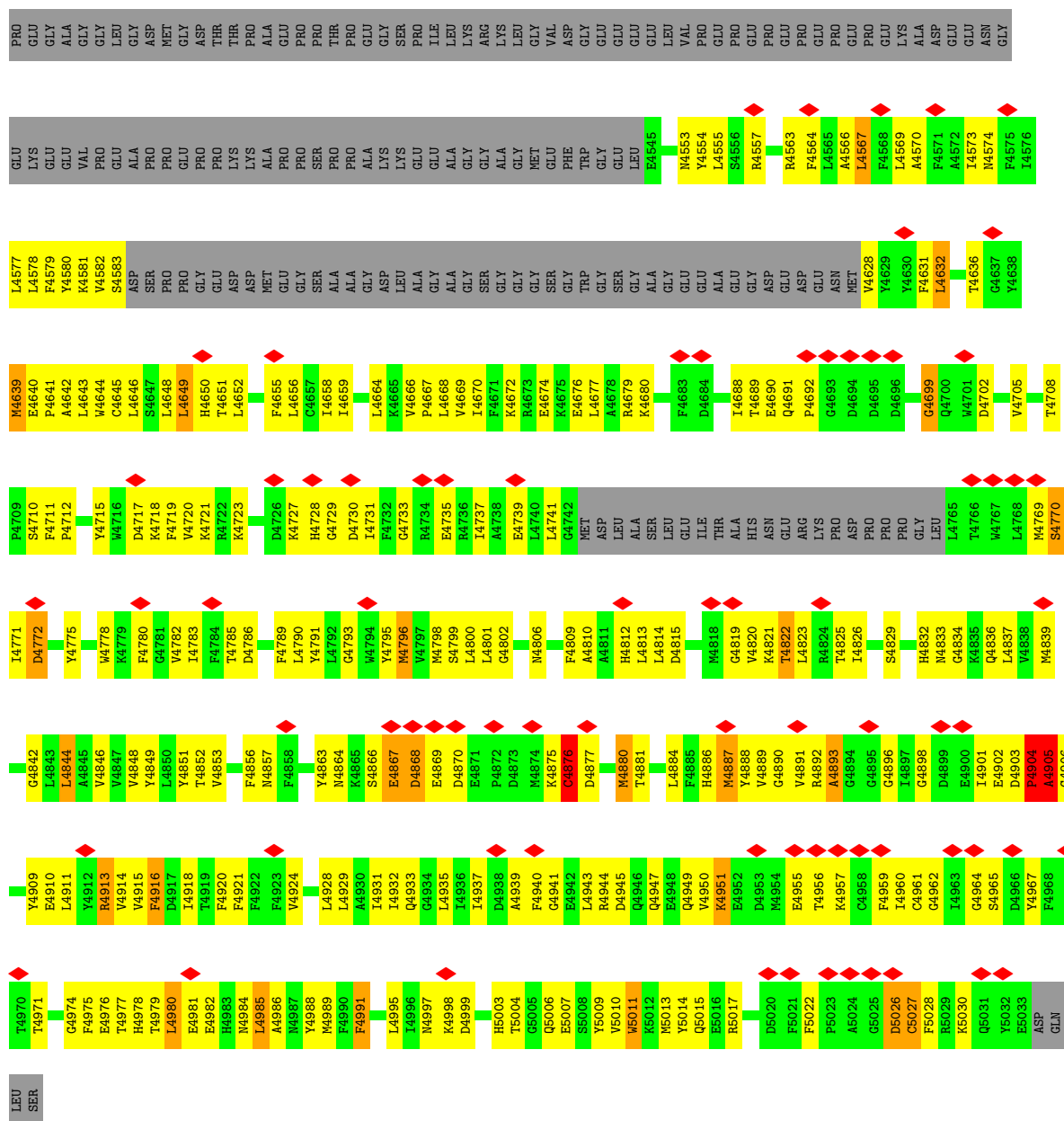






E2669	E2670	E2671	L2672	L2673	L2674	L2675	L2676	L2677	L2678	G2681	D2684	S2685	L2686	ALA	HIS	LYS	LYS	Y2691	D2692	Q2693	E2694	A2699	H2700	P2701	C2702	L2703	C2704	A2705	L2706	A2707	C2708	A2709	L2710	P2711	P2712	ASP	TVR	VAL	ASP	ALA	SER	TVR	SER	SER	LYS	LYS	ALA	LYS	GLU	LYS	LYS	THR	VAL	ASP	ALA	GLU	GLY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
N2734	F2735	D2736	P2737	R2738	P2739	V2740	E2741	T2742	L2743	N2744	V2745	L2746	I2747	P2748	E2749	K2750	L2751	D2752	S2753	F2754	L2755	N2756	K2757	F2758	A2759	E2760	Y2761	T2762	H2763	E2764	K2765	W2766	A2767	F2768	D2769	K2770	I2771	Q2772	N2773	N2774	W2775	S2776	Y2777	G2778	L2779	N2780	V2781	D2782	E2783	E2784	L2785	K2786	T2787	H2788	P2789	M2790	R2792	P2793																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Y2794	K2795	T2796	F2797	S2798	E2799	K2800	D2801	K2802	E2803	L2804	R2805	R2806	W2807	P2808	L2809	E2810	E2811	S2812	L2813	K2814	A2815	M2816	L2817	A2818	W2819	E2820	Y2821	T2822	E2824	K2825	A2826	R2827	E2828	Q2829	E2830	GLU	ARG	THR	GLU	LYS	LYS	LYS	THR	ARG	LYS	LYS	ILE	TRP	SER	GLN	THR	ALA	GLN	THR	Y2849	D2850	P2851	R2852	E2853																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
G2854	Y2855	N2856	P2857	S2858	P2859	P2860	D2861	L2862	S2863	G2864	V2865	T2866	L2867	S2868	R2869	E2870	L2871	Q2872	A2873	M2874	A2875	E2876	Q2877	L2878	A2879	E2880	N2881	Y2882	H2883	M2884	L2885	W2886	R2887	K2888	K2889	K2890	K2891	Q2892	E2893	L2894	E2895	A2896	GLN	GLN	LEU	LEU	LEU	TRP	MET	ASP	ILE	SER	GLN	PHE	V2906	P2907	Y2908	D2909	T2910	T2912	A2913																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
K2914	E2915	K2916	A2917	D2918	D2919	R2920	E2921	K2922	A2923	Q2924	E2925	L2926	L2927	K2928	F2929	L2930	Q2931	M2932	N2933	G2934	Y2935	A2936	V2937	T2938	R2939	G2940	LEU	LYS	ASP	GLU	LEU	ASP	THR	ILE	GLU	LYS	ARG	PHE	ALA	PHE	GLY	PHE	E2995	E2996	E2997	E2998	E2999	E3000	E3001	E3002	E3003	E3004	E3005	E3006	E3007	E3008	E3009	E3010	E3011	E3012	E3013	E3014	E3015	E3016	E3017	E3018	E3019	E3020	E3021	E3022	E3023	E3024	E3025	E3026	E3027	E3028	E3029	E3030	E3031	E3032	E3033	E3034	E3035	E3036	E3037	E3038	E3039	E3040	E3041	E3042	E3043	E3044	E3045	E3046	E3047	E3048	E3049	E3050	E3051	E3052	E3053	E3054	E3055	E3056	E3057	E3058	E3059	E3060	E3061	E3062	E3063	E3064	E3065	E3066	E3067	E3068	E3069	E3070	E3071	E3072	E3073	E3074	E3075	E3076	E3077	E3078	E3079	E3080	E3081	E3082	E3083	E3084	E3085	E3086	E3087	E3088	E3089	E3090	E3091	E3092	E3093	E3094	E3095	E3096	E3097	E3098	E3099	E3100	E3101	E3102	E3103	E3104	E3105	E3106	E3107	E3108	E3109	E3110	E3111	E3112	E3113	E3114	E3115	E3116	E3117	E3118	E3119	E3120	E3121	E3122	E3123	E3124	E3125	E3126	E3127	E3128	E3129	E3130	E3131	E3132	E3133	E3134	E3135	E3136	E3137	E3138	E3139	E3140	E3141	E3142	E3143	E3144	E3145	E3146	E3147	E3148	E3149	E3150	E3151	E3152	E3153	E3154	E3155	E3156	E3157	E3158	E3159	E3160	E3161	E3162	E3163	E3164	E3165	E3166	E3167	E3168	E3169	E3170	E3171	E3172	E3173	E3174	E3175	E3176	E3177	E3178	E3179	E3180	E3181	E3182	E3183	E3184	E3185	E3186	E3187	E3188	E3189	E3190	E3191	E3192	E3193	E3194	E3195	E3196	E3197	E3198	E3199	E3200	E3201	E3202	E3203	E3204	E3205	E3206	E3207	E3208	E3209	E3210	E3211	E3212	E3213	E3214	E3215	E3216	E3217	E3218	E3219	E3220	E3221	E3222	E3223	E3224	E3225	E3226	E3227	E3228	E3229	E3230	E3231	E3232	E3233	E3234	E3235	E3236	E3237	E3238	E3239	E3240	E3241	E3242	E3243	E3244	E3245	E3246	E3247	E3248	E3249	E3250	E3251	E3252	E3253	E3254	E3255	E3256	E3257	E3258	E3259	E3260	E3261	E3262	E3263	E3264	E3265	E3266	E3267	E3268	E3269	E3270	E3271	E3272	E3273	E3274	E3275	E3276	E3277	E3278	E3279	E3280	E3281	E3282	E3283	E3284	E3285	E3286	E3287	E3288	E3289	E3290	E3291	E3292	E3293	E3294	E3295	E3296	E3297	E3298	E3299	E3300	E3301	E3302	E3303	E3304	E3305	E3306	E3307	E3308	E3309	E3310	E3311	E3312	E3313	E3314	E3315	E3316	E3317	E3318	E3319	E3320	E3321	E3322	E3323	E3324	E3325	E3326	E3327	E3328	E3329	E3330	E3331	E3332	E3333	E3334	E3335	E3336	E3337	E3338	E3339	E3340	E3341	E3342	E3343	E3344	E3345	E3346	E3347	E3348	E3349	E3350	E3351	E3352	E3353	E3354	E3355	E3356	E3357	E3358	E3359	E3360	E3361	E3362	E3363	E3364	E3365	E3366	E3367	E3368	E3369	E3370	E3371	E3372	E3373	E3374	E3375	E3376	E3377	E3378	E3379	E3380	E3381	E3382	E3383	E3384	E3385	E3386	E3387	E3388	E3389	E3390	E3391	E3392	E3393	E3394	E3395	E3396	E3397	E3398	E3399	E3400	E3401	E3402	E3403	E3404	E3405	E3406	E3407	E3408	E3409	E3410	E3411	E3412	E3413	E3414	E3415	E3416	E3417	E3418	E3419	E3420	E3421	E3422	E3423	E3424	E3425	E3426	E3427	E3428	E3429	E3430	E3431	E3432	E3433	E3434	E3435	E3436	E3437	E3438	E3439	E3440	E3441	E3442	E3443	E3444	E3445	E3446	E3447	E3448	E3449	E3450	E3451	E3452	E3453	E3454	E3455	E3456	E3457	E3458	E3459	E3460	E3461	E3462	E3463	E3464	E3465	E3466	E3467	E3468	E3469	E3470	E3471	E3472	E3473	E3474	E3475	E3476	E3477	E3478	E3479	E3480	E3481	E3482	E3483	E3484	E3485	E3486	E3487	E3488	E3489	E3490	E3491	E3492	E3493	E3494	E3495	E3496	E3497	E3498	E3499	E3500	E3501	E3502	E3503	E3504	E3505	E3506	E3507	E3508	E3509	E3510	E3511	E3512	E3513	E3514	E3515	E3516	E3517	E3518	E3519	E3520	E3521	E3522	E3523	E3524	E3525	E3526	E3527	E3528	E3529	E3530	E3531	E3532	E3533	E3534	E3535	E3536	E3537	E3538	E3539	E3540	E3541	E3542	E3543	E3544	E3545	E3546	E3547	E3548	E3549	E3550	E3551	E3552	E3553	E3554	E3555	E3556	E3557	E3558	E3559	E3560	E3561	E3562	E3563	E3564	E3565	E3566	E3567	E3568	E3569	E3570	E3571	E3572	E3573	E3574	E3575	E3576	E3577	E3578	E3579	E3580	E3581	E3582	E3583	E3584	E3585	E3586	E3587	E3588	E3589	E3590	E3591	E3592	E3593	E3594	E3595	E3596	E3597	E3598	E3599	E3600	E3601	E3602	E3603	E3604	E3605	E3606	E3607	E3608	E3609	E3610	E3611	E3612	E3613	E3614	E3615	E3616	E3617	E3618	E3619	E3620	E3621	E3622	E3623	E3624	E3625	E3626	E3627	E3628	E3629	E3630	E3631	E3632	E3633	E3634	E3635	E3636	E3637	E3638	E3639	E3640	E3641	E3642	E3643	E3644	E3645	E3646	E3647	E3648	E3649	E3650	E3651	E3652	E3653	E3654	E3655	E3656	E3657	E3658	E3659	E3660	E3661	E3662	E3663	E3664	E3665	E3666	E3667	E3668	E3669	E3670	E3671	E3672	E3673	E3674	E3675	E3676	E3677	E3678	E3679	E3680	E3681	E3682	E3683	E3684	E3685	E3686	E3687	E3688	E3689	E3690	E3691	E3692	E3693	E3694	E3695	E3696	E3697	E3698	E3699	E3700	E3701	E3702	E3703	E3704	E3705	E3706	E3707	E3708	E3709	E3710	E3711	E3712	E3713	E3714	E3715	E3716	E3717	E3718	E3719	E3720	E3721	E3722	E3723	E3724	E3725	E3726	E3727	E3728	E3729	E3730	E3731	E3732	E3733	E3734	E3735	E3736	E3737	E3738	E3739	E3740	E3741	E3742	E3743	E3744	E3745	E3746	E3747	E3748	E3749	E3750	E3751	E3752	E3753	E3754	E3755	E3756	E3757	E3758	E3759	E3760	E3761	E3762	E3763	E3764	E3765	E3766	E3767	E3768	E3769	E3770	E3771	E3772	E3773	E3774	E3775	E3776	E3777	E3778	E3779	E3780	E3781	E3782	E3783	E3784	E3785	E3786	E3787	E3788	E3789	E3790	E3791	E3792	E3793	E3794	E3795	E3796	E3797	E3798	E3799	E3800	E3801	E3802	E3803	E3804	E3805	E3806	E3807	E3808	E3809	E3810	E3811	E3812	E3813	E3814	E3815	E3816	E3817	E3818	E3819	E3820	E3821	E3822	E3823	E3824	E3825	E3826	E3827	E3828	E3829	E3830	E3831	E3832	E3833	E3834	E3835	E3836	E3837	E3838	E3839	E3840	E3841	E3842	E3843	E3844	E3845	E3846	E3847	E3848	E3849	E3850	E3851	E3852	E3853	E3854	E3855	E3856	E3857	E3858	E3859	E3860	E3861	E3862	E3863	E3864	E3865	E3866	E3867	E3868	E3869	E3870	E3871	E3872	E3873	E3874	E3875	E3876	E3877	E3878	E3879	E3880	E3881	E3882	E3883	E3884	E3885	E3886	E3887	E3888	E3889	E3890	E3891	E3892	E3893	E3894	E3895	E3896	E3897	E3898	E3899	E3900	E3901	E3902	E3903	E3904	E3905	E3906	E3907	E3908	E3909	E3910	E3911	E3912	E3913	E3914	E3915	E3916	E3917	E3918	E3919	E3920	E3921	E3922	E3923	E3924	E3925	E3926	E3927	E3928	E3929	E3930	E3931	E3932	E3933	E3934	E3935	E3936	E3937	E3938	E3939	E3940	E3941	E3942	E3943	E3944	E3945	E3946	E3947	E3948	E3949	E3950	E3951	E3952	E3953	E3954	E3955	E3956	E3957	E3958	E3959	E3960	E3961	E3962	E3963	E3964	E3965	E3966	E3967	E3968	E3969	E3970	E3971	E3972	E3973	E3974	E3975	E3976	E3977	E3978	E3979	E3980	E3981	E3982	E3983	E3984	E3985	E3986	E3987	E3988	E3989	E3990	E3991	E3992	E3993	E3994	E3995	E3996	E3997	E3998	E3999	E4000	E4001	E4002	E4003	E4004	E4005	E4006	E4007	E4008	E4009	E4010	E4011	E4012	E4013	E4014	E4015	E4016	E4017	E4018	E4019	E4020	E4021	E4022	E4023	E4024	E4025	E4026	E4027	E4028	E4029	E4030	E4031	E4032	E4033	E4034	E4035	E4036	E4037	E4038	E4039	E4040	E4041	E4042	E4043	E4044	E4045	E4046	E4047	E4048	E4049	E4050	E4051	E4052	E4053	E4054	E4055	E4056	E4057	E4058	E4059	E4060	E4061	E4062	E4063	E4064	E4065	E4066	E4067	E4068	E4069	E4070	E4071	E4072	E4073	E4074	E4075	E4076	E4077	E4078	E4079	E4080	E4081	E4082	E4083	E4084	E4085	E4086	E4087	E4088	E4089</





Q981	T982	T983	L984	L988	N991	V1001	A1002	Q1003	GLY	TRP	SER	TYR	A934	L935	ALA	VAL	GLN	ASP	ASP	ILE	ALA	R1016	Y1024	R1025	L1026	L1027	D1028	E1029	A1030	T1031	K1032	R1033	L1034	M1035	R1036	D1037	S1038	L1039	C1040	Q1041	A1042	V1043	R1044	T1045	L1046	L1047	G1048	Y1049	G1050	Y1051	N1052	I1053	E1054	P1055	PRO	ASP		
N921	L922	Q923	N924	S925	G926	E927	T928	L929	K930	T931	L932	L933	A934	L935	ALA	VAL	GLN	ASP	ASP	ILE	ALA	R1016	Y1024	R1025	L1026	L1027	D1028	E1029	A1030	T1031	K1032	R1033	L1034	M1035	R1036	D1037	S1038	L1039	C1040	Q1041	A1042	V1043	R1044	T1045	L1046	L1047	G1048	Y1049	G1050	Y1051	N1052	I1053	E1054	P1055	PRO	ASP		
V856	D857	T858	V859	Q860	I861	V862	L863	P864	P865	H866	L867	E868	R869	I870	H871	E872	K873	H879	E880	A883	L884	T885	R886	Y887	E888	Q889	K890	L891	T892	Y893	G894	P895	V896	R897	D898	D899	N900	K901	R902	L903	H904	P905	C906	L907	V908	N909	F910	H911	S912	L913	P914	E915	P916	E917	R918	N919		
L792	L793	G794	GLY	ARG	HIS	GLY	E799	F800	K801	R802	L803	P804	P805	P806	G807	H812	E813	A814	V815	L816	P817	R818	E819	R820	L821	R822	L823	E824	P825	T826	K827	E828	Y829	R830	R831	E832	G833	P834	P837	H838	L839	V840	S841	P842	S843	R844	C845	LEU	SER	HIS	THR	ASP	F851	P852	C854	P855		
A727	R728	T731	S732	P733	Q734	Q735	H736	L737	L738	A739	E741	G742	C746	G747	L748	D749	L750	S751	Y752	P753	S754	S755	F756	F757	R758	G761	G762	F763	V764	V767	F768	E769	A770	F771	N772	L773	D774	G775	L776	F777	F778	P779	V780	V781	S782	F783	S784	A785	G786	V787	V788	V789	R790	F791				
F649	V650	G651	ALA	GLY	GLY	SER	THR	GLN	TYR	G660	F661	V662	V663	D669	E670	V671	F674	L675	T676	A677	L682	R683	V684	G685	L688	T689	E690	G691	P696	G697	G698	G699	E700	G701	V702	G703	G704	N705	G706	V707	D710	L711	Y714	G715	F716	D717	H720	H725	V726									
S585	S588	L589	L590	D591	K592	H593	G594	G595	N596	H597	K598	V599	V602	L603	L606	C607	N610	G611	V612	A613	V614	N617	Q618	D619	L620	L621	T622	E623	N624	L625	P626	G627	G628	R629	E630	L631	L632	L633	Q634	T635	N636	L637	L638	N639	V640	V641	T642	S643	T644	G645	P646	N647	L648					
E517	L518	V519	N520	L521	L522	Y523	L526	A527	S528	L529	I530	R531	G532	N533	R534	A535	N536	C537	F540	N543	L544	D545	V546	V547	V548	L551	L554	E555	S558	G559	L560	L561	E562	V563	L564	Y565	C566	V567	L568	L569	E570	S571	P572	E573	V574	L575	N576	L577	L578	Q579	E580	N581	H582					
Y451	F452	E453	P454	P455	S456	E457	E458	L459	E463	K467	S470	L471	R472	N473	R474	Q475	S476	L477	F478	Q479	E480	E481	G482	N483	S485	L488	N489	C490	L491	D492	R493	L494	N495	Y496	Y497	T498	T499	ALA	ALA	HIS	PHE	ALA	GLU	Y506	A507	G508	E509	E510	A511	A512	E513	S514	N515	K516				
I377	L378	H379	Q380	E381	G382	H383	N384	D385	D386	A387	L388	F389	L390	T391	R392	C393	Q394	Q395	E396	E397	A400	A401	R402	M403	I404	G405	S406	T407	L410	Y411	N412	Q413	F414	I415	S420	R426	GLY	SER	GLY	PRO	PRO	ALA	GLY	PRO	ALA	L436	P437	I438	L445	Q446	D447	L448	I449	G450				
R317	V318	S319	K320	E321	K322	L323	THR	ALA	PRO	K328	R329	D330	V331	E332	G333	M334	G335	P336	P337	E338	I339	K340	Y341	L280	G342	E343	S344	E345	L345	G346	F347	V348	Q349	H350	V351	A352	S353	G354	L355	V356	L357	T358	PRO	PRO	ALA	ALA	GLY	PRO	ALA	L436	P437	I438	L445	Q446	D447	L448	I449	G450
G250	A251	V252	C253	T254	H255	A256	R257	S258	R261	L262	E263	P264	L265	R266	S270	H273	L274	R275	W276	G277	Q278	P279	R281	D282	T287	G288	R289	Y290	L291	L222	A292	L293	T294	E295	D296	Q297	G298	V300	V301	V302	D303	A304	C305	S238	D239	K306	A307	H308	K309	K310	A311	T312	S313	F314	C315	F316		
SER	GLY	GLU	L189	Q190	V191	D192	A193	S194	F195	H196	Q197	L198	L199	W200	N201	M202	N203	P204	I205	C206	S207	C208	C209	E210	E211	G212	Y213	V214	T215	G216	G217	H218	R221	Q221	L222	F223	H224	G225	HIS	MET	ASP	E229	T233	S234	A235	A236	D237	S238	D239	K240	Q241	R242	V245	Y246	Y247	E248	G249	

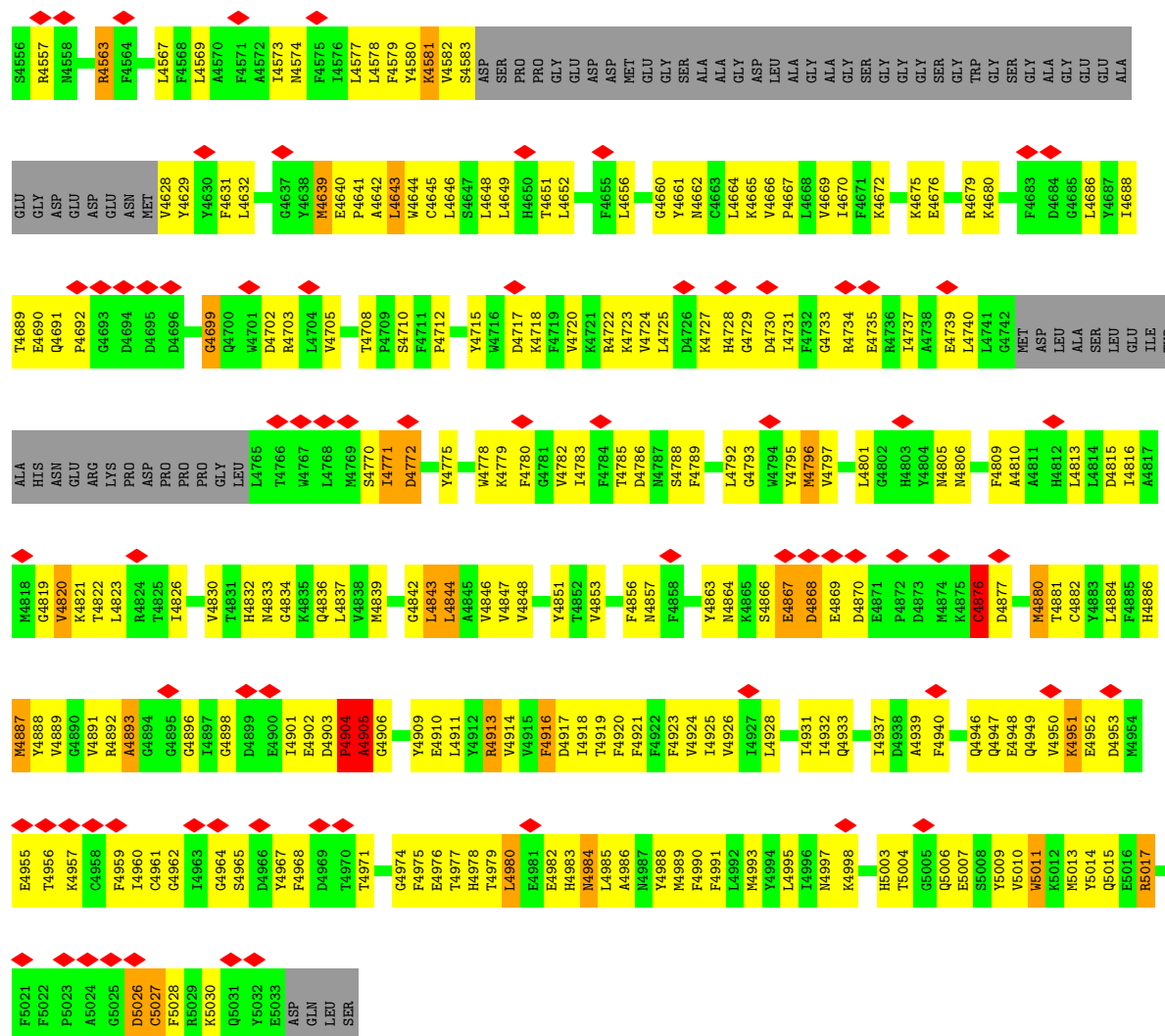


GLU	ALA	PRO	GLU	GLY	GLY	LYS	THR	ALA	ASP	LEU	THR	GLU	GLU	G1925	G1926	G1927	G1928	M1929	K1930	P1931	P1932	E1933	S1934	V1935	K1936	L1937	N1941	L1942	L1943	E1944	E1945	F1946	C1947	D1948	Q1949	E1950	L1951	V1955	A1959	A1960	F1961	A1962	Y1965	V1966	Q1973	R1974	S1975	R1976	T1977	ALA	LEU	LEU	ALA	LEU	LEU	GLY	ARG	ALA	ILE					
THR	MET	SER	ALA	ALA	GLU	GLY	THR	ALA	ARG	ARG	THR	GLU	GLU	T2067	S2068	L2069	R2062	L2063	R2064	S2065	L2066	T2069	V2070	R2071	L2072	VAL	LYS	LYS	LYS	LYS	GLU	GLU	PRO	GLU	GLU	ASP	CYS	PRO	LEU	PRO	GLU	ASP	ILE	ARG	GLN	ASP	LEU	GLN	ASP	PHE	HIS	GLN	ASP	LEU	LEU	ALA	ALA	HIS	CYS	GLY	ILE			
GLN	LEU	GLU	GLY	GLU	GLU	GLU	GLU	GLU	PRO	GLU	GLU	GLU	GLU	T2067	S2068	L2069	R2062	L2063	R2064	S2065	L2066	T2069	V2070	R2071	L2072	VAL	LYS	LYS	LYS	LYS	GLU	GLU	PRO	GLU	GLU	ASP	CYS	PRO	LEU	PRO	GLU	ASP	ILE	ARG	GLN	ASP	LEU	GLN	ASP	PHE	HIS	GLN	ASP	LEU	LEU	ALA	ALA	HIS	CYS	GLY	ILE			
Y2110	V2111	P2114	E2115	L2116	V2117	M2120	F2121	S2122	L2123	L2124	H2125	R2126	Q2127	D2128	G2130	L2131	L2134	L2135	R2136	A2137	L2138	R2139	R2140	A2141	Y2142	P2146	D2151	L2155	L2156	E2157	C2158	L2159	L2162	R2163	L2166	I2167	V2168	GLN	MET	GLY	PRO	Q2173	E2174	M2175	M2178	L2182	G2183	N2184																
N2188	F2191	N2196	L2197	M2198	R2199	A2200	L2201	S2202	G2203	M2204	H2204	E2205	R2206	V2207	E2208	E2209	V2210	M2211	V2212	M2213	V2214	L2215	G2216	GLY	GLU	THR	LYS	ILE	GLU	ARG	PHE	P2226	V2229	C2232	R2233	R2234	F2235	L2236	C2237	F2238	R2244	Q2245	N2246	Q2247	R2248	S2249	M2250	F2251	S2252	L2254														
L2258	E2259	N2260	S2261	G2262	L2263	GLY	LEU	GLY	MET	GLN	GLY	T2271	P2272	V2275	A2276	V2277	L2278	E2285	L2286	L2287	L2288	A2289	L2290	Q2291	E2292	Q2293	D2294	L2295	E2296	K2297	V2298	V2299	S2300	Y2301	L2302	L2303	A2304	C2305	L2306	GLN	SER	CYS	PRO	MET	LEU	LEU	ALA	ALA	GLY	GLY	SER	G2375	L2376	L2377	A2378	A2379	I2380	E2381	E2382	A2383	L2384			
TRP	ASN	P2325	C2326	G2327	G2328	E2329	R2330	Y2331	L2332	D2333	F2334	L2335	R2336	F2337	A2338	V2341	N2342	G2343	E2344	E2347	N2348	E2349	A2350	N2351	V2352	V2353	V2354	R2355	L2356	L2357	I2358	R2359	K2360	P2361	E2362	CYS	PHE	GLY	PRO	ALA	ARG	GLY	GLY	GLY	SER	G2375	L2376	L2377	A2378	A2379	I2380	E2381	E2382	A2383	L2384									
R2385	L2386	SER	ASP	PRO	ALA	ASP	ARG	GLY	PRO	GLY	VAL	ARG	ASP	ASP	ARG	ARG	GLU	HIS	PHE	GLY	GLU	PRO	PRO	GLU	GLU	ASN	VAL	HIS	LEU	H2419	H2420	A2421	L2422	M2423	S2424	F2425	Y2426	A2427	A2428	L2429	I2430	D2431	L2432	L2433	Q2434	R2435	C2436	A2437	PRO	GLU	MET	HIS	LEU	ILE	GLN									
ALA	GLY	LYS	GLY	E2449	A2450	L2451	R2452	I2453	R2454	A2455	L2456	L2457	R2458	S2459	L2460	VAL	PRO	D2463	D2464	L2465	L2466	V2467	G2468	L2474	Q2475	I2476	PRO	THR	LEU	GLY	LYS	ASP	GLY	ALA	VAL	L2547	L2548	A2549	L2550	N2551	R2552	Y2553	L2554	C2555	L2556	A2557	V2558	L2559	L2560	L2561	L2562	THR	LYS	CYS	ALA	P2567	L2568	F2569	A2570	Q2571	N2572	E2573	H2574	R2575
Y2510	GLY	ILE	GLU	H2514	Q2515	D2516	F2517	L2518	L2519	H2520	V2521	L2522	ASP	V2524	H2530	R2531	A2532	L2533	L2534	L2535	L2536	ASP	THR	ALA	THR	PHE	SER	THR	T2544	E2545	M2546	A2547	L2548	A2549	L2550	N2551	R2552	Y2553	L2554	C2555	L2556	A2557	V2558	L2559	L2560	L2561	L2562	THR	LYS	CYS	ALA	P2567	L2568	F2569	A2570	Q2571	N2572	E2573	H2574	R2575				
A2576	I2577	V2586	TYR	ARG	LEU	SER	R2591	L2595	R2600	I2603	E2604	M2608	A2609	CYS	ARG	TYR	ILE	P2615	P2616	L2619	Q2620	H2621	L2622	L2623	R2624	R2625	L2626	P2631	L2632	L2633	N2634	GLU	PHE	ALA	K2638	M2639	P2640	L2643	L2644	T2645	N2646	H2647	V2648	E2649	R2650	Q2651	Y2654	Y2655																
P2658	T2659	G2660	TRP	ALA	ASN	PHE	GLY	VAL	T2667	S2668	E2669	E2670	E2671	L2672	H2673	L2674	T2675	R2676	K2677	G2681	D2684	S2685	L2686	ALA	HIS	LYS	LYS	Y2691	D2692	Q2693	E2694	A2699	M2700	T2701	C2702	L2703	C2704	A2705	L2706	K2707	L2708	A2709	T2710	P2711	P2712	ASP	TYR	VAL	VAL	ASP	ALA	SER	TYR	SER	LYS	ALA								
GLU	LYS	ALA	THR	VAL	ASP	ALA	GLY	GLY	N2734	F2735	D2736	P2737	R2738	P2739	V2740	E2741	T2742	L2743	N2744	V2745	L2746	L2747	P2748	E2749	K2750	L2751	D2752	S2753	F2754	L2755	N2756	K2757	F2758	A2759	E2760	Y2761	T2762	H2763	E2764	K2765	L2766	A2767	F2768	D2769	K2770	L2771	Q2772	N2773	N2774	N2775	S2776	Y2777	G2778	E2779	N2780	V2781	D2782	E2783						

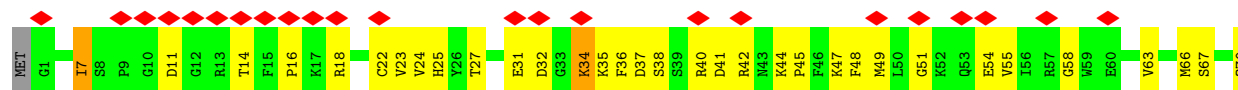




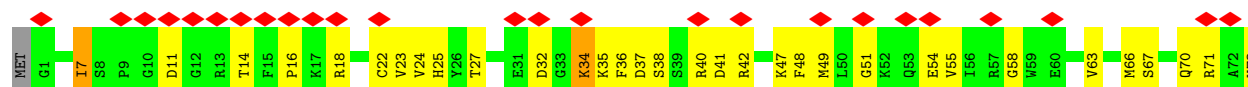
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PRO	GLY	LYS	LEU	SER	I4181	I4108	M4039	Q3971	N3897	S3835	E3750	S3678	S3678	GLU
GLU	ALA	VAL	ARG	GLU	E4182	Q4109	I4040	P3972	N3898	L3835	V3751	K3679	K3679	THR
GLU	GLY	VAL	ARG	GLU	I4183	F4110	A4041		F3899	Q3836	F3752	A3680	A3680	GLU
PRO	VAL	THR	VAL	GLY	M4184	L4111	R4042		Q3900	Q3837	F3753	GLY	GLY	GLU
GLU	VAL	THR	ARG	GLU	G4185	L4112	M4044		N3901	T3838	E3754			PRO
ALA	ALA	GLU	ARG	PRO	G4196	A4117	L4048		Y3902	Q3839	Q3761			GLU
GLU	VAL	LEU	ARG	GLU	A4198	D4118	V4049		R3904	C3839	Q3761			GLN
LEU	VAL	LEU	ARG	ALA	S4197	E4119	E4050		T3905	S3840	Q3761			GLU
ALA	ALA	GLY	ARG	ASP	R4198	E4119	E4050		R3906	V3841	Q3761			GLU
ASP	ASP	GLY	LEU	GLU	R4199	N4120	S4051		Q3907	L3842	L3764			SER
GLY	GLY	PRO	THR	ASP	I4199	I4123	M4054		C3908	D3843	L3764			LYS
ALA	ALA	ASP	ALA	GLU	E4199	F4125	M4054		N3909	L3844	ALA			LYS
GLY	GLY	THR	ARG	GLY	R4192	F4125	V4055		T3910	F3847	VAL			ALA
GLY	GLY	THR	GLU	GLY	I4193	F4125	V4055		R3911	L3844	VAL			VAL
PRO	PRO	SER	ALA	GLY	E4194	E4126	E4056		T3912	R3849	TRP			TRP
GLY	GLY	ASP	ALA	ALA	F4195	F4127	M4057		T3912	L3849	HIS			HIS
ALA	ALA	THR	THR	ALA	E4196	F4128	I4056		T3912	L3849	LEU			LEU
ALA	ALA	VAL	ALA	ALA	I4197	F4128	L4059		T3912	L3849	LEU			LEU
VAL	GLY	HIS	LEU	ALA	R4202	I4130	F4062		T3912	L3849	SER			SER
PRO	GLY	GLY	ALA	GLY	E4206	N4130	F4062		T3912	L3849	GLN			GLN
GLU	GLY	GLY	ALA	GLY	M4207	N4130	F4062		T3912	L3849	ARG			ARG
GLU	GLY	GLY	ALA	GLY	P4207	N4130	F4062		T3912	L3849	ARG			ARG
PRO	GLY	GLY	ALA	GLY	Q4209	N4130	F4062		T3912	L3849	ALA			ALA
ALA	GLY	GLY	ALA	GLY	V4210	N4130	F4062		T3912	L3849	ALA			ALA
LYS	THR	GLY	ALA	GLY	S4214	N4130	F4062		T3912	L3849	VAL			VAL
ALA	ALA	ASP	ALA	ALA	E4214	N4130	F4062		T3912	L3849	VAL			VAL
GLY	GLY	ASP	ALA	GLY	R4215	N4130	F4062		T3912	L3849	VAL			VAL
PRO	GLY	ASP	ALA	GLY	Q4216	N4130	F4062		T3912	L3849	VAL			VAL
PRO	GLY	GLY	ALA	GLY	F4217	N4130	F4062		T3912	L3849	VAL			VAL
THR	THR	GLY	ALA	GLY	E4218	N4130	F4062		T3912	L3849	VAL			VAL
GLY	GLY	GLY	ALA	GLY	L4146	N4130	F4062		T3912	L3849	VAL			VAL
GLY	GLY	GLY	ALA	GLY	E4219	N4130	F4062		T3912	L3849	VAL			VAL
ALA	GLY	GLY	ALA	GLY	L4150	N4130	F4062		T3912	L3849	VAL			VAL
LYS	GLY	GLY	ALA	GLY	E4221	N4130	F4062		T3912	L3849	VAL			VAL
LYS	SER	GLY	ALA	GLY	V4222	N4130	F4062		T3912	L3849	VAL			VAL
GLU	GLU	GLU	ALA	GLY	M4223	N4130	F4062		T3912	L3849	VAL			VAL
GLU	ILE	GLY	GLY	ALA	E4224	N4130	F4062		T3912	L3849	VAL			VAL
ALA	LEU	ASP	ALA	ALA	G4225	N4130	F4062		T3912	L3849	VAL			VAL
GLY	ARG	ALA	ARG	ALA	G4226	N4130	F4062		T3912	L3849	VAL			VAL
ALA	LYS	GLU	LEU	ALA	E4227	N4130	F4062		T3912	L3849	VAL			VAL
GLY	LEU	GLY	LEU	ALA	A4228	N4130	F4062		T3912	L3849	VAL			VAL
GLY	LEU	GLY	TRP	ALA	E4229	N4130	F4062		T3912	L3849	VAL			VAL
MET	GLY	ASP	TRP	ALA	K4230	N4130	F4062		T3912	L3849	VAL			VAL
PHE	GLY	ASP	SER	ALA	R4230	N4130	F4062		T3912	L3849	VAL			VAL
TRP	GLY	GLY	LEU	ALA	F4234	N4130	F4062		T3912	L3849	VAL			VAL
LEU	GLU	VAL	PHE	ALA	E4239	N4130	F4062		T3912	L3849	VAL			VAL
LEU	GLU	ALA	GLY	ALA	E4240	N4130	F4062		T3912	L3849	VAL			VAL
GLY	GLY	ALA	GLY	ALA	T4241	N4130	F4062		T3912	L3849	VAL			VAL
GLY	GLY	GLY	GLY	ALA	I4242	N4130	F4062		T3912	L3849	VAL			VAL
LEU	LEU	HIS	LEU	ALA	F4243	N4130	F4062		T3912	L3849	VAL			VAL
VAL	VAL	GLY	LEU	ALA	E4244	N4130	F4062		T3912	L3849	VAL			VAL
PRO	PRO	ALA	GLY	ALA	M4245	N4130	F4062		T3912	L3849	VAL			VAL
GLY	GLY	GLY	GLY	ALA	Q4246	N4130	F4062		T3912	L3849	VAL			VAL
PRO	PRO	PRO	PRO	ALA	A4249	N4130	F4062		T3912	L3849	VAL			VAL
					Q4250	N4130	F4062		T3912	L3849	VAL			VAL



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

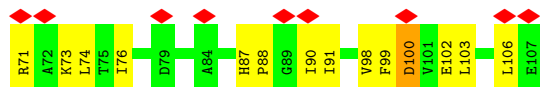


• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

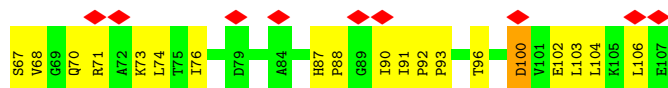
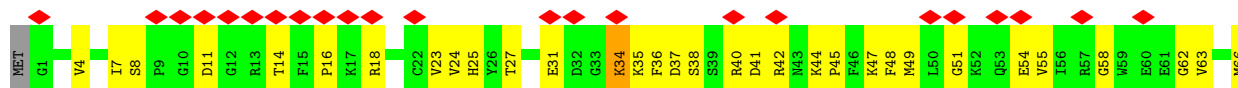




- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



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



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	30000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	40	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	0.243	Depositor
Minimum map value	-0.085	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.012	Depositor
Recommended contour level	0.075	Depositor
Map size ( $\text{\AA}$ )	482.40002, 482.40002, 482.40002	wwPDB
Map dimensions	360, 360, 360	wwPDB
Map angles ( $^\circ$ )	90.0, 90.0, 90.0	wwPDB
Pixel spacing ( $\text{\AA}$ )	1.34, 1.34, 1.34	Depositor

## 5 Model quality

### 5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
1	A	1.21	41/27312 (0.2%)	1.12	151/37004 (0.4%)
1	C	1.20	39/27312 (0.1%)	1.12	154/37004 (0.4%)
1	E	1.21	35/27312 (0.1%)	1.12	158/37004 (0.4%)
1	G	1.21	38/27312 (0.1%)	1.11	145/37004 (0.4%)
2	B	0.91	1/851 (0.1%)	0.93	2/1146 (0.2%)
2	D	0.91	1/851 (0.1%)	0.92	2/1146 (0.2%)
2	F	0.91	1/851 (0.1%)	0.92	2/1146 (0.2%)
2	H	0.93	1/851 (0.1%)	0.90	0/1146
All	All	1.20	157/112652 (0.1%)	1.11	614/152600 (0.4%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	36
1	C	0	35
1	E	0	36
1	G	0	34
All	All	0	141

All (157) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	80	GLU	CG-CD	11.12	1.68	1.51
1	G	3661	TRP	CB-CG	10.06	1.68	1.50
1	A	3661	TRP	CB-CG	9.81	1.68	1.50
1	G	1976	ARG	NE-CZ	9.78	1.45	1.33
1	A	741	GLU	CG-CD	9.74	1.66	1.51
1	E	5011	TRP	CB-CG	-9.37	1.33	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	5011	TRP	CB-CG	-9.29	1.33	1.50
1	C	5011	TRP	CB-CG	-9.22	1.33	1.50
1	E	3661	TRP	CB-CG	9.18	1.66	1.50
1	C	3661	TRP	CB-CG	9.15	1.66	1.50
1	G	1976	ARG	CD-NE	9.10	1.61	1.46
1	A	2926	LEU	CA-C	-8.45	1.30	1.52
1	G	80	GLU	CD-OE1	8.35	1.34	1.25
1	E	80	GLU	CG-CD	8.15	1.64	1.51
1	E	1976	ARG	NE-CZ	7.84	1.43	1.33
1	A	1976	ARG	CD-NE	7.76	1.59	1.46
1	G	4050	GLU	CD-OE2	7.70	1.34	1.25
1	C	1976	ARG	CD-NE	7.52	1.59	1.46
1	C	80	GLU	CG-CD	7.51	1.63	1.51
1	E	3670	GLU	CD-OE1	-7.43	1.17	1.25
1	C	3670	GLU	CD-OE1	-7.37	1.17	1.25
1	A	3670	GLU	CD-OE1	-7.35	1.17	1.25
1	G	5011	TRP	CB-CG	-7.22	1.37	1.50
1	C	1976	ARG	NE-CZ	7.17	1.42	1.33
1	G	741	GLU	CG-CD	7.17	1.62	1.51
1	G	3670	GLU	CD-OE1	-6.91	1.18	1.25
1	C	741	GLU	CG-CD	6.89	1.62	1.51
1	G	4215	ARG	CD-NE	6.87	1.58	1.46
1	C	1784	ALA	N-CA	6.79	1.59	1.46
1	E	4644	TRP	CB-CG	6.71	1.62	1.50
1	A	4644	TRP	CB-CG	6.66	1.62	1.50
1	C	4644	TRP	CB-CG	6.66	1.62	1.50
1	A	1784	ALA	N-CA	6.59	1.59	1.46
1	A	1867	GLU	CD-OE1	-6.54	1.18	1.25
1	E	80	GLU	CD-OE1	6.54	1.32	1.25
1	A	1976	ARG	NE-CZ	6.53	1.41	1.33
1	E	741	GLU	CG-CD	6.52	1.61	1.51
1	A	80	GLU	CG-CD	6.46	1.61	1.51
1	E	1867	GLU	CD-OE1	-6.44	1.18	1.25
1	C	1867	GLU	CD-OE1	-6.38	1.18	1.25
1	G	1867	GLU	CD-OE1	-6.29	1.18	1.25
1	G	3299	GLY	N-CA	6.27	1.55	1.46
1	G	4909	TYR	CB-CG	6.26	1.61	1.51
1	A	1973	GLN	CG-CD	6.22	1.65	1.51
1	G	1973	GLN	CG-CD	6.20	1.65	1.51
1	G	4644	TRP	CB-CG	6.18	1.61	1.50
1	A	700	GLU	CD-OE1	6.13	1.32	1.25
1	A	4822	THR	CB-CG2	-6.11	1.32	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	4822	THR	CB-CG2	-6.11	1.32	1.52
1	E	4909	TYR	CB-CG	6.08	1.60	1.51
1	E	4967	TYR	CB-CG	-6.07	1.42	1.51
1	A	4967	TYR	CB-CG	-6.03	1.42	1.51
1	G	4967	TYR	CB-CG	-6.03	1.42	1.51
1	C	4967	TYR	CB-CG	-6.00	1.42	1.51
1	A	4191	GLU	CG-CD	5.99	1.60	1.51
1	E	4191	GLU	CG-CD	5.96	1.60	1.51
1	C	700	GLU	CD-OE1	5.96	1.32	1.25
1	C	1973	GLN	CG-CD	5.95	1.64	1.51
1	C	4909	TYR	CB-CG	5.94	1.60	1.51
1	G	700	GLU	CD-OE1	5.92	1.32	1.25
1	E	1973	GLN	CG-CD	5.89	1.64	1.51
1	A	1933	GLU	CG-CD	5.88	1.60	1.51
2	H	100	ASP	CB-CG	5.87	1.64	1.51
1	G	623	GLU	CG-CD	5.86	1.60	1.51
1	E	700	GLU	CD-OE1	5.84	1.32	1.25
1	E	1784	ALA	N-CA	5.83	1.58	1.46
1	G	4699	GLY	N-CA	-5.83	1.37	1.46
1	E	4699	GLY	N-CA	-5.81	1.37	1.46
2	F	100	ASP	CB-CG	5.79	1.64	1.51
2	D	100	ASP	CB-CG	5.78	1.63	1.51
2	B	100	ASP	CB-CG	5.77	1.63	1.51
1	G	3665	GLU	CG-CD	5.76	1.60	1.51
1	C	1933	GLU	CG-CD	5.75	1.60	1.51
1	C	4191	GLU	CG-CD	5.73	1.60	1.51
1	G	4932	ILE	N-CA	-5.72	1.34	1.46
1	A	3299	GLY	N-CA	5.70	1.54	1.46
1	C	3299	GLY	N-CA	5.68	1.54	1.46
1	G	3916	ILE	N-CA	-5.68	1.34	1.46
1	A	4699	GLY	N-CA	-5.68	1.37	1.46
1	A	4909	TYR	CB-CG	5.67	1.60	1.51
1	C	4699	GLY	N-CA	-5.66	1.37	1.46
1	E	3916	ILE	N-CA	-5.63	1.35	1.46
1	E	1933	GLU	CG-CD	5.62	1.60	1.51
1	C	3916	ILE	N-CA	-5.61	1.35	1.46
1	E	3299	GLY	N-CA	5.61	1.54	1.46
1	E	1976	ARG	CD-NE	5.59	1.55	1.46
1	A	3665	GLU	CG-CD	5.59	1.60	1.51
1	A	3916	ILE	N-CA	-5.58	1.35	1.46
1	E	4876	CYS	CB-SG	-5.57	1.72	1.81
1	G	4191	GLU	CG-CD	5.56	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	1933	GLU	CG-CD	5.52	1.60	1.51
1	A	4545	GLU	CG-CD	5.50	1.60	1.51
1	C	3665	GLU	CG-CD	5.50	1.60	1.51
1	G	2577	ILE	N-CA	5.50	1.57	1.46
1	A	2577	ILE	N-CA	5.50	1.57	1.46
1	C	2577	ILE	N-CA	5.49	1.57	1.46
1	A	741	GLU	CD-OE1	5.47	1.31	1.25
1	G	1670	TYR	CG-CD1	-5.47	1.32	1.39
1	E	3665	GLU	CG-CD	5.46	1.60	1.51
1	A	4876	CYS	CB-SG	-5.43	1.73	1.81
1	A	4962	GLY	N-CA	-5.42	1.38	1.46
1	E	2577	ILE	N-CA	5.42	1.57	1.46
1	C	4876	CYS	CB-SG	-5.41	1.73	1.81
1	C	4962	GLY	N-CA	-5.39	1.38	1.46
1	E	4962	GLY	N-CA	-5.39	1.38	1.46
1	C	1670	TYR	CG-CD1	-5.38	1.32	1.39
1	C	2205	GLU	CG-CD	5.38	1.60	1.51
1	G	714	TYR	CG-CD2	5.28	1.46	1.39
1	C	714	TYR	CG-CD2	5.27	1.46	1.39
1	E	4215	ARG	CD-NE	5.26	1.55	1.46
1	A	714	TYR	CG-CD2	5.24	1.46	1.39
1	E	1670	TYR	CG-CD1	-5.23	1.32	1.39
1	E	2855	TYR	CG-CD1	5.21	1.46	1.39
1	G	3164	SER	N-CA	5.20	1.56	1.46
1	A	1670	TYR	CG-CD1	-5.19	1.32	1.39
1	E	1728	ARG	CZ-NH1	5.19	1.39	1.33
1	A	1836	PHE	CB-CG	-5.19	1.42	1.51
1	E	714	TYR	CG-CD2	5.18	1.45	1.39
1	G	1836	PHE	CB-CG	-5.18	1.42	1.51
1	A	2855	TYR	CG-CD1	5.18	1.45	1.39
1	A	529	LEU	CA-CB	-5.18	1.41	1.53
1	C	1836	PHE	CB-CG	-5.18	1.42	1.51
1	E	1836	PHE	CB-CG	-5.17	1.42	1.51
1	G	3525	CYS	CA-CB	-5.17	1.42	1.53
1	E	529	LEU	CA-CB	-5.16	1.41	1.53
1	G	4554	TYR	CB-CG	5.15	1.59	1.51
1	C	117	TYR	CE1-CZ	-5.14	1.31	1.38
1	A	1728	ARG	CZ-NH1	5.14	1.39	1.33
1	A	4888	TYR	CE2-CZ	-5.14	1.31	1.38
1	G	2855	TYR	CG-CD1	5.14	1.45	1.39
1	C	529	LEU	CA-CB	-5.14	1.42	1.53
1	G	4863	TYR	CG-CD2	-5.11	1.32	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	4050	GLU	CD-OE1	5.11	1.31	1.25
1	C	5011	TRP	CG-CD1	-5.11	1.29	1.36
1	A	3525	CYS	CA-CB	-5.11	1.42	1.53
1	C	4976	GLU	N-CA	5.10	1.56	1.46
1	G	529	LEU	CA-CB	-5.10	1.42	1.53
1	A	2094	LEU	N-CA	5.09	1.56	1.46
1	A	4554	TYR	CB-CG	5.09	1.59	1.51
1	C	2855	TYR	CG-CD1	5.09	1.45	1.39
1	A	5011	TRP	CG-CD1	-5.08	1.29	1.36
1	A	4976	GLU	N-CA	5.07	1.56	1.46
1	E	3525	CYS	CA-CB	-5.07	1.42	1.53
1	E	2094	LEU	N-CA	5.07	1.56	1.46
1	G	80	GLU	CB-CG	5.07	1.61	1.52
1	E	4554	TYR	CB-CG	5.06	1.59	1.51
1	G	4876	CYS	CB-SG	-5.05	1.73	1.81
1	C	1728	ARG	CZ-NH1	5.04	1.39	1.33
1	A	4575	PHE	CB-CG	5.04	1.59	1.51
1	C	4554	TYR	CB-CG	5.04	1.59	1.51
1	C	4215	ARG	CD-NE	5.04	1.55	1.46
1	C	4575	PHE	CB-CG	5.04	1.59	1.51
1	E	2381	GLU	CD-OE2	-5.02	1.20	1.25
1	C	3525	CYS	CA-CB	-5.01	1.43	1.53
1	G	4962	GLY	N-CA	-5.01	1.38	1.46
1	C	1976	ARG	CZ-NH1	5.00	1.39	1.33
1	A	4932	ILE	N-CA	-5.00	1.36	1.46

All (614) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	80	GLU	OE1-CD-OE2	-10.92	110.20	123.30
1	A	1212	ARG	NE-CZ-NH1	10.39	125.49	120.30
1	G	4796	MET	CG-SD-CE	10.33	116.73	100.20
1	G	1976	ARG	CD-NE-CZ	10.23	137.93	123.60
1	C	1212	ARG	NE-CZ-NH1	10.17	125.39	120.30
1	G	1212	ARG	NE-CZ-NH1	10.00	125.30	120.30
1	E	1212	ARG	NE-CZ-NH1	9.74	125.17	120.30
1	A	4159	ARG	NE-CZ-NH2	-9.68	115.46	120.30
1	C	4980	LEU	CB-CG-CD2	-9.59	94.70	111.00
1	A	4980	LEU	CB-CG-CD2	-9.55	94.76	111.00
1	E	4980	LEU	CB-CG-CD2	-9.53	94.80	111.00
1	C	3303	PRO	N-CA-CB	9.52	114.72	103.30
1	E	3303	PRO	N-CA-CB	9.46	114.65	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	1976	ARG	CD-NE-CZ	9.46	136.84	123.60
1	A	3303	PRO	N-CA-CB	9.35	114.52	103.30
1	C	4159	ARG	NE-CZ-NH2	-9.31	115.64	120.30
1	A	2640	PRO	N-CA-CB	9.29	114.45	103.30
1	C	2640	PRO	N-CA-CB	9.29	114.45	103.30
1	E	2640	PRO	N-CA-CB	9.28	114.44	103.30
1	G	2640	PRO	N-CA-CB	9.27	114.42	103.30
1	A	4909	TYR	CB-CG-CD1	9.25	126.55	121.00
1	G	4112	LEU	CB-CG-CD2	-9.20	95.35	111.00
1	G	4159	ARG	NE-CZ-NH2	-9.20	115.70	120.30
1	E	2497	ASP	CB-CG-OD1	9.13	126.52	118.30
1	G	1076	ARG	NE-CZ-NH1	9.04	124.82	120.30
1	E	4159	ARG	NE-CZ-NH2	-8.99	115.81	120.30
1	A	2567	PRO	N-CA-CB	8.98	114.08	103.30
1	G	4909	TYR	CB-CG-CD1	8.98	126.39	121.00
1	C	4909	TYR	CB-CG-CD1	8.96	126.38	121.00
1	E	2567	PRO	N-CA-CB	8.92	114.00	103.30
1	A	1976	ARG	NE-CZ-NH2	8.92	124.76	120.30
1	E	4909	TYR	CB-CG-CD1	8.85	126.31	121.00
1	G	2497	ASP	CB-CG-OD1	8.85	126.27	118.30
1	C	2497	ASP	CB-CG-OD1	8.81	126.23	118.30
1	E	1076	ARG	NE-CZ-NH1	8.79	124.69	120.30
1	A	1076	ARG	NE-CZ-NH1	8.76	124.68	120.30
1	G	2567	PRO	N-CA-CB	8.75	113.80	103.30
1	C	1076	ARG	NE-CZ-NH1	8.74	124.67	120.30
1	C	3297	PRO	N-CA-CB	8.72	113.76	103.30
1	A	2497	ASP	CB-CG-OD1	8.68	126.11	118.30
1	E	3297	PRO	N-CA-CB	8.65	113.68	103.30
1	C	2567	PRO	N-CA-CB	8.62	113.65	103.30
1	A	3297	PRO	N-CA-CB	8.60	113.61	103.30
1	C	2234	ARG	NE-CZ-NH2	8.52	124.56	120.30
1	E	2234	ARG	NE-CZ-NH2	8.41	124.50	120.30
1	E	4880	MET	CG-SD-CE	8.36	113.58	100.20
1	A	2234	ARG	NE-CZ-NH2	8.34	124.47	120.30
1	G	3303	PRO	N-CA-CB	8.34	113.31	103.30
1	E	3980	LEU	CB-CG-CD1	-8.31	96.88	111.00
1	G	3297	PRO	N-CA-CB	8.24	113.19	103.30
1	G	2234	ARG	NE-CZ-NH2	8.24	124.42	120.30
1	A	3843	ASP	CB-CG-OD1	8.10	125.59	118.30
1	G	66	CYS	CA-CB-SG	8.08	128.55	114.00
1	C	3980	LEU	CB-CG-CD1	-8.07	97.29	111.00
1	A	3980	LEU	CB-CG-CD1	-8.06	97.29	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	1976	ARG	CD-NE-CZ	8.06	134.89	123.60
1	C	66	CYS	CA-CB-SG	8.03	128.45	114.00
1	E	3843	ASP	CB-CG-OD1	8.01	125.51	118.30
1	E	386	ASP	CB-CG-OD2	7.99	125.49	118.30
1	A	66	CYS	CA-CB-SG	7.99	128.38	114.00
1	E	4564	PHE	CB-CG-CD2	7.96	126.37	120.80
1	A	4913	ARG	NE-CZ-NH2	-7.95	116.32	120.30
1	C	386	ASP	CB-CG-OD2	7.93	125.44	118.30
1	G	3208	PRO	N-CA-CB	7.91	112.79	103.30
1	E	66	CYS	CA-CB-SG	7.90	128.22	114.00
1	A	386	ASP	CB-CG-OD2	7.84	125.36	118.30
1	G	386	ASP	CB-CG-OD2	7.83	125.35	118.30
1	C	4880	MET	CG-SD-CE	7.82	112.70	100.20
1	C	3843	ASP	CB-CG-OD1	7.76	125.28	118.30
1	G	4913	ARG	NE-CZ-NH2	-7.74	116.43	120.30
1	A	1929	MET	CB-CG-SD	7.69	135.46	112.40
1	C	1929	MET	CB-CG-SD	7.68	135.45	112.40
1	C	1976	ARG	NE-CZ-NH2	7.67	124.14	120.30
1	G	115	ARG	NE-CZ-NH2	-7.66	116.47	120.30
1	G	3843	ASP	CB-CG-OD1	7.64	125.18	118.30
1	A	3208	PRO	N-CA-CB	7.62	112.44	103.30
1	E	3208	PRO	N-CA-CB	7.59	112.41	103.30
1	C	2131	LEU	CB-CG-CD1	7.58	123.88	111.00
1	A	3021	PRO	N-CA-CB	7.56	112.37	103.30
1	C	3208	PRO	N-CA-CB	7.53	112.33	103.30
1	E	3021	PRO	N-CA-CB	7.53	112.33	103.30
1	G	1929	MET	CB-CG-SD	7.52	134.95	112.40
1	G	4643	LEU	CB-CG-CD1	-7.50	98.25	111.00
1	E	1929	MET	CB-CG-SD	7.50	134.89	112.40
1	C	3021	PRO	N-CA-CB	7.48	112.28	103.30
1	G	3021	PRO	N-CA-CB	7.47	112.27	103.30
1	G	4039	MET	CB-CG-SD	7.46	134.79	112.40
1	E	4913	ARG	NE-CZ-NH2	-7.46	116.57	120.30
1	C	1728	ARG	NE-CZ-NH2	-7.45	116.58	120.30
1	A	4202	ARG	NE-CZ-NH2	7.42	124.01	120.30
1	A	4790	LEU	CB-CG-CD2	7.38	123.55	111.00
1	A	2131	LEU	CB-CG-CD1	7.33	123.47	111.00
1	G	2458	ARG	NE-CZ-NH2	-7.33	116.64	120.30
1	A	115	ARG	NE-CZ-NH2	-7.29	116.66	120.30
1	C	4564	PHE	CB-CG-CD2	7.28	125.90	120.80
1	G	3729	MET	CG-SD-CE	7.27	111.83	100.20
1	E	2131	LEU	CB-CG-CD1	7.27	123.36	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	4564	PHE	CB-CG-CD2	7.26	125.89	120.80
1	G	3301	PRO	N-CA-CB	7.26	112.02	103.30
1	A	2458	ARG	NE-CZ-NH2	-7.24	116.68	120.30
1	C	4790	LEU	CB-CG-CD2	7.23	123.30	111.00
1	A	2926	LEU	CA-C-N	-7.23	101.30	117.20
1	E	115	ARG	NE-CZ-NH2	-7.22	116.69	120.30
1	E	1855	GLY	N-CA-C	-7.21	95.08	113.10
1	C	1855	GLY	N-CA-C	-7.19	95.13	113.10
1	G	2131	LEU	CB-CG-CD1	7.19	123.22	111.00
1	C	1698	LEU	CB-CG-CD2	-7.18	98.79	111.00
1	A	5017	ARG	NE-CZ-NH2	-7.18	116.71	120.30
1	C	3729	MET	CG-SD-CE	7.18	111.68	100.20
1	G	1855	GLY	N-CA-C	-7.17	95.17	113.10
1	C	3085	PRO	N-CA-CB	7.17	111.90	103.30
1	G	2914	LYS	CD-CE-NZ	7.16	128.17	111.70
1	C	4913	ARG	NE-CZ-NH2	-7.16	116.72	120.30
1	E	2458	ARG	NE-CZ-NH2	-7.16	116.72	120.30
1	E	3729	MET	CG-SD-CE	7.15	111.64	100.20
1	E	5017	ARG	NE-CZ-NH2	-7.14	116.73	120.30
1	E	1698	LEU	CB-CG-CD2	-7.12	98.90	111.00
1	A	1855	GLY	N-CA-C	-7.11	95.33	113.10
1	G	1698	LEU	CB-CG-CD2	-7.08	98.96	111.00
1	A	1698	LEU	CB-CG-CD2	-7.07	98.98	111.00
1	A	3085	PRO	N-CA-CB	7.07	111.78	103.30
1	E	1728	ARG	NE-CZ-NH2	-7.06	116.77	120.30
1	C	4202	ARG	NE-CZ-NH2	7.05	123.83	120.30
1	E	4790	LEU	CB-CG-CD2	7.05	122.99	111.00
1	A	1728	ARG	NE-CZ-NH2	-7.03	116.78	120.30
1	G	2769	ASP	CB-CG-OD2	7.03	124.63	118.30
1	E	3085	PRO	N-CA-CB	7.03	111.73	103.30
1	G	3289	PRO	N-CA-CB	7.03	111.73	103.30
1	E	4202	ARG	NE-CZ-NH2	7.03	123.81	120.30
1	G	2711	PRO	N-CA-CB	7.00	111.69	103.30
1	C	2458	ARG	NE-CZ-NH2	-6.99	116.80	120.30
1	G	3085	PRO	N-CA-CB	6.95	111.64	103.30
1	A	1976	ARG	CD-NE-CZ	6.95	133.32	123.60
1	A	4880	MET	CG-SD-CE	6.93	111.28	100.20
1	A	2711	PRO	N-CA-CB	6.92	111.61	103.30
1	A	3729	MET	CG-SD-CE	6.91	111.26	100.20
1	A	5017	ARG	NE-CZ-NH1	6.91	123.75	120.30
1	E	2711	PRO	N-CA-CB	6.89	111.57	103.30
1	A	1867	GLU	OE1-CD-OE2	-6.89	115.03	123.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	5017	ARG	NE-CZ-NH2	-6.88	116.86	120.30
1	C	2711	PRO	N-CA-CB	6.86	111.53	103.30
1	E	80	GLU	OE1-CD-OE2	-6.85	115.08	123.30
1	E	4911	LEU	CB-CG-CD2	6.84	122.63	111.00
1	C	180	LEU	CB-CG-CD1	6.84	122.62	111.00
1	G	3427	PRO	N-CA-CB	6.82	111.49	103.30
1	G	2429	LEU	CB-CG-CD1	6.82	122.60	111.00
1	C	1867	GLU	OE1-CD-OE2	-6.82	115.11	123.30
1	G	1728	ARG	NE-CZ-NH2	-6.82	116.89	120.30
1	C	5017	ARG	NE-CZ-NH1	6.81	123.71	120.30
1	C	115	ARG	NE-CZ-NH2	-6.79	116.90	120.30
1	E	5017	ARG	NE-CZ-NH1	6.79	123.70	120.30
1	G	1974	ARG	NE-CZ-NH2	6.79	123.70	120.30
1	G	5026	ASP	CB-CG-OD1	6.79	124.41	118.30
1	E	1867	GLU	OE1-CD-OE2	-6.76	115.19	123.30
1	G	3188	PRO	N-CA-CB	6.75	111.40	103.30
1	E	4207	MET	CB-CG-SD	6.75	132.63	112.40
1	A	1942	LEU	CB-CG-CD2	-6.74	99.54	111.00
1	G	180	LEU	CB-CG-CD1	6.74	122.45	111.00
1	A	4839	MET	CG-SD-CE	6.72	110.95	100.20
1	C	3289	PRO	N-CA-CB	6.72	111.36	103.30
1	G	3980	LEU	CB-CG-CD1	-6.71	99.59	111.00
1	E	3289	PRO	N-CA-CB	6.71	111.35	103.30
1	A	180	LEU	CB-CG-CD1	6.70	122.39	111.00
1	E	180	LEU	CB-CG-CD1	6.69	122.38	111.00
1	A	3289	PRO	N-CA-CB	6.67	111.31	103.30
1	G	1283	LEU	CB-CG-CD2	6.67	122.33	111.00
1	G	2701	PRO	N-CA-CB	6.67	111.30	103.30
1	C	1283	LEU	CB-CG-CD2	6.66	122.32	111.00
1	C	2701	PRO	N-CA-CB	6.66	111.29	103.30
1	C	3301	PRO	N-CA-CB	6.65	111.28	103.30
1	A	3275	PRO	N-CA-CB	6.64	111.26	103.30
1	C	240	ASP	CB-CG-OD2	6.64	124.27	118.30
1	G	620	LEU	CB-CG-CD1	-6.64	99.72	111.00
1	G	3410	PRO	N-CA-CB	6.63	111.26	103.30
1	A	2701	PRO	N-CA-CB	6.63	111.25	103.30
1	E	3301	PRO	N-CA-CB	6.62	111.25	103.30
1	A	1283	LEU	CB-CG-CD2	6.62	122.25	111.00
1	E	2701	PRO	N-CA-CB	6.62	111.24	103.30
1	C	2769	ASP	CB-CG-OD2	6.61	124.25	118.30
1	E	3275	PRO	N-CA-CB	6.60	111.22	103.30
1	A	3301	PRO	N-CA-CB	6.60	111.22	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	1465	ASP	N-CA-CB	-6.60	98.72	110.60
1	E	1283	LEU	CB-CG-CD2	6.59	122.21	111.00
1	A	1465	ASP	N-CA-CB	-6.59	98.75	110.60
1	G	2234	ARG	NE-CZ-NH1	-6.59	117.01	120.30
1	A	2518	LEU	CA-CB-CG	6.58	130.43	115.30
1	C	2518	LEU	CA-CB-CG	6.58	130.43	115.30
1	C	3275	PRO	N-CA-CB	6.57	111.19	103.30
1	E	1942	LEU	CB-CG-CD2	-6.57	99.84	111.00
1	E	2518	LEU	CA-CB-CG	6.57	130.41	115.30
1	C	3410	PRO	N-CA-CB	6.57	111.18	103.30
1	C	1942	LEU	CB-CG-CD2	-6.55	99.86	111.00
1	C	1465	ASP	N-CA-CB	-6.55	98.82	110.60
1	G	1976	ARG	NE-CZ-NH1	6.54	123.57	120.30
1	E	1465	ASP	N-CA-CB	-6.54	98.83	110.60
1	G	240	ASP	CB-CG-OD2	6.54	124.18	118.30
1	A	3188	PRO	N-CA-CB	6.53	111.14	103.30
1	A	3410	PRO	N-CA-CB	6.52	111.12	103.30
1	E	3410	PRO	N-CA-CB	6.52	111.12	103.30
1	E	2769	ASP	CB-CG-OD2	6.51	124.16	118.30
1	A	240	ASP	CB-CG-OD2	6.51	124.16	118.30
1	E	1211	LEU	CA-CB-CG	6.49	130.23	115.30
1	G	3527	PRO	N-CA-CB	6.49	111.08	103.30
1	E	3188	PRO	N-CA-CB	6.48	111.08	103.30
1	A	488	LEU	CB-CG-CD2	6.47	122.01	111.00
1	A	2454	ARG	NE-CZ-NH2	-6.47	117.06	120.30
1	E	240	ASP	CB-CG-OD2	6.47	124.13	118.30
1	G	2518	LEU	CA-CB-CG	6.47	130.19	115.30
1	G	4911	LEU	CB-CG-CD2	6.46	121.99	111.00
1	G	4207	MET	CB-CG-SD	6.46	131.78	112.40
1	G	3886	ARG	NE-CZ-NH1	6.45	123.53	120.30
1	A	4207	MET	CB-CG-SD	6.44	131.73	112.40
1	C	3188	PRO	N-CA-CB	6.43	111.01	103.30
1	E	3567	PRO	N-CA-CB	6.41	110.99	103.30
1	C	3567	PRO	N-CA-CB	6.41	110.99	103.30
1	A	3567	PRO	N-CA-CB	6.40	110.98	103.30
1	C	1211	LEU	CA-CB-CG	6.40	130.02	115.30
1	E	4202	ARG	NE-CZ-NH1	-6.40	117.10	120.30
1	A	3427	PRO	N-CA-CB	6.40	110.97	103.30
1	E	2234	ARG	NE-CZ-NH1	-6.39	117.11	120.30
1	C	2234	ARG	NE-CZ-NH1	-6.39	117.11	120.30
1	G	1942	LEU	CB-CG-CD2	-6.38	100.16	111.00
1	E	620	LEU	CB-CG-CD1	-6.38	100.16	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2769	ASP	CB-CG-OD2	6.37	124.03	118.30
1	G	1211	LEU	CA-CB-CG	6.37	129.96	115.30
1	G	474	ARG	NE-CZ-NH1	6.37	123.48	120.30
1	C	80	GLU	OE1-CD-OE2	-6.37	115.66	123.30
1	E	488	LEU	CB-CG-CD2	6.36	121.82	111.00
1	G	4843	LEU	CB-CG-CD2	-6.36	100.19	111.00
1	E	3427	PRO	N-CA-CB	6.35	110.92	103.30
1	C	620	LEU	CB-CG-CD1	-6.35	100.20	111.00
1	A	2234	ARG	NE-CZ-NH1	-6.34	117.13	120.30
1	G	1867	GLU	OE1-CD-OE2	-6.34	115.69	123.30
1	A	4951	LYS	CD-CE-NZ	6.34	126.28	111.70
1	E	1976	ARG	NE-CZ-NH1	6.33	123.46	120.30
1	A	4159	ARG	NE-CZ-NH1	6.32	123.46	120.30
1	G	3360	PRO	N-CA-CB	6.32	110.88	103.30
1	A	4112	LEU	CB-CG-CD2	-6.32	100.26	111.00
1	C	3427	PRO	N-CA-CB	6.32	110.88	103.30
1	A	2429	LEU	CB-CG-CD1	6.31	121.72	111.00
1	A	474	ARG	NE-CZ-NH1	6.31	123.45	120.30
1	C	4207	MET	CB-CG-SD	6.30	131.31	112.40
1	E	4112	LEU	CB-CG-CD2	-6.30	100.28	111.00
1	G	5017	ARG	NE-CZ-NH1	6.30	123.45	120.30
1	C	488	LEU	CB-CG-CD2	6.29	121.69	111.00
1	E	3844	LEU	CB-CG-CD1	-6.29	100.31	111.00
1	G	3275	PRO	N-CA-CB	6.29	110.84	103.30
1	G	488	LEU	CB-CG-CD2	6.28	121.68	111.00
1	C	4911	LEU	CB-CG-CD2	6.28	121.68	111.00
1	E	971	ASP	CB-CG-OD2	6.28	123.95	118.30
1	C	4159	ARG	NE-CZ-NH1	6.27	123.43	120.30
1	C	4112	LEU	CB-CG-CD2	-6.26	100.35	111.00
1	E	4639	MET	CG-SD-CE	6.25	110.20	100.20
1	G	4639	MET	CG-SD-CE	6.25	110.20	100.20
1	G	3567	PRO	N-CA-CB	6.24	110.78	103.30
1	G	2454	ARG	NE-CZ-NH2	-6.23	117.19	120.30
1	A	1211	LEU	CA-CB-CG	6.21	129.58	115.30
1	A	620	LEU	CB-CG-CD1	-6.20	100.45	111.00
1	G	4887	MET	CG-SD-CE	6.20	110.12	100.20
1	C	4639	MET	CG-SD-CE	6.16	110.06	100.20
1	G	3886	ARG	NE-CZ-NH2	-6.15	117.22	120.30
1	G	4911	LEU	CA-CB-CG	6.15	129.44	115.30
1	A	4887	MET	CA-CB-CG	6.14	123.75	113.30
1	C	3844	LEU	CB-CG-CD1	-6.14	100.55	111.00
1	E	971	ASP	N-CA-C	6.14	127.58	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	474	ARG	NE-CZ-NH1	6.13	123.37	120.30
1	E	5026	ASP	CB-CG-OD1	6.13	123.82	118.30
1	E	4159	ARG	NE-CZ-NH1	6.13	123.36	120.30
1	C	4191	GLU	OE1-CD-OE2	-6.12	115.95	123.30
1	C	474	ARG	NE-CZ-NH1	6.12	123.36	120.30
1	A	291	LEU	CB-CG-CD1	-6.11	100.61	111.00
1	C	3282	PRO	N-CA-CB	6.11	110.63	103.30
1	A	4639	MET	CG-SD-CE	6.11	109.97	100.20
1	C	4887	MET	CA-CB-CG	6.10	123.68	113.30
1	A	1974	ARG	NE-CZ-NH2	6.09	123.35	120.30
1	G	3282	PRO	N-CA-CB	6.08	110.60	103.30
1	C	2518	LEU	CB-CG-CD2	6.08	121.33	111.00
1	G	291	LEU	CB-CG-CD1	-6.07	100.68	111.00
1	C	472	ARG	NE-CZ-NH2	-6.06	117.27	120.30
1	C	1974	ARG	NE-CZ-NH2	6.06	123.33	120.30
1	A	3844	LEU	CB-CG-CD1	-6.05	100.71	111.00
1	E	3282	PRO	N-CA-CB	6.05	110.56	103.30
1	E	1974	ARG	NE-CZ-NH2	6.05	123.33	120.30
1	A	2518	LEU	CB-CG-CD2	6.05	121.28	111.00
1	G	3985	LEU	CB-CG-CD1	-6.05	100.72	111.00
1	C	4202	ARG	NE-CZ-NH1	-6.03	117.28	120.30
1	G	4112	LEU	CB-CG-CD1	6.03	121.24	111.00
1	C	73	LEU	CB-CG-CD2	-6.02	100.76	111.00
1	E	1659	LEU	CB-CG-CD1	6.02	121.24	111.00
1	E	2518	LEU	CB-CG-CD2	6.02	121.24	111.00
1	A	3282	PRO	N-CA-CB	6.02	110.52	103.30
1	E	472	ARG	NE-CZ-NH2	-6.02	117.29	120.30
1	A	4191	GLU	OE1-CD-OE2	-6.01	116.09	123.30
1	C	1659	LEU	CB-CG-CD1	6.00	121.21	111.00
1	E	4191	GLU	OE1-CD-OE2	-6.00	116.10	123.30
1	G	3062	PRO	N-CA-CB	6.00	110.50	103.30
1	G	4844	LEU	CA-CB-CG	6.00	129.09	115.30
1	E	4951	LYS	CD-CE-NZ	5.99	125.48	111.70
1	C	4951	LYS	CD-CE-NZ	5.99	125.47	111.70
1	A	5026	ASP	CB-CG-OD1	5.98	123.68	118.30
1	E	291	LEU	CB-CG-CD1	-5.98	100.84	111.00
1	C	291	LEU	CB-CG-CD1	-5.97	100.85	111.00
1	A	472	ARG	NE-CZ-NH2	-5.97	117.31	120.30
1	A	1659	LEU	CB-CG-CD1	5.97	121.14	111.00
1	A	625	LEU	CB-CG-CD1	-5.96	100.87	111.00
1	G	1659	LEU	CB-CG-CD1	5.96	121.13	111.00
1	G	2518	LEU	CB-CG-CD2	5.96	121.13	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	971	ASP	N-CA-C	5.96	127.08	111.00
1	E	4215	ARG	NE-CZ-NH1	5.95	123.28	120.30
1	C	4911	LEU	CA-CB-CG	5.95	128.99	115.30
1	E	2546	MET	CB-CG-SD	5.93	130.19	112.40
1	G	522	LEU	CA-CB-CG	5.93	128.93	115.30
1	A	4887	MET	CG-SD-CE	5.92	109.68	100.20
1	A	522	LEU	CA-CB-CG	5.92	128.92	115.30
1	G	3844	LEU	CB-CG-CD1	-5.91	100.95	111.00
1	C	522	LEU	CA-CB-CG	5.91	128.89	115.30
1	C	4039	MET	CG-SD-CE	5.90	109.64	100.20
1	G	625	LEU	CB-CG-CD1	-5.90	100.97	111.00
1	G	73	LEU	CB-CG-CD2	-5.90	100.97	111.00
1	A	4916	PHE	CB-CG-CD1	-5.89	116.67	120.80
1	E	522	LEU	CA-CB-CG	5.89	128.85	115.30
1	C	2454	ARG	NE-CZ-NH1	5.89	123.25	120.30
1	C	971	ASP	N-CA-C	5.89	126.89	111.00
1	E	1976	ARG	CG-CD-NE	5.89	124.16	111.80
1	C	5026	ASP	CB-CG-OD1	5.88	123.59	118.30
1	G	3351	PRO	N-CA-CB	5.88	110.36	103.30
1	G	474	ARG	NE-CZ-NH2	-5.87	117.36	120.30
1	A	4844	LEU	CA-CB-CG	5.87	128.80	115.30
1	A	971	ASP	N-CA-C	5.87	126.85	111.00
1	E	73	LEU	CB-CG-CD2	-5.87	101.03	111.00
1	E	3138	PRO	N-CA-CB	5.85	110.32	103.30
1	E	2429	LEU	CB-CG-CD1	5.85	120.95	111.00
1	A	3773	ARG	NE-CZ-NH2	5.85	123.22	120.30
1	C	3138	PRO	N-CA-CB	5.84	110.31	103.30
1	E	2163	ARG	NE-CZ-NH2	-5.84	117.38	120.30
1	E	3758	MET	CG-SD-CE	5.83	109.53	100.20
1	C	4887	MET	CG-SD-CE	5.82	109.52	100.20
1	C	4844	LEU	CA-CB-CG	5.82	128.68	115.30
1	C	3360	PRO	N-CA-CB	5.81	110.28	103.30
1	G	1076	ARG	NE-CZ-NH2	-5.81	117.39	120.30
1	G	2546	MET	CB-CG-SD	5.81	129.84	112.40
1	C	2429	LEU	CB-CG-CD1	5.81	120.88	111.00
1	A	2631	PRO	N-CA-CB	5.80	110.26	103.30
1	C	2631	PRO	N-CA-CB	5.79	110.25	103.30
1	G	1112	ASP	CB-CG-OD1	5.79	123.52	118.30
1	E	4039	MET	CB-CG-SD	5.79	129.76	112.40
1	G	4980	LEU	CB-CG-CD2	-5.79	101.16	111.00
1	A	1212	ARG	NE-CZ-NH2	-5.78	117.41	120.30
1	C	2546	MET	CB-CG-SD	5.77	129.72	112.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	1112	ASP	CB-CG-OD1	5.77	123.49	118.30
1	E	2454	ARG	NE-CZ-NH1	5.77	123.18	120.30
1	A	3360	PRO	N-CA-CB	5.76	110.21	103.30
1	A	4039	MET	CG-SD-CE	5.76	109.42	100.20
1	E	3360	PRO	N-CA-CB	5.76	110.21	103.30
1	E	4916	PHE	CB-CG-CD1	-5.76	116.77	120.80
1	A	46	LEU	CB-CG-CD1	5.76	120.79	111.00
1	C	3062	PRO	N-CA-CB	5.75	110.20	103.30
1	C	4916	PHE	CB-CG-CD1	-5.75	116.78	120.80
1	G	1212	ARG	NE-CZ-NH2	-5.74	117.43	120.30
1	E	4887	MET	CA-CB-CG	5.73	123.04	113.30
1	A	2546	MET	CB-CG-SD	5.72	129.57	112.40
1	E	3062	PRO	N-CA-CB	5.72	110.17	103.30
1	A	971	ASP	CB-CG-OD2	5.72	123.45	118.30
1	A	4911	LEU	CA-CB-CG	5.72	128.46	115.30
1	E	625	LEU	CB-CG-CD1	-5.72	101.27	111.00
1	A	3138	PRO	N-CA-CB	5.72	110.16	103.30
1	E	2631	PRO	N-CA-CB	5.72	110.16	103.30
1	A	4991	PHE	CB-CG-CD1	-5.71	116.80	120.80
1	G	472	ARG	NE-CZ-NH2	-5.71	117.44	120.30
1	G	3302	PRO	N-CA-CB	5.70	110.14	103.30
1	G	2631	PRO	N-CA-CB	5.70	110.14	103.30
1	A	3758	MET	CG-SD-CE	5.70	109.32	100.20
1	E	2094	LEU	CB-CG-CD2	5.70	120.69	111.00
1	E	3294	PRO	N-CA-CB	5.70	110.14	103.30
1	A	3294	PRO	N-CA-CB	5.70	110.14	103.30
1	A	4039	MET	CB-CG-SD	5.68	129.43	112.40
1	C	4567	LEU	CB-CG-CD2	5.67	120.63	111.00
1	A	3062	PRO	N-CA-CB	5.66	110.09	103.30
1	C	3294	PRO	N-CA-CB	5.66	110.09	103.30
1	A	4567	LEU	CB-CG-CD2	5.65	120.61	111.00
1	E	4976	GLU	OE1-CD-OE2	5.65	130.08	123.30
1	E	2518	LEU	CB-CG-CD1	-5.65	101.40	111.00
1	C	2094	LEU	CB-CG-CD1	-5.64	101.40	111.00
1	E	2094	LEU	CB-CG-CD1	-5.64	101.40	111.00
1	A	3351	PRO	N-CA-CB	5.64	110.07	103.30
1	C	3758	MET	CG-SD-CE	5.63	109.21	100.20
1	G	971	ASP	CB-CG-OD2	5.63	123.37	118.30
1	A	1112	ASP	CB-CG-OD1	5.62	123.36	118.30
1	C	1076	ARG	NE-CZ-NH2	-5.61	117.49	120.30
1	C	4044	MET	CB-CG-SD	-5.61	95.56	112.40
1	E	4911	LEU	CA-CB-CG	5.61	128.21	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	4044	MET	CB-CG-SD	-5.61	95.57	112.40
1	C	2094	LEU	CB-CG-CD2	5.61	120.54	111.00
1	C	2116	LEU	CB-CG-CD2	-5.61	101.47	111.00
1	E	4880	MET	CB-CG-SD	5.61	129.22	112.40
1	E	4112	LEU	CB-CG-CD1	5.60	120.53	111.00
1	C	4581	LYS	CD-CE-NZ	5.60	124.58	111.70
1	C	1212	ARG	NE-CZ-NH2	-5.60	117.50	120.30
1	E	4039	MET	CG-SD-CE	5.60	109.16	100.20
1	G	3769	ARG	NE-CZ-NH2	-5.60	117.50	120.30
1	G	4048	LEU	CB-CG-CD2	5.60	120.52	111.00
1	G	2116	LEU	CB-CG-CD2	-5.59	101.49	111.00
1	G	2094	LEU	CB-CG-CD2	5.59	120.51	111.00
1	C	474	ARG	NE-CZ-NH2	-5.59	117.50	120.30
1	C	1112	ASP	CB-CG-OD1	5.59	123.33	118.30
1	A	2094	LEU	CB-CG-CD1	-5.59	101.50	111.00
1	C	625	LEU	CB-CG-CD1	-5.58	101.51	111.00
1	C	2518	LEU	CB-CG-CD1	-5.57	101.53	111.00
1	G	4202	ARG	NE-CZ-NH2	5.57	123.09	120.30
1	G	4916	PHE	CB-CG-CD1	-5.57	116.90	120.80
1	G	2518	LEU	CB-CG-CD1	-5.57	101.54	111.00
1	A	2518	LEU	CB-CG-CD1	-5.56	101.54	111.00
1	E	46	LEU	CB-CG-CD1	5.56	120.45	111.00
1	E	118	LEU	CB-CG-CD2	-5.56	101.55	111.00
1	C	46	LEU	CB-CG-CD1	5.56	120.45	111.00
1	G	180	LEU	CB-CG-CD2	-5.56	101.55	111.00
1	E	4044	MET	CB-CG-SD	-5.55	95.74	112.40
1	C	2454	ARG	NE-CZ-NH2	-5.55	117.53	120.30
1	A	1076	ARG	NE-CZ-NH2	-5.55	117.53	120.30
1	E	474	ARG	NE-CZ-NH2	-5.54	117.53	120.30
1	C	4679	ARG	NE-CZ-NH1	5.54	123.07	120.30
1	G	2123	LEU	CA-CB-CG	-5.54	102.57	115.30
1	A	2658	PRO	N-CA-CB	5.53	109.94	103.30
1	A	2116	LEU	CB-CG-CD2	-5.53	101.60	111.00
1	A	4909	TYR	CE1-CZ-OH	5.53	135.02	120.10
1	C	4976	GLU	OE1-CD-OE2	5.53	129.93	123.30
1	G	46	LEU	CB-CG-CD1	5.53	120.39	111.00
1	A	2094	LEU	CB-CG-CD2	5.52	120.39	111.00
1	C	3351	PRO	N-CA-CB	5.51	109.92	103.30
1	C	4039	MET	CB-CG-SD	5.51	128.94	112.40
1	A	4581	LYS	CD-CE-NZ	5.51	124.37	111.70
1	C	180	LEU	CB-CG-CD2	-5.51	101.63	111.00
1	E	2454	ARG	NE-CZ-NH2	-5.51	117.55	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	4976	GLU	OE1-CD-OE2	5.50	129.90	123.30
1	A	180	LEU	CB-CG-CD2	-5.50	101.66	111.00
1	G	118	LEU	CB-CG-CD2	-5.49	101.66	111.00
1	G	2658	PRO	N-CA-CB	5.49	109.89	103.30
1	A	4202	ARG	NE-CZ-NH1	-5.49	117.56	120.30
1	E	1076	ARG	NE-CZ-NH2	-5.49	117.56	120.30
1	A	474	ARG	NE-CZ-NH2	-5.48	117.56	120.30
1	G	3294	PRO	N-CA-CB	5.48	109.87	103.30
1	C	971	ASP	CB-CG-OD2	5.48	123.23	118.30
1	E	4567	LEU	CB-CG-CD2	5.47	120.30	111.00
1	G	1976	ARG	CG-CD-NE	5.46	123.27	111.80
1	C	1128	ARG	NE-CZ-NH1	5.46	123.03	120.30
1	E	180	LEU	CB-CG-CD2	-5.46	101.72	111.00
1	C	4649	LEU	CB-CG-CD2	-5.45	101.73	111.00
1	E	632	LEU	CB-CG-CD1	5.44	120.25	111.00
1	E	3351	PRO	N-CA-CB	5.44	109.83	103.30
1	E	22	LEU	CB-CG-CD1	-5.44	101.75	111.00
1	C	4991	PHE	CB-CG-CD1	-5.44	116.99	120.80
1	C	2658	PRO	N-CA-CB	5.44	109.82	103.30
1	E	2658	PRO	N-CA-CB	5.44	109.82	103.30
1	C	632	LEU	CB-CG-CD1	5.43	120.23	111.00
1	A	802	PHE	CB-CG-CD1	-5.42	117.00	120.80
1	E	4887	MET	CG-SD-CE	5.42	108.88	100.20
1	E	3773	ARG	NE-CZ-NH2	5.42	123.01	120.30
1	A	4679	ARG	NE-CZ-NH1	5.42	123.01	120.30
1	C	4112	LEU	CB-CG-CD1	5.42	120.21	111.00
1	A	4215	ARG	NE-CZ-NH1	5.42	123.01	120.30
1	G	773	LEU	CA-CB-CG	5.42	127.76	115.30
1	G	4880	MET	CG-SD-CE	5.42	108.87	100.20
1	A	4112	LEU	CB-CG-CD1	5.41	120.20	111.00
1	G	1548	LEU	CB-CG-CD2	5.41	120.19	111.00
1	E	2116	LEU	CB-CG-CD2	-5.41	101.81	111.00
1	C	3773	ARG	NE-CZ-NH2	5.40	123.00	120.30
1	A	1648	MET	CG-SD-CE	-5.40	91.56	100.20
1	G	1128	ARG	NE-CZ-NH1	5.40	123.00	120.30
1	G	4563	ARG	NE-CZ-NH2	5.40	123.00	120.30
1	C	118	LEU	CB-CG-CD2	-5.39	101.83	111.00
1	A	2115	GLU	N-CA-CB	-5.39	100.90	110.60
1	G	2063	LEU	CB-CG-CD1	-5.39	101.84	111.00
1	E	4632	LEU	CA-CB-CG	5.38	127.67	115.30
1	A	1128	ARG	NE-CZ-NH1	5.38	122.99	120.30
1	C	4215	ARG	NE-CZ-NH1	5.38	122.99	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	4980	LEU	CD1-CG-CD2	5.38	126.64	110.50
1	E	802	PHE	CB-CG-CD1	-5.38	117.04	120.80
1	E	4679	ARG	NE-CZ-NH1	5.38	122.99	120.30
1	E	4822	THR	CA-CB-CG2	-5.37	104.88	112.40
1	G	4703	ARG	NE-CZ-NH1	5.37	122.99	120.30
1	C	1836	PHE	CB-CG-CD1	-5.37	117.04	120.80
1	C	2163	ARG	NE-CZ-NH2	-5.36	117.62	120.30
1	G	632	LEU	CB-CG-CD1	5.36	120.11	111.00
1	A	4649	LEU	CB-CG-CD2	-5.36	101.90	111.00
1	E	1842	LEU	CB-CG-CD1	5.35	120.10	111.00
1	A	632	LEU	CB-CG-CD1	5.35	120.10	111.00
1	E	4649	LEU	CB-CG-CD2	-5.35	101.91	111.00
1	A	118	LEU	CB-CG-CD2	-5.35	101.91	111.00
1	G	22	LEU	CB-CG-CD1	-5.34	101.92	111.00
1	A	4980	LEU	CD1-CG-CD2	5.34	126.52	110.50
1	A	1836	PHE	CB-CG-CD1	-5.34	117.06	120.80
1	A	2454	ARG	NE-CZ-NH1	5.34	122.97	120.30
1	C	1842	LEU	CB-CG-CD1	5.34	120.07	111.00
1	E	2115	GLU	N-CA-CB	-5.33	101.00	110.60
1	E	4980	LEU	CD1-CG-CD2	5.33	126.49	110.50
1	G	4951	LYS	CD-CE-NZ	5.32	123.94	111.70
1	C	2115	GLU	N-CA-CB	-5.32	101.03	110.60
2	F	32	ASP	CB-CG-OD1	5.32	123.08	118.30
1	E	2497	ASP	CB-CG-OD2	-5.31	113.52	118.30
2	B	32	ASP	CB-CG-OD1	5.30	123.07	118.30
1	G	2115	GLU	N-CA-CB	-5.30	101.05	110.60
1	A	2163	ARG	NE-CZ-NH2	-5.30	117.65	120.30
1	C	2616	PRO	N-CA-CB	5.30	109.66	103.30
1	E	1548	LEU	CB-CG-CD2	5.30	120.01	111.00
1	E	4814	LEU	CB-CG-CD1	5.30	120.01	111.00
1	E	1212	ARG	NE-CZ-NH2	-5.30	117.65	120.30
1	A	1259	ARG	NE-CZ-NH2	-5.29	117.65	120.30
1	E	4844	LEU	CA-CB-CG	5.29	127.47	115.30
1	A	1842	LEU	CB-CG-CD1	5.29	119.99	111.00
1	C	4885	PHE	CB-CG-CD1	-5.29	117.10	120.80
1	G	4909	TYR	CE1-CZ-OH	5.29	134.38	120.10
1	A	2616	PRO	N-CA-CB	5.29	109.64	103.30
1	C	1548	LEU	CB-CG-CD2	5.28	119.97	111.00
1	A	1548	LEU	CB-CG-CD2	5.27	119.96	111.00
1	E	2063	LEU	CB-CG-CD1	-5.27	102.04	111.00
1	G	802	PHE	CB-CG-CD1	-5.27	117.11	120.80
1	G	2616	PRO	N-CA-CB	5.26	109.62	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	746	CYS	CA-CB-SG	-5.26	104.53	114.00
1	E	4991	PHE	CB-CG-CD1	-5.26	117.12	120.80
1	E	1128	ARG	NE-CZ-NH1	5.26	122.93	120.30
1	A	2926	LEU	O-C-N	5.24	131.08	122.70
1	C	1648	MET	CG-SD-CE	-5.24	91.82	100.20
1	G	1648	MET	CG-SD-CE	-5.24	91.82	100.20
1	C	802	PHE	CB-CG-CD1	-5.23	117.14	120.80
1	G	2094	LEU	CB-CG-CD1	-5.23	102.11	111.00
1	G	1842	LEU	CB-CG-CD1	5.23	119.89	111.00
1	G	4159	ARG	NE-CZ-NH1	5.23	122.92	120.30
1	C	3841	VAL	CG1-CB-CG2	5.23	119.27	110.90
1	C	1259	ARG	NE-CZ-NH2	-5.22	117.69	120.30
1	E	4048	LEU	CB-CG-CD1	-5.21	102.15	111.00
1	C	22	LEU	CB-CG-CD1	-5.21	102.15	111.00
1	G	2163	ARG	NE-CZ-NH2	-5.21	117.70	120.30
1	G	4581	LYS	CD-CE-NZ	5.20	123.67	111.70
1	E	2616	PRO	N-CA-CB	5.20	109.54	103.30
1	C	4800	LEU	CB-CG-CD1	5.20	119.83	111.00
1	E	4796	MET	CG-SD-CE	5.19	108.51	100.20
1	E	3751	VAL	CB-CA-C	-5.19	101.54	111.40
1	E	1259	ARG	NE-CZ-NH2	-5.19	117.71	120.30
1	G	746	CYS	CA-CB-SG	-5.18	104.67	114.00
1	E	1648	MET	CG-SD-CE	-5.17	91.92	100.20
1	A	3780	LEU	CB-CG-CD1	5.17	119.79	111.00
1	G	2712	PRO	N-CA-CB	5.17	109.50	103.30
1	C	4048	LEU	CB-CG-CD1	-5.16	102.22	111.00
1	C	746	CYS	CA-CB-SG	-5.16	104.71	114.00
2	D	32	ASP	CB-CG-OD2	-5.16	113.66	118.30
1	E	3841	VAL	CG1-CB-CG2	5.16	119.16	110.90
1	G	1259	ARG	NE-CZ-NH2	-5.16	117.72	120.30
1	E	4800	LEU	CB-CG-CD1	5.16	119.76	111.00
1	E	773	LEU	CA-CB-CG	5.15	127.16	115.30
1	G	1865	MET	CG-SD-CE	-5.15	91.96	100.20
1	G	4215	ARG	CD-NE-CZ	5.15	130.81	123.60
1	A	3932	ASP	CB-CG-OD2	5.15	122.93	118.30
1	A	3841	VAL	CG1-CB-CG2	5.15	119.13	110.90
1	C	3787	LYS	CD-CE-NZ	5.14	123.53	111.70
1	A	746	CYS	CA-CB-SG	-5.14	104.75	114.00
1	A	2497	ASP	CB-CG-OD2	-5.13	113.68	118.30
1	C	3751	VAL	CB-CA-C	-5.13	101.64	111.40
1	C	773	LEU	CA-CB-CG	5.13	127.10	115.30
1	A	3751	VAL	CB-CA-C	-5.13	101.66	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	1836	PHE	CB-CG-CD1	-5.13	117.21	120.80
1	C	3729	MET	CB-CG-SD	-5.12	97.02	112.40
1	E	3780	LEU	CB-CG-CD1	5.12	119.71	111.00
1	E	3926	LEU	CB-CG-CD1	5.12	119.71	111.00
1	G	3519	PRO	N-CA-CB	5.12	109.44	103.30
1	C	3780	LEU	CB-CG-CD1	5.11	119.69	111.00
1	A	2244	ARG	NE-CZ-NH1	-5.11	117.75	120.30
1	A	3729	MET	CB-CG-SD	-5.10	97.09	112.40
2	D	32	ASP	CB-CG-OD1	5.10	122.89	118.30
1	E	4769	MET	CG-SD-CE	5.10	108.36	100.20
1	A	4048	LEU	CB-CG-CD1	-5.10	102.33	111.00
1	G	4643	LEU	CA-CB-CG	5.09	127.02	115.30
1	A	4769	MET	CG-SD-CE	5.09	108.35	100.20
1	A	2920	ARG	NE-CZ-NH1	5.09	122.85	120.30
1	A	2063	LEU	CB-CG-CD1	-5.09	102.35	111.00
1	C	1589	PRO	N-CA-C	5.09	125.32	112.10
1	E	4668	LEU	CB-CG-CD1	-5.08	102.36	111.00
1	A	1589	PRO	N-CA-C	5.08	125.31	112.10
1	A	2336	ARG	NE-CZ-NH2	5.08	122.84	120.30
1	E	1600	LEU	CB-CG-CD1	5.08	119.63	111.00
1	E	4215	ARG	CD-NE-CZ	5.08	130.71	123.60
1	A	4632	LEU	CA-CB-CG	5.08	126.97	115.30
1	E	1589	PRO	N-CA-C	5.07	125.29	112.10
1	C	3926	LEU	CB-CG-CD1	5.07	119.62	111.00
1	C	1106	ARG	NE-CZ-NH2	-5.07	117.77	120.30
1	G	4905	ALA	N-CA-CB	5.07	117.19	110.10
1	C	1976	ARG	CG-CD-NE	5.07	122.44	111.80
1	C	2063	LEU	CB-CG-CD1	-5.06	102.39	111.00
1	C	842	PRO	N-CA-C	5.06	125.26	112.10
1	G	1589	PRO	N-CA-C	5.06	125.27	112.10
1	G	2454	ARG	NE-CZ-NH1	5.06	122.83	120.30
1	C	2920	ARG	NE-CZ-NH1	5.06	122.83	120.30
1	G	1931	LEU	CB-CG-CD1	5.06	119.60	111.00
2	B	32	ASP	CB-CG-OD2	-5.05	113.75	118.30
1	E	1836	PHE	CB-CG-CD1	-5.05	117.26	120.80
2	F	32	ASP	CB-CG-OD2	-5.05	113.75	118.30
1	G	842	PRO	N-CA-C	5.05	125.23	112.10
1	C	773	LEU	CB-CG-CD2	5.05	119.58	111.00
1	A	3926	LEU	CB-CG-CD1	5.04	119.57	111.00
1	G	3787	LYS	CD-CE-NZ	5.03	123.28	111.70
1	G	3751	VAL	CB-CA-C	-5.03	101.84	111.40
1	E	2456	ILE	CG1-CB-CG2	-5.03	100.33	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	3519	PRO	N-CA-CB	5.03	109.33	103.30
1	E	842	PRO	N-CA-C	5.03	125.17	112.10
1	E	2555	CYS	CA-CB-SG	5.03	123.05	114.00
1	E	3729	MET	CB-CG-SD	-5.03	97.33	112.40
1	G	2497	ASP	CB-CG-OD2	-5.03	113.78	118.30
1	E	4231	MET	CB-CG-SD	5.02	127.47	112.40
1	A	4668	LEU	CB-CG-CD1	-5.01	102.48	111.00
1	C	3519	PRO	N-CA-CB	5.01	109.31	103.30
1	C	4769	MET	CG-SD-CE	5.01	108.22	100.20
1	C	4215	ARG	CD-NE-CZ	5.01	130.61	123.60
1	E	4909	TYR	CE1-CZ-OH	5.01	133.63	120.10
1	A	773	LEU	CB-CG-CD2	5.00	119.51	111.00
1	C	4668	LEU	CB-CG-CD1	-5.00	102.49	111.00

There are no chirality outliers.

All (141) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1100	MET	Peptide
1	A	1251	GLU	Peptide
1	A	1253	PRO	Peptide
1	A	1464	PHE	Peptide
1	A	1588	ALA	Peptide,Mainchain
1	A	1748	PHE	Peptide
1	A	1828	ASP	Peptide,Mainchain
1	A	1854	PHE	Peptide,Mainchain
1	A	1855	GLY	Peptide
1	A	1856	ASP	Peptide,Mainchain
1	A	1867	GLU	Peptide,Mainchain
1	A	1932	PRO	Peptide
1	A	2567	PRO	Peptide
1	A	31	GLU	Peptide,Mainchain
1	A	329	ARG	Peptide,Mainchain
1	A	4819	GLY	Peptide,Mainchain
1	A	4903	ASP	Peptide,Mainchain
1	A	4904	PRO	Peptide,Mainchain
1	A	4905	ALA	Peptide,Mainchain
1	A	734	GLY	Peptide
1	A	841	GLY	Peptide,Mainchain
1	A	894	GLY	Peptide,Mainchain
1	A	970	LEU	Peptide
1	C	1100	MET	Peptide

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Mol	Chain	Res	Type	Group
1	C	1251	GLU	Peptide
1	C	1253	PRO	Peptide
1	C	1464	PHE	Peptide
1	C	1588	ALA	Peptide,Mainchain
1	C	1748	PHE	Peptide
1	C	1828	ASP	Peptide,Mainchain
1	C	1854	PHE	Peptide,Mainchain
1	C	1855	GLY	Peptide
1	C	1856	ASP	Peptide,Mainchain
1	C	1867	GLU	Peptide,Mainchain
1	C	1932	PRO	Peptide
1	C	2567	PRO	Peptide
1	C	31	GLU	Peptide,Mainchain
1	C	329	ARG	Peptide
1	C	4819	GLY	Peptide,Mainchain
1	C	4903	ASP	Peptide,Mainchain
1	C	4904	PRO	Peptide,Mainchain
1	C	4905	ALA	Peptide,Mainchain
1	C	734	GLY	Peptide
1	C	841	GLY	Peptide,Mainchain
1	C	894	GLY	Peptide,Mainchain
1	C	970	LEU	Peptide
1	E	1100	MET	Peptide
1	E	1251	GLU	Peptide
1	E	1253	PRO	Peptide
1	E	1464	PHE	Peptide
1	E	1588	ALA	Peptide,Mainchain
1	E	1748	PHE	Peptide
1	E	1828	ASP	Peptide,Mainchain
1	E	1854	PHE	Peptide,Mainchain
1	E	1855	GLY	Peptide
1	E	1856	ASP	Peptide,Mainchain
1	E	1867	GLU	Peptide,Mainchain
1	E	1932	PRO	Peptide
1	E	2567	PRO	Peptide
1	E	31	GLU	Peptide,Mainchain
1	E	329	ARG	Peptide,Mainchain
1	E	4819	GLY	Peptide,Mainchain
1	E	4903	ASP	Peptide,Mainchain
1	E	4904	PRO	Peptide,Mainchain
1	E	4905	ALA	Peptide,Mainchain
1	E	734	GLY	Peptide

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Mol	Chain	Res	Type	Group
1	E	841	GLY	Peptide,Mainchain
1	E	894	GLY	Peptide,Mainchain
1	E	970	LEU	Peptide
1	G	1100	MET	Peptide
1	G	1253	PRO	Peptide
1	G	1464	PHE	Peptide
1	G	1588	ALA	Peptide,Mainchain
1	G	1748	PHE	Peptide
1	G	1828	ASP	Peptide,Mainchain
1	G	1854	PHE	Peptide,Mainchain
1	G	1855	GLY	Peptide
1	G	1856	ASP	Peptide,Mainchain
1	G	1867	GLU	Peptide,Mainchain
1	G	1932	PRO	Peptide
1	G	31	GLU	Peptide,Mainchain
1	G	329	ARG	Peptide,Mainchain
1	G	4819	GLY	Peptide,Mainchain
1	G	4903	ASP	Peptide,Mainchain
1	G	4904	PRO	Peptide,Mainchain
1	G	4905	ALA	Peptide,Mainchain
1	G	734	GLY	Peptide
1	G	841	GLY	Peptide,Mainchain
1	G	894	GLY	Peptide,Mainchain
1	G	970	LEU	Peptide

## 5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	26843	0	24428	1190	0
1	C	26843	0	24428	1200	0
1	E	26843	0	24428	1194	0
1	G	26843	0	24427	1209	0
2	B	832	0	831	58	0
2	D	832	0	831	54	0
2	F	832	0	831	58	0
2	H	832	0	831	58	0
3	A	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	C	1	0	0	0	0
3	E	1	0	0	0	0
3	G	1	0	0	0	0
All	All	110704	0	101035	4733	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 22.

All (4733) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4880:MET:HA	1:G:4578:LEU:HD11	1.26	1.17
1:A:4578:LEU:HD11	1:C:4880:MET:HA	1.18	1.17
1:E:4578:LEU:HD11	1:G:4880:MET:HA	1.25	1.16
1:C:4578:LEU:HD11	1:E:4880:MET:HA	1.17	1.10
1:A:4822:THR:HG22	1:C:4839:MET:SD	1.93	1.08
1:C:4822:THR:HG22	1:E:4839:MET:SD	1.95	1.05
1:A:4931:ILE:HD11	1:G:4940:PHE:CE1	1.96	1.00
1:A:4892:ARG:CZ	1:C:4896:GLY:HA3	1.95	0.97
1:E:1835:GLU:HG3	1:E:1932:PRO:HG2	1.46	0.97
1:C:1835:GLU:HG3	1:C:1932:PRO:HG2	1.45	0.96
1:A:1783:VAL:HG12	2:B:55:VAL:HA	1.47	0.95
1:A:1808:ARG:NH1	1:A:1858:ASP:OD2	2.00	0.95
1:E:626:LEU:O	1:E:629:ARG:NH1	1.99	0.95
1:C:626:LEU:O	1:C:629:ARG:NH1	1.99	0.95
1:E:1808:ARG:NH1	1:E:1858:ASP:OD2	2.00	0.95
1:A:4839:MET:HE3	1:G:4822:THR:O	1.65	0.95
1:G:1808:ARG:NH1	1:G:1858:ASP:OD2	2.00	0.95
1:A:1835:GLU:HG3	1:A:1932:PRO:HG2	1.46	0.94
1:G:1783:VAL:HG12	2:H:55:VAL:HA	1.47	0.94
1:C:4822:THR:CG2	1:E:4839:MET:SD	2.55	0.94
1:G:4192:ARG:HH11	1:G:5028:PHE:HB3	1.33	0.94
1:A:3970:GLN:NE2	1:A:5003:HIS:O	2.01	0.93
1:G:1835:GLU:HG3	1:G:1932:PRO:HG2	1.45	0.93
1:A:626:LEU:O	1:A:629:ARG:NH1	1.99	0.93
1:A:4921:PHE:CZ	1:G:4892:ARG:HA	2.03	0.93
1:C:1294:PRO:HD2	1:C:1584:ARG:HH11	1.34	0.93
1:C:1808:ARG:NH1	1:C:1858:ASP:OD2	2.00	0.93
1:A:1294:PRO:HD2	1:A:1584:ARG:HH11	1.34	0.93
1:C:3970:GLN:NE2	1:C:5003:HIS:O	2.01	0.93
1:G:1294:PRO:HD2	1:G:1584:ARG:HH11	1.34	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4822:THR:CG2	1:C:4839:MET:SD	2.56	0.93
1:C:1783:VAL:HG12	2:D:55:VAL:HA	1.52	0.92
1:E:3970:GLN:NE2	1:E:5003:HIS:O	2.02	0.92
1:E:1294:PRO:HD2	1:E:1584:ARG:HH11	1.34	0.92
1:G:626:LEU:O	1:G:629:ARG:NH1	2.01	0.91
1:C:4892:ARG:CZ	1:E:4896:GLY:HA3	2.01	0.90
1:E:1783:VAL:HG12	2:F:55:VAL:HA	1.54	0.90
1:C:4192:ARG:HH11	1:C:5028:PHE:HB3	1.37	0.89
1:A:4192:ARG:HH11	1:A:5028:PHE:HB3	1.36	0.89
1:C:4892:ARG:HA	1:E:4921:PHE:CZ	2.06	0.89
1:A:4896:GLY:HA3	1:G:4892:ARG:CZ	2.03	0.89
1:A:4839:MET:SD	1:G:4822:THR:HG22	2.12	0.89
1:E:4192:ARG:HH11	1:E:5028:PHE:HB3	1.37	0.88
1:A:2456:ILE:HD11	1:C:178:ARG:HH12	1.38	0.88
1:A:2059:LEU:HD22	1:A:2062:ARG:HH12	1.38	0.88
2:D:23:VAL:HG22	2:D:47:LYS:HG2	1.56	0.88
2:F:23:VAL:HG22	2:F:47:LYS:HG2	1.56	0.88
1:A:1436:SER:HA	1:A:1515:VAL:O	1.75	0.87
1:E:4826:ILE:HD11	1:G:4839:MET:SD	2.15	0.87
1:C:2059:LEU:HD22	1:C:2062:ARG:HH12	1.38	0.87
1:A:1439:VAL:N	1:A:1513:ASP:O	2.07	0.87
1:E:2173:GLN:HG2	1:E:2174:GLU:H	1.40	0.87
1:G:2173:GLN:HG2	1:G:2174:GLU:H	1.40	0.87
1:A:4839:MET:CE	1:G:4822:THR:O	2.23	0.87
2:B:23:VAL:HG22	2:B:47:LYS:HG2	1.56	0.87
1:C:4578:LEU:HD11	1:E:4880:MET:CA	2.05	0.86
1:C:2173:GLN:HG2	1:C:2174:GLU:H	1.40	0.86
1:A:2173:GLN:HG2	1:A:2174:GLU:H	1.40	0.86
1:E:2456:ILE:HD11	1:G:178:ARG:HH12	1.39	0.86
1:A:178:ARG:HH12	1:G:2456:ILE:HD11	1.40	0.86
1:C:2456:ILE:HD11	1:E:178:ARG:HH12	1.41	0.86
1:E:674:PHE:HZ	2:F:71:ARG:CZ	1.88	0.86
1:A:289:ARG:NH1	1:A:303:ASP:OD1	2.09	0.85
1:A:1555:LEU:HD12	1:A:1556:PRO:HD2	1.58	0.85
1:C:2922:LYS:HA	1:C:2925:GLU:CG	2.05	0.85
1:A:2459:SER:O	1:C:131:LEU:HD23	1.77	0.85
1:A:2922:LYS:HA	1:A:2925:GLU:CG	2.06	0.85
1:E:2059:LEU:HD22	1:E:2062:ARG:HH12	1.38	0.85
1:G:2059:LEU:HD22	1:G:2062:ARG:HH12	1.38	0.85
1:G:4708:THR:HG22	1:G:4710:SER:H	1.41	0.85
1:C:674:PHE:HZ	2:D:71:ARG:CZ	1.90	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3772:THR:OG1	1:C:3773:ARG:NH1	2.10	0.85
1:C:1555:LEU:HD12	1:C:1556:PRO:HD2	1.59	0.85
1:C:289:ARG:NH1	1:C:303:ASP:OD1	2.10	0.85
1:A:3772:THR:OG1	1:A:3773:ARG:NH1	2.10	0.84
1:A:4839:MET:HE3	1:G:4826:ILE:HG13	1.59	0.84
1:A:4839:MET:SD	1:G:4822:THR:CG2	2.65	0.84
1:A:4892:ARG:HA	1:C:4921:PHE:CZ	2.11	0.84
1:A:131:LEU:HD23	1:G:2459:SER:O	1.77	0.84
1:C:2922:LYS:O	1:C:2925:GLU:HB2	1.77	0.84
1:E:289:ARG:NH1	1:E:303:ASP:OD1	2.10	0.84
1:E:674:PHE:CZ	2:F:71:ARG:CZ	2.60	0.84
1:G:289:ARG:NH1	1:G:303:ASP:OD1	2.10	0.84
1:G:1555:LEU:HD12	1:G:1556:PRO:HD2	1.59	0.84
1:G:4780:PHE:HA	1:G:4783:ILE:HD12	1.59	0.84
1:C:4708:THR:HG22	1:C:4710:SER:H	1.41	0.84
1:E:3772:THR:OG1	1:E:3773:ARG:NH1	2.10	0.84
1:C:4172:GLU:HG2	1:C:4175:ARG:HH12	1.43	0.83
1:C:2234:ARG:HH12	1:C:2271:THR:N	1.76	0.83
1:E:4708:THR:HG22	1:E:4710:SER:H	1.41	0.83
1:A:4708:THR:HG22	1:A:4710:SER:H	1.41	0.83
1:E:1555:LEU:HD12	1:E:1556:PRO:HD2	1.59	0.83
1:E:2234:ARG:HH12	1:E:2271:THR:N	1.76	0.83
1:E:2459:SER:O	1:G:131:LEU:HD23	1.79	0.82
1:A:2234:ARG:HH12	1:A:2271:THR:N	1.76	0.82
1:A:674:PHE:HZ	2:B:71:ARG:CZ	1.91	0.82
1:C:674:PHE:CZ	2:D:71:ARG:CZ	2.62	0.82
1:C:2921:GLU:O	1:C:2925:GLU:HG2	1.79	0.82
1:C:4578:LEU:CD1	1:E:4880:MET:HA	2.06	0.82
1:A:2922:LYS:O	1:A:2925:GLU:HB2	1.80	0.82
1:G:2234:ARG:HH12	1:G:2271:THR:N	1.76	0.82
1:G:4708:THR:HG21	1:G:4775:TYR:HB2	1.61	0.82
1:G:4033:GLY:O	1:G:4189:ARG:NH2	2.12	0.82
1:E:495:ASN:ND2	1:E:555:GLU:OE2	2.13	0.81
1:C:4940:PHE:CE1	1:E:4931:ILE:HD11	2.16	0.81
1:G:495:ASN:ND2	1:G:555:GLU:OE2	2.13	0.81
1:C:2459:SER:O	1:E:131:LEU:HD23	1.81	0.81
1:A:4578:LEU:CD1	1:C:4880:MET:HA	2.05	0.81
1:E:702:TRP:HD1	2:F:34:LYS:HZ1	1.27	0.80
1:E:3750:GLU:HA	1:E:3753:PHE:HB3	1.62	0.80
1:C:3750:GLU:HA	1:C:3753:PHE:HB3	1.62	0.80
1:A:674:PHE:CZ	2:B:71:ARG:CZ	2.64	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4033:GLY:O	1:A:4189:ARG:NH2	2.15	0.80
1:A:4578:LEU:HD11	1:C:4880:MET:CA	2.08	0.80
1:G:4957:LYS:HA	1:G:4964:GLY:HA2	1.62	0.80
1:C:102:LEU:HB2	1:C:105:HIS:CD2	2.17	0.80
1:E:102:LEU:HB2	1:E:105:HIS:CD2	2.17	0.79
1:E:4033:GLY:O	1:E:4189:ARG:NH2	2.15	0.79
1:C:495:ASN:ND2	1:C:555:GLU:OE2	2.14	0.79
1:A:3750:GLU:HA	1:A:3753:PHE:HB3	1.63	0.79
1:G:1032:LYS:HB3	1:G:1036:ARG:HH12	1.48	0.79
1:A:2921:GLU:O	1:A:2925:GLU:HG2	1.82	0.79
1:A:495:ASN:ND2	1:A:555:GLU:OE2	2.14	0.79
1:A:4172:GLU:HG2	1:A:4175:ARG:HH12	1.46	0.79
1:E:4172:GLU:HG2	1:E:4175:ARG:HH12	1.47	0.79
1:G:4033:GLY:HA2	1:G:4189:ARG:HH12	1.46	0.79
1:E:4578:LEU:CD1	1:G:4880:MET:HA	2.08	0.79
1:G:1457:TYR:OH	1:G:1459:GLN:NE2	2.15	0.79
1:A:174:VAL:O	1:G:2452:ARG:NH2	2.16	0.78
1:A:1032:LYS:HB3	1:A:1036:ARG:HH12	1.47	0.78
1:C:4033:GLY:O	1:C:4189:ARG:NH2	2.15	0.78
1:A:102:LEU:HB2	1:A:105:HIS:CD2	2.18	0.78
1:E:3677:LEU:HB2	1:E:3698:LEU:HD12	1.65	0.78
1:G:102:LEU:HB2	1:G:105:HIS:CD2	2.17	0.78
1:G:3772:THR:OG1	1:G:3773:ARG:NH1	2.16	0.78
1:E:675:LEU:HD23	1:E:676:THR:HG23	1.66	0.78
1:A:2463:LEU:N	1:A:2510:TYR:HH	1.81	0.78
1:E:4578:LEU:HD11	1:G:4880:MET:CA	2.10	0.78
1:G:4971:THR:HG23	1:G:4974:GLY:HA3	1.66	0.78
1:A:4880:MET:CA	1:G:4578:LEU:HD11	2.12	0.78
1:G:830:ARG:HD3	1:G:1616:GLU:OE2	1.83	0.78
1:E:830:ARG:HD3	1:E:1616:GLU:OE2	1.84	0.78
1:E:2463:LEU:N	1:E:2510:TYR:HH	1.81	0.78
1:C:2463:LEU:N	1:C:2510:TYR:HH	1.82	0.78
1:E:1032:LYS:HB3	1:E:1036:ARG:HH12	1.48	0.78
1:A:830:ARG:HD3	1:A:1616:GLU:OE2	1.83	0.77
1:C:675:LEU:HD23	1:C:676:THR:HG23	1.66	0.77
1:C:1294:PRO:HD2	1:C:1584:ARG:NH1	1.99	0.77
1:C:3677:LEU:HB2	1:C:3698:LEU:HD12	1.66	0.77
1:E:4780:PHE:HA	1:E:4783:ILE:HD12	1.66	0.77
1:G:1294:PRO:HD2	1:G:1584:ARG:NH1	1.99	0.77
1:G:675:LEU:HD23	1:G:676:THR:HG23	1.66	0.77
1:A:4957:LYS:HA	1:A:4964:GLY:HA2	1.67	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1294:PRO:HD2	1:E:1584:ARG:NH1	2.00	0.77
1:C:4780:PHE:HA	1:C:4783:ILE:HD12	1.67	0.77
1:G:3970:GLN:NE2	1:G:5003:HIS:O	2.17	0.77
1:A:830:ARG:NH1	1:A:1613:LEU:O	2.18	0.76
1:C:830:ARG:NH1	1:C:1613:LEU:O	2.18	0.76
1:A:1294:PRO:HD2	1:A:1584:ARG:NH1	1.99	0.76
1:C:4957:LYS:HA	1:C:4964:GLY:HA2	1.66	0.76
1:E:4889:VAL:O	1:E:4893:ALA:N	2.18	0.76
1:G:830:ARG:NH1	1:G:1613:LEU:O	2.18	0.76
1:C:1032:LYS:HB3	1:C:1036:ARG:HH12	1.48	0.76
1:C:830:ARG:HD3	1:C:1616:GLU:OE2	1.84	0.76
1:G:1078:GLU:HA	1:G:1237:TRP:HZ3	1.50	0.76
1:G:2463:LEU:N	1:G:2510:TYR:HH	1.83	0.76
1:A:355:LEU:HD22	1:A:379:HIS:HA	1.65	0.76
1:A:675:LEU:HD23	1:A:676:THR:HG23	1.66	0.76
1:A:1078:GLU:HA	1:A:1237:TRP:HZ3	1.50	0.76
1:G:1933:GLU:OE2	1:G:2111:VAL:HG12	1.84	0.76
1:E:1078:GLU:HA	1:E:1237:TRP:HZ3	1.50	0.76
1:E:4957:LYS:HA	1:E:4964:GLY:HA2	1.67	0.76
1:A:3677:LEU:HB2	1:A:3698:LEU:HD12	1.66	0.76
1:G:674:PHE:CZ	2:H:71:ARG:CZ	2.69	0.76
1:A:4780:PHE:HA	1:A:4783:ILE:HD12	1.68	0.76
1:A:4880:MET:HA	1:G:4578:LEU:CD1	2.13	0.76
1:G:2924:GLN:HB3	1:G:2928:LYS:HE2	1.68	0.76
1:A:717:ASP:HB2	2:B:7:ILE:HG23	1.69	0.75
1:E:830:ARG:NH1	1:E:1613:LEU:O	2.19	0.75
1:C:717:ASP:HB2	2:D:7:ILE:HG23	1.68	0.75
1:C:1933:GLU:OE2	1:C:2111:VAL:HG12	1.86	0.75
1:A:1933:GLU:OE2	1:A:2111:VAL:HG12	1.86	0.75
1:C:1078:GLU:HA	1:C:1237:TRP:HZ3	1.50	0.75
1:E:1933:GLU:OE2	1:E:2111:VAL:HG12	1.86	0.75
1:G:355:LEU:HD22	1:G:379:HIS:HA	1.66	0.75
1:C:702:TRP:HD1	2:D:34:LYS:HZ1	1.31	0.75
1:C:1931:LEU:O	1:C:1936:LYS:NZ	2.20	0.75
1:C:355:LEU:HD22	1:C:379:HIS:HA	1.68	0.75
2:F:24:VAL:HG12	2:F:103:LEU:HA	1.69	0.75
1:E:717:ASP:HB2	2:F:7:ILE:HG23	1.69	0.75
1:E:1457:TYR:OH	1:E:1459:GLN:NE2	2.19	0.75
1:E:4892:ARG:CZ	1:G:4896:GLY:HA3	2.17	0.74
1:A:1457:TYR:OH	1:A:1459:GLN:NE2	2.19	0.74
1:A:2456:ILE:HD11	1:C:178:ARG:NH1	2.02	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3882:GLN:HB2	1:C:3957:VAL:HG22	1.70	0.74
1:A:1205:GLY:HA3	1:A:1227:ALA:HB3	1.69	0.74
2:H:23:VAL:HG22	2:H:47:LYS:HG2	1.69	0.74
1:A:4729:GLY:HA2	1:A:4737:ILE:HG13	1.69	0.74
1:E:42:PHE:HB3	1:E:447:ASP:OD2	1.87	0.74
1:E:355:LEU:HD22	1:E:379:HIS:HA	1.68	0.74
1:G:20:VAL:HG12	1:G:204:PRO:HA	1.70	0.74
1:A:20:VAL:HG12	1:A:204:PRO:HA	1.70	0.74
1:A:3882:GLN:HB2	1:A:3957:VAL:HG22	1.70	0.74
1:E:20:VAL:HG12	1:E:204:PRO:HA	1.69	0.74
1:E:3882:GLN:HB2	1:E:3957:VAL:HG22	1.70	0.74
1:C:20:VAL:HG12	1:C:204:PRO:HA	1.70	0.74
1:E:2456:ILE:HD11	1:G:178:ARG:NH1	2.03	0.73
1:E:3756:LYS:NZ	1:E:4999:ASP:OD1	2.20	0.73
1:G:674:PHE:HZ	2:H:71:ARG:CZ	2.02	0.73
1:G:4138:ASP:O	1:G:4142:ASN:ND2	2.21	0.73
1:A:42:PHE:HB3	1:A:447:ASP:OD2	1.87	0.73
1:A:1141:ARG:HH12	1:A:1169:LEU:HD11	1.54	0.73
1:A:1708:ARG:NH2	1:A:1837:GLN:HA	2.04	0.73
2:D:24:VAL:HG12	2:D:103:LEU:HA	1.69	0.73
1:A:4207:MET:HG2	1:A:4208:PRO:HD3	1.71	0.73
1:E:1931:LEU:O	1:E:1936:LYS:NZ	2.19	0.73
1:A:4940:PHE:CE1	1:C:4931:ILE:HD11	2.23	0.73
2:B:24:VAL:HG12	2:B:103:LEU:HA	1.69	0.73
1:C:2456:ILE:HD11	1:E:178:ARG:NH1	2.04	0.73
1:E:1669:LEU:O	1:E:1673:VAL:HG23	1.88	0.73
1:A:2452:ARG:NH2	1:C:174:VAL:O	2.20	0.73
1:C:2452:ARG:NH2	1:E:174:VAL:O	2.21	0.73
1:E:1205:GLY:HA3	1:E:1227:ALA:HB3	1.71	0.73
1:E:4207:MET:HG2	1:E:4208:PRO:HD3	1.71	0.73
1:G:42:PHE:HB3	1:G:447:ASP:OD2	1.88	0.73
1:A:1439:VAL:HB	1:A:1513:ASP:HB2	1.69	0.73
1:C:42:PHE:HB3	1:C:447:ASP:OD2	1.87	0.73
1:E:1075:PHE:HB2	1:E:1192:CYS:HB2	1.71	0.73
1:G:1075:PHE:HB2	1:G:1192:CYS:HB2	1.71	0.73
1:A:4876:CYS:O	1:A:4881:THR:OG1	2.07	0.73
1:C:281:ARG:HG2	1:C:312:THR:HG21	1.71	0.73
1:C:1669:LEU:O	1:C:1673:VAL:HG23	1.89	0.73
1:A:818:ARG:HG2	1:A:1028:ASP:HA	1.71	0.72
1:A:1075:PHE:HB2	1:A:1192:CYS:HB2	1.71	0.72
1:E:4727:LYS:HZ1	1:E:4728:HIS:CE1	2.06	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4036:VAL:O	1:G:4038:GLY:N	2.22	0.72
1:G:4960:ILE:HD11	1:G:4985:LEU:HB2	1.71	0.72
1:A:683:ARG:HH12	1:A:725:HIS:CD2	2.07	0.72
1:C:818:ARG:HG2	1:C:1028:ASP:HA	1.71	0.72
1:C:4876:CYS:O	1:C:4881:THR:OG1	2.06	0.72
1:G:1669:LEU:O	1:G:1673:VAL:HG23	1.89	0.72
1:G:4961:CYS:SG	1:G:4978:HIS:NE2	2.63	0.72
1:A:674:PHE:HB3	2:B:40:ARG:NH1	2.04	0.72
1:C:1087:ARG:HB3	1:C:1223:PHE:CD1	2.25	0.72
1:E:1087:ARG:HB3	1:E:1223:PHE:CD1	2.24	0.72
1:C:1708:ARG:NH2	1:C:1837:GLN:HA	2.04	0.72
1:E:818:ARG:HG2	1:E:1028:ASP:HA	1.72	0.72
1:E:1708:ARG:NH2	1:E:1837:GLN:HA	2.04	0.72
1:E:2452:ARG:NH2	1:G:174:VAL:O	2.23	0.72
1:E:4729:GLY:HA2	1:E:4737:ILE:HG13	1.69	0.72
1:G:1205:GLY:HA3	1:G:1227:ALA:HB3	1.72	0.72
1:A:178:ARG:NH1	1:G:2456:ILE:HD11	2.03	0.72
1:A:1669:LEU:O	1:A:1673:VAL:HG23	1.89	0.72
1:C:1205:GLY:HA3	1:C:1227:ALA:HB3	1.70	0.72
1:E:674:PHE:HB3	2:F:40:ARG:NH1	2.03	0.72
1:E:4876:CYS:O	1:E:4881:THR:OG1	2.05	0.72
1:G:683:ARG:HH12	1:G:725:HIS:CD2	2.08	0.72
1:A:1087:ARG:HB3	1:A:1223:PHE:CD1	2.25	0.72
1:G:818:ARG:HG2	1:G:1028:ASP:HA	1.72	0.72
1:G:1708:ARG:NH2	1:G:1837:GLN:HA	2.03	0.72
1:A:1931:LEU:O	1:A:1936:LYS:NZ	2.20	0.72
1:A:1941:ASN:O	1:A:1944:GLU:HG2	1.90	0.72
1:C:1075:PHE:HB2	1:C:1192:CYS:HB2	1.71	0.72
1:C:1783:VAL:CG1	2:D:55:VAL:HA	2.19	0.72
1:C:4729:GLY:HA2	1:C:4737:ILE:HG13	1.70	0.72
1:E:1291:LEU:HD23	1:E:1293:LEU:H	1.55	0.72
1:G:1087:ARG:HB3	1:G:1223:PHE:CD1	2.24	0.72
1:A:281:ARG:HG2	1:A:312:THR:HG21	1.71	0.72
1:A:544:LEU:HD12	1:A:574:VAL:HG13	1.72	0.72
1:G:674:PHE:HB3	2:H:40:ARG:NH1	2.04	0.72
1:G:717:ASP:HB2	2:H:7:ILE:HG23	1.72	0.72
1:A:293:LEU:H	1:A:311:ALA:HB1	1.54	0.71
1:C:674:PHE:HB3	2:D:40:ARG:NH1	2.05	0.71
1:C:2922:LYS:HA	1:C:2925:GLU:HG3	1.70	0.71
1:C:4207:MET:HG2	1:C:4208:PRO:HD3	1.71	0.71
1:E:2921:GLU:O	1:E:2925:GLU:HG2	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4892:ARG:NH1	1:C:4896:GLY:HA3	2.04	0.71
1:A:4033:GLY:HA2	1:A:4189:ARG:HH12	1.55	0.71
1:C:1032:LYS:HB3	1:C:1036:ARG:NH1	2.05	0.71
1:E:1941:ASN:O	1:E:1944:GLU:HG2	1.90	0.71
1:G:298:GLY:HA3	1:G:377:ILE:HB	1.72	0.71
1:G:1141:ARG:HH12	1:G:1169:LEU:HD11	1.55	0.71
1:A:1032:LYS:HB3	1:A:1036:ARG:NH1	2.05	0.71
1:C:683:ARG:HH12	1:C:725:HIS:CD2	2.07	0.71
1:C:2178:MET:O	1:C:2182:ILE:HG12	1.90	0.71
1:C:1439:VAL:HB	1:C:1513:ASP:HB2	1.71	0.71
1:E:683:ARG:HH12	1:E:725:HIS:CD2	2.07	0.71
1:A:702:TRP:HD1	2:B:34:LYS:HZ1	1.30	0.71
1:C:4643:LEU:HA	1:C:4646:LEU:HB2	1.72	0.71
1:G:3750:GLU:HA	1:G:3753:PHE:HB3	1.72	0.71
1:A:4708:THR:HG21	1:A:4775:TYR:HB2	1.72	0.71
1:C:1941:ASN:O	1:C:1944:GLU:HG2	1.91	0.71
1:E:544:LEU:HD12	1:E:574:VAL:HG13	1.72	0.71
1:E:1032:LYS:HB3	1:E:1036:ARG:NH1	2.05	0.71
1:G:293:LEU:H	1:G:311:ALA:HB1	1.54	0.71
1:G:1783:VAL:CG1	2:H:55:VAL:HA	2.20	0.71
1:A:2178:MET:O	1:A:2182:ILE:HG12	1.91	0.71
1:C:3756:LYS:NZ	1:C:4999:ASP:OD1	2.20	0.71
1:C:4708:THR:HG21	1:C:4775:TYR:HB2	1.72	0.71
1:G:1941:ASN:O	1:G:1944:GLU:HG2	1.91	0.71
1:G:4729:GLY:HA2	1:G:4737:ILE:HG13	1.73	0.71
1:G:4913:ARG:HA	1:G:4916:PHE:HB3	1.71	0.71
1:A:2341:VAL:HG22	1:A:2342:ASN:H	1.56	0.71
1:E:298:GLY:HA3	1:E:377:ILE:HB	1.72	0.71
1:E:1783:VAL:CG1	2:F:55:VAL:HA	2.19	0.71
1:E:2341:VAL:HG22	1:E:2342:ASN:H	1.56	0.71
1:G:674:PHE:CD1	2:H:40:ARG:NH1	2.58	0.71
1:G:1078:GLU:HG2	1:G:1080:SER:H	1.55	0.71
1:C:544:LEU:HD12	1:C:574:VAL:HG13	1.72	0.71
1:E:1078:GLU:HG2	1:E:1080:SER:H	1.55	0.71
1:G:670:GLU:HA	1:G:740:PRO:HB3	1.71	0.71
1:E:293:LEU:H	1:E:311:ALA:HB1	1.54	0.70
1:G:281:ARG:HG2	1:G:312:THR:HG21	1.71	0.70
1:A:670:GLU:HA	1:A:740:PRO:HB3	1.72	0.70
1:A:1078:GLU:HG2	1:A:1080:SER:H	1.55	0.70
1:C:293:LEU:H	1:C:311:ALA:HB1	1.54	0.70
1:C:4138:ASP:O	1:C:4142:ASN:ND2	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4643:LEU:HA	1:E:4646:LEU:HB2	1.72	0.70
1:E:4708:THR:HG21	1:E:4775:TYR:HB2	1.72	0.70
1:E:4961:CYS:SG	1:E:4978:HIS:NE2	2.61	0.70
1:G:4983:HIS:O	1:G:4985:LEU:N	2.23	0.70
1:A:4643:LEU:HA	1:A:4646:LEU:HB2	1.73	0.70
1:A:298:GLY:HA3	1:A:377:ILE:HB	1.72	0.70
1:A:4138:ASP:O	1:A:4142:ASN:ND2	2.25	0.70
1:E:281:ARG:HG2	1:E:312:THR:HG21	1.72	0.70
1:A:2293:GLN:HA	1:A:2296:GLU:HG2	1.73	0.70
1:C:298:GLY:HA3	1:C:377:ILE:HB	1.72	0.70
1:C:1663:HIS:O	1:C:1666:THR:OG1	2.08	0.70
1:C:2341:VAL:HG22	1:C:2342:ASN:H	1.57	0.70
1:A:3966:THR:O	1:A:3970:GLN:HB2	1.92	0.70
1:C:1291:LEU:HD23	1:C:1293:LEU:H	1.55	0.70
1:E:702:TRP:CD1	2:F:34:LYS:NZ	2.56	0.70
1:E:737:LEU:HD11	2:F:7:ILE:HG22	1.73	0.70
1:E:2178:MET:O	1:E:2182:ILE:HG12	1.90	0.70
1:A:3970:GLN:HE21	1:A:5004:THR:HA	1.56	0.70
1:C:670:GLU:HA	1:C:740:PRO:HB3	1.72	0.70
1:E:3966:THR:O	1:E:3970:GLN:HB2	1.92	0.70
1:G:544:LEU:HD12	1:G:574:VAL:HG13	1.72	0.70
1:G:1032:LYS:HB3	1:G:1036:ARG:NH1	2.05	0.70
1:C:4033:GLY:HA2	1:C:4189:ARG:HH12	1.57	0.70
1:E:670:GLU:HA	1:E:740:PRO:HB3	1.72	0.70
1:A:737:LEU:HD11	2:B:7:ILE:HG22	1.72	0.70
1:A:2922:LYS:HA	1:A:2925:GLU:HG3	1.74	0.70
1:E:4138:ASP:O	1:E:4142:ASN:ND2	2.24	0.70
1:G:1291:LEU:HD23	1:G:1293:LEU:H	1.55	0.70
1:G:2341:VAL:HG22	1:G:2342:ASN:H	1.57	0.70
1:C:2095:GLN:NE2	1:C:2127:GLN:O	2.25	0.70
1:A:2326:CYS:HA	1:A:2329:GLU:HG2	1.74	0.69
1:G:548:VAL:HG21	1:G:582:HIS:HB3	1.73	0.69
1:C:2326:CYS:HA	1:C:2329:GLU:HG2	1.74	0.69
1:A:1102:VAL:HG22	1:A:1192:CYS:HA	1.75	0.69
1:E:2095:GLN:NE2	1:E:2127:GLN:O	2.25	0.69
1:C:1141:ARG:HH12	1:C:1169:LEU:HD11	1.57	0.69
1:E:4033:GLY:HA2	1:E:4189:ARG:HH12	1.56	0.69
1:A:548:VAL:HG21	1:A:582:HIS:HB3	1.73	0.69
1:C:1078:GLU:HG2	1:C:1080:SER:H	1.55	0.69
1:A:1783:VAL:CG1	2:B:55:VAL:HA	2.21	0.69
1:C:3966:THR:O	1:C:3970:GLN:HB2	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4154:VAL:HG22	1:C:4157:ASP:OD2	1.92	0.69
1:E:4786:ASP:OD2	1:E:4789:PHE:N	2.26	0.69
1:A:1291:LEU:HD23	1:A:1293:LEU:H	1.55	0.69
1:A:2095:GLN:NE2	1:A:2127:GLN:O	2.25	0.69
1:A:3756:LYS:NZ	1:A:4999:ASP:OD1	2.20	0.69
1:A:4003:LEU:HB2	1:A:4013:LEU:HD12	1.75	0.69
1:C:548:VAL:HG21	1:C:582:HIS:HB3	1.73	0.69
1:C:1102:VAL:HG22	1:C:1192:CYS:HA	1.75	0.69
1:E:1102:VAL:HG22	1:E:1192:CYS:HA	1.75	0.69
1:E:2326:CYS:HA	1:E:2329:GLU:HG2	1.74	0.69
1:E:2922:LYS:O	1:E:2925:GLU:HB2	1.93	0.69
1:G:3677:LEU:HB2	1:G:3698:LEU:HD12	1.75	0.69
1:C:4961:CYS:SG	1:C:4978:HIS:NE2	2.61	0.69
1:G:1102:VAL:HG22	1:G:1192:CYS:HA	1.75	0.69
1:A:4961:CYS:SG	1:A:4978:HIS:NE2	2.61	0.69
1:E:445:LEU:HD21	1:E:522:LEU:HD12	1.75	0.69
1:E:548:VAL:HG21	1:E:582:HIS:HB3	1.74	0.68
1:G:4923:PHE:O	1:G:4928:LEU:HG	1.94	0.68
1:A:1663:HIS:O	1:A:1666:THR:OG1	2.08	0.68
1:G:4563:ARG:NH1	1:G:4815:ASP:OD1	2.27	0.68
2:B:74:LEU:HB2	2:B:99:PHE:HB2	1.74	0.68
1:C:2293:GLN:HA	1:C:2296:GLU:HG2	1.74	0.68
1:C:3970:GLN:HE21	1:C:5004:THR:HA	1.58	0.68
1:C:4892:ARG:HG3	1:E:4921:PHE:CE1	2.28	0.68
1:C:4971:THR:HG23	1:C:4974:GLY:HA3	1.75	0.68
1:E:2460:LEU:HD12	1:G:178:ARG:NH1	2.08	0.68
1:G:289:ARG:HD2	1:G:303:ASP:HA	1.75	0.68
1:G:674:PHE:HB3	2:H:40:ARG:HH12	1.58	0.68
1:G:2178:MET:O	1:G:2182:ILE:HG12	1.91	0.68
1:G:2326:CYS:HA	1:G:2329:GLU:HG2	1.74	0.68
1:C:674:PHE:HZ	2:D:71:ARG:NE	1.92	0.68
1:C:4148:THR:O	1:C:4151:SER:OG	2.11	0.68
1:E:3970:GLN:HE21	1:E:5004:THR:HA	1.57	0.68
1:G:265:LEU:HD12	1:G:279:PRO:HB2	1.75	0.68
1:G:4867:GLU:O	1:G:4869:GLU:N	2.27	0.68
1:G:4986:ALA:O	1:G:4989:MET:HG2	1.93	0.68
1:G:4207:MET:HG2	1:G:4208:PRO:HD3	1.76	0.68
1:A:4154:VAL:HG22	1:A:4157:ASP:OD2	1.92	0.68
1:E:289:ARG:HD2	1:E:303:ASP:HA	1.76	0.68
1:E:674:PHE:HZ	2:F:71:ARG:NE	1.90	0.68
1:E:2293:GLN:HA	1:E:2296:GLU:HG2	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4154:VAL:HG22	1:E:4157:ASP:OD2	1.92	0.68
1:A:4148:THR:O	1:A:4151:SER:OG	2.12	0.68
1:A:4727:LYS:HZ1	1:A:4728:HIS:CE1	2.11	0.68
1:C:4003:LEU:HB2	1:C:4013:LEU:HD12	1.76	0.68
1:C:4230:LYS:NZ	1:C:4960:ILE:O	2.27	0.68
1:C:4786:ASP:OD2	1:C:4789:PHE:N	2.26	0.68
2:F:74:LEU:HB2	2:F:99:PHE:HB2	1.75	0.68
1:A:674:PHE:HZ	2:B:71:ARG:NE	1.91	0.68
1:A:4786:ASP:OD2	1:A:4789:PHE:N	2.26	0.68
1:C:4655:PHE:O	1:C:4658:ILE:HG13	1.94	0.68
2:D:74:LEU:HB2	2:D:99:PHE:HB2	1.75	0.68
1:A:2059:LEU:HB3	1:A:2062:ARG:NH1	2.09	0.68
1:A:4921:PHE:CE1	1:G:4892:ARG:HG3	2.29	0.68
1:C:702:TRP:CD1	2:D:34:LYS:NZ	2.58	0.68
1:G:1931:LEU:O	1:G:1936:LYS:NZ	2.21	0.68
1:A:168:ASP:OD1	1:A:201:ASN:ND2	2.27	0.67
1:A:2151:ASP:OD1	1:A:2188:ASN:ND2	2.27	0.67
1:A:4867:GLU:O	1:A:4869:GLU:N	2.27	0.67
1:C:289:ARG:HD2	1:C:303:ASP:HA	1.75	0.67
1:E:1708:ARG:HD2	1:E:1837:GLN:HE22	1.59	0.67
1:G:4876:CYS:O	1:G:4881:THR:OG1	2.09	0.67
1:C:4036:VAL:O	1:C:4038:GLY:N	2.27	0.67
1:E:2059:LEU:HB3	1:E:2062:ARG:NH1	2.09	0.67
1:G:2151:ASP:OD1	1:G:2188:ASN:ND2	2.27	0.67
1:A:4230:LYS:NZ	1:A:4960:ILE:O	2.27	0.67
1:E:106:ALA:HB1	1:E:147:TRP:HB3	1.77	0.67
1:E:2151:ASP:OD1	1:E:2188:ASN:ND2	2.27	0.67
1:E:4148:THR:O	1:E:4151:SER:OG	2.11	0.67
1:A:4655:PHE:O	1:A:4658:ILE:HG13	1.95	0.67
1:C:737:LEU:HD11	2:D:7:ILE:HG22	1.74	0.67
1:C:1708:ARG:HD2	1:C:1837:GLN:HE22	1.59	0.67
1:E:4036:VAL:O	1:E:4038:GLY:N	2.27	0.67
1:E:4230:LYS:NZ	1:E:4960:ILE:O	2.27	0.67
1:E:4581:LYS:HD2	1:G:4856:PHE:HZ	1.59	0.67
1:E:4655:PHE:O	1:E:4658:ILE:HG13	1.94	0.67
1:G:3780:LEU:HD11	1:G:3820:LEU:HD21	1.76	0.67
1:C:106:ALA:HB1	1:C:147:TRP:HB3	1.77	0.67
1:C:2151:ASP:OD1	1:C:2188:ASN:ND2	2.27	0.67
1:E:265:LEU:HD12	1:E:279:PRO:HB2	1.77	0.67
1:E:975:VAL:HG21	1:E:1044:ARG:HB3	1.75	0.67
1:A:975:VAL:HG21	1:A:1044:ARG:HB3	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4036:VAL:O	1:A:4038:GLY:N	2.27	0.67
1:C:2460:LEU:HD12	1:E:178:ARG:NH1	2.10	0.67
1:E:544:LEU:HD21	1:E:578:ILE:HG13	1.76	0.67
1:E:579:GLN:HB2	1:E:582:HIS:ND1	2.10	0.67
1:G:579:GLN:HB2	1:G:582:HIS:ND1	2.10	0.67
1:G:2059:LEU:HB3	1:G:2062:ARG:NH1	2.09	0.67
1:A:445:LEU:HD21	1:A:522:LEU:HD12	1.76	0.67
1:A:579:GLN:HB2	1:A:582:HIS:ND1	2.10	0.67
1:A:4884:LEU:HA	1:A:4887:MET:HB3	1.77	0.67
1:C:4884:LEU:HA	1:C:4887:MET:HB3	1.77	0.67
1:C:4892:ARG:NH1	1:E:4896:GLY:HA3	2.09	0.67
1:G:717:ASP:OD2	2:H:7:ILE:HA	1.95	0.67
1:A:289:ARG:HD2	1:A:303:ASP:HA	1.75	0.67
1:A:1100:MET:HB2	1:A:1126:GLY:HA3	1.76	0.67
1:C:1457:TYR:OH	1:C:1459:GLN:NE2	2.27	0.67
1:G:975:VAL:HG21	1:G:1044:ARG:HB3	1.76	0.67
1:G:1663:HIS:O	1:G:1666:THR:OG1	2.08	0.67
1:A:544:LEU:HD21	1:A:578:ILE:HG13	1.76	0.67
1:C:975:VAL:HG21	1:C:1044:ARG:HB3	1.76	0.67
2:D:48:PHE:HZ	2:D:63:VAL:HG11	1.59	0.67
1:E:865:PRO:HA	1:E:868:GLU:HB2	1.76	0.67
1:E:4003:LEU:HB2	1:E:4013:LEU:HD12	1.76	0.67
1:G:1703:LEU:HD12	1:G:1704:PRO:HD2	1.77	0.67
1:A:265:LEU:HD12	1:A:279:PRO:HB2	1.76	0.67
1:C:265:LEU:HD12	1:C:279:PRO:HB2	1.75	0.67
1:C:544:LEU:HD21	1:C:578:ILE:HG13	1.76	0.67
1:C:4867:GLU:O	1:C:4869:GLU:N	2.27	0.67
1:E:4867:GLU:O	1:E:4869:GLU:N	2.27	0.67
1:G:1544:PRO:HG2	1:G:1546:THR:HG23	1.77	0.67
1:G:2095:GLN:NE2	1:G:2127:GLN:O	2.28	0.67
1:A:263:GLU:O	1:A:281:ARG:N	2.28	0.66
1:C:445:LEU:HD21	1:C:522:LEU:HD12	1.75	0.66
1:C:2059:LEU:HB3	1:C:2062:ARG:NH1	2.09	0.66
1:E:645:ARG:O	1:E:824:GLU:N	2.28	0.66
1:G:106:ALA:HB1	1:G:147:TRP:HB3	1.77	0.66
1:G:865:PRO:HA	1:G:868:GLU:HB2	1.77	0.66
1:G:4003:LEU:HB2	1:G:4013:LEU:HD12	1.77	0.66
1:A:758:ARG:NH1	1:A:763:PRO:HD3	2.10	0.66
1:A:4971:THR:HG23	1:A:4974:GLY:HA3	1.77	0.66
1:E:1856:ASP:H	1:E:1857:GLU:HB3	1.60	0.66
1:E:2430:ILE:HD13	1:E:2502:MET:HG2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:263:GLU:O	1:G:281:ARG:N	2.28	0.66
1:G:445:LEU:HD21	1:G:522:LEU:HD12	1.75	0.66
1:A:2460:LEU:HD12	1:C:178:ARG:NH1	2.10	0.66
1:A:2770:LYS:HG3	1:A:2791:LEU:HD21	1.77	0.66
1:A:4210:VAL:O	1:A:4214:LYS:N	2.28	0.66
1:C:1856:ASP:H	1:C:1857:GLU:HB3	1.61	0.66
1:E:2770:LYS:HG3	1:E:2791:LEU:HD21	1.77	0.66
1:E:4210:VAL:O	1:E:4214:LYS:N	2.28	0.66
1:E:4892:ARG:HA	1:G:4921:PHE:CZ	2.29	0.66
1:A:1513:ASP:C	1:A:1514:LEU:HD12	2.16	0.66
1:C:540:PHE:HA	1:C:543:ASN:HD22	1.61	0.66
1:C:579:GLN:HB2	1:C:582:HIS:ND1	2.10	0.66
1:C:1100:MET:HB2	1:C:1126:GLY:HA3	1.76	0.66
1:A:540:PHE:HA	1:A:543:ASN:HD22	1.61	0.66
1:A:1703:LEU:HD12	1:A:1704:PRO:HD2	1.78	0.66
1:C:1078:GLU:HA	1:C:1237:TRP:CZ3	2.31	0.66
1:C:2770:LYS:HG3	1:C:2791:LEU:HD21	1.77	0.66
1:E:252:VAL:HG23	1:E:257:ARG:HE	1.61	0.66
1:E:1100:MET:HB2	1:E:1126:GLY:HA3	1.76	0.66
1:E:4971:THR:HG23	1:E:4974:GLY:HA3	1.77	0.66
2:F:48:PHE:HZ	2:F:63:VAL:HG11	1.59	0.66
1:G:4884:LEU:HA	1:G:4887:MET:HB3	1.78	0.66
1:C:591:ASP:OD2	1:C:1585:LYS:HG3	1.95	0.66
1:E:674:PHE:HB3	2:F:40:ARG:HH12	1.60	0.66
1:A:591:ASP:OD2	1:A:1585:LYS:HG3	1.95	0.66
1:C:1703:LEU:HD12	1:C:1704:PRO:HD2	1.77	0.66
1:C:2430:ILE:HD13	1:C:2502:MET:HG2	1.78	0.66
1:E:3934:TYR:HB2	1:E:3995:VAL:HG13	1.78	0.66
1:E:168:ASP:OD1	1:E:201:ASN:ND2	2.27	0.66
1:G:168:ASP:OD1	1:G:201:ASN:ND2	2.28	0.66
1:G:591:ASP:OD2	1:G:1585:LYS:HG3	1.95	0.66
1:G:1708:ARG:HD2	1:G:1837:GLN:HE22	1.60	0.66
1:A:865:PRO:HA	1:A:868:GLU:HB2	1.78	0.66
1:C:252:VAL:HG23	1:C:257:ARG:HE	1.61	0.66
1:C:263:GLU:O	1:C:281:ARG:N	2.28	0.66
1:E:4933:GLN:HG2	1:G:4926:VAL:HG13	1.76	0.66
1:G:1100:MET:HB2	1:G:1126:GLY:HA3	1.76	0.66
1:A:1544:PRO:HG2	1:A:1546:THR:HG23	1.78	0.65
1:A:1856:ASP:H	1:A:1857:GLU:HB3	1.61	0.65
1:C:628:GLY:O	1:C:630:GLU:N	2.27	0.65
1:C:758:ARG:NH1	1:C:763:PRO:HD3	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1544:PRO:HG2	1:C:1546:THR:HG23	1.78	0.65
1:C:2862:LEU:HD21	1:C:2929:PHE:HB2	1.78	0.65
1:E:1703:LEU:HD12	1:E:1704:PRO:HD2	1.77	0.65
1:G:4154:VAL:O	1:G:4154:VAL:HG13	1.96	0.65
1:A:3934:TYR:HB2	1:A:3995:VAL:HG13	1.78	0.65
1:A:4839:MET:SD	1:G:4822:THR:HG23	2.35	0.65
1:C:2922:LYS:HA	1:C:2925:GLU:HG2	1.78	0.65
1:C:4727:LYS:HZ1	1:C:4728:HIS:CE1	2.13	0.65
1:G:252:VAL:HG23	1:G:257:ARG:HE	1.61	0.65
1:G:544:LEU:HD21	1:G:578:ILE:HG13	1.77	0.65
1:G:593:HIS:HB3	1:G:596:ASN:ND2	2.12	0.65
1:G:645:ARG:O	1:G:824:GLU:N	2.28	0.65
1:G:1856:ASP:H	1:G:1857:GLU:HB3	1.61	0.65
1:A:645:ARG:O	1:A:824:GLU:N	2.28	0.65
1:A:2430:ILE:HD13	1:A:2502:MET:HG2	1.78	0.65
1:E:758:ARG:NH1	1:E:763:PRO:HD3	2.11	0.65
1:E:1663:HIS:O	1:E:1666:THR:OG1	2.07	0.65
1:G:628:GLY:O	1:G:630:GLU:N	2.27	0.65
1:G:2770:LYS:HG3	1:G:2791:LEU:HD21	1.77	0.65
1:A:1708:ARG:HD2	1:A:1837:GLN:HE22	1.60	0.65
1:A:2646:ASN:HA	1:A:2699:ALA:HB1	1.79	0.65
1:C:593:HIS:HB3	1:C:596:ASN:ND2	2.12	0.65
1:A:593:HIS:HB3	1:A:596:ASN:ND2	2.12	0.65
1:A:2862:LEU:HD21	1:A:2929:PHE:HB2	1.78	0.65
1:A:4839:MET:SD	1:G:4822:THR:O	2.54	0.65
1:C:3934:TYR:HB2	1:C:3995:VAL:HG13	1.78	0.65
1:E:591:ASP:OD2	1:E:1585:LYS:HG3	1.95	0.65
1:E:1078:GLU:HA	1:E:1237:TRP:CZ3	2.31	0.65
1:G:2293:GLN:HA	1:G:2296:GLU:HG2	1.77	0.65
1:A:178:ARG:NH1	1:G:2460:LEU:HD12	2.12	0.65
1:A:628:GLY:O	1:A:630:GLU:N	2.27	0.65
1:A:3969:ILE:HG12	1:A:3980:LEU:HD11	1.79	0.65
2:B:48:PHE:HZ	2:B:63:VAL:HG11	1.59	0.65
1:E:18:ASP:HB3	1:E:69:LEU:HD12	1.78	0.65
1:G:3966:THR:O	1:G:3970:GLN:N	2.29	0.65
1:A:451:TYR:O	1:A:474:ARG:NH1	2.30	0.65
1:A:1078:GLU:HA	1:A:1237:TRP:CZ3	2.32	0.65
1:E:540:PHE:HA	1:E:543:ASN:HD22	1.61	0.65
1:G:669:ASP:OD2	1:G:790:ARG:HB2	1.96	0.65
1:G:2430:ILE:HD13	1:G:2502:MET:HG2	1.79	0.65
1:C:3969:ILE:HG12	1:C:3980:LEU:HD11	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1141:ARG:HH12	1:E:1169:LEU:HD11	1.59	0.65
1:E:2862:LEU:HD21	1:E:2929:PHE:HB2	1.79	0.65
1:G:4786:ASP:OD2	1:G:4789:PHE:N	2.29	0.65
1:A:4839:MET:CE	1:G:4826:ILE:HG13	2.27	0.65
1:E:467:LYS:O	1:E:470:SER:OG	2.12	0.65
1:G:540:PHE:HA	1:G:543:ASN:HD22	1.61	0.65
1:G:4107:GLU:HA	1:G:4110:PHE:HB3	1.78	0.65
1:E:669:ASP:OD2	1:E:790:ARG:HB2	1.97	0.65
1:A:669:ASP:OD2	1:A:790:ARG:HB2	1.97	0.64
1:A:4688:ILE:HD12	1:A:4737:ILE:HD12	1.79	0.64
1:C:865:PRO:HA	1:C:868:GLU:HB2	1.77	0.64
1:E:1544:PRO:HG2	1:E:1546:THR:HG23	1.78	0.64
1:E:4884:LEU:HA	1:E:4887:MET:HB3	1.80	0.64
1:G:451:TYR:O	1:G:474:ARG:NH1	2.30	0.64
1:E:263:GLU:O	1:E:281:ARG:N	2.28	0.64
1:E:593:HIS:HB3	1:E:596:ASN:ND2	2.12	0.64
1:A:106:ALA:HB1	1:A:147:TRP:HB3	1.79	0.64
1:A:3914:ASN:HB3	1:A:3917:ILE:HD12	1.79	0.64
1:C:4688:ILE:HD12	1:C:4737:ILE:HD12	1.79	0.64
1:E:451:TYR:O	1:E:474:ARG:NH1	2.31	0.64
1:E:628:GLY:O	1:E:630:GLU:N	2.27	0.64
1:G:4643:LEU:HA	1:G:4646:LEU:HB2	1.80	0.64
1:A:131:LEU:HB3	1:G:2460:LEU:HD21	1.80	0.64
1:A:1115:LEU:HD21	1:A:1123:VAL:HG21	1.80	0.64
1:A:2922:LYS:HA	1:A:2925:GLU:HG2	1.77	0.64
1:C:2646:ASN:HA	1:C:2699:ALA:HB1	1.78	0.64
1:E:3969:ILE:HG12	1:E:3980:LEU:HD11	1.80	0.64
1:G:18:ASP:HB3	1:G:69:LEU:HD12	1.79	0.64
1:G:1436:SER:HA	1:G:1515:VAL:O	1.98	0.64
1:A:674:PHE:HB3	2:B:40:ARG:HH12	1.62	0.64
1:A:4027:LEU:O	1:A:4031:LEU:HD13	1.98	0.64
1:C:168:ASP:OD1	1:C:201:ASN:ND2	2.28	0.64
1:C:669:ASP:OD2	1:C:790:ARG:HB2	1.97	0.64
1:C:1293:LEU:HD23	1:C:1584:ARG:HG2	1.80	0.64
1:E:638:ILE:HG22	1:E:639:ASN:H	1.62	0.64
1:E:4688:ILE:HD12	1:E:4737:ILE:HD12	1.79	0.64
1:G:3914:ASN:HB3	1:G:3917:ILE:HD12	1.78	0.64
1:A:116:MET:HG2	1:A:139:GLU:HG3	1.80	0.64
1:C:3914:ASN:HB3	1:C:3917:ILE:HD12	1.79	0.64
1:G:467:LYS:O	1:G:470:SER:OG	2.12	0.64
1:G:638:ILE:HG22	1:G:639:ASN:H	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1561:VAL:HG13	1:G:1562:ILE:HG22	1.80	0.64
1:A:252:VAL:HG23	1:A:257:ARG:HE	1.61	0.64
1:C:2453:ILE:O	1:C:2456:ILE:HG22	1.98	0.64
1:E:4823:LEU:HA	1:E:4826:ILE:HD12	1.79	0.64
1:G:1078:GLU:HB3	1:G:1081:TYR:CD2	2.33	0.64
1:A:4892:ARG:HG3	1:C:4921:PHE:CE1	2.33	0.64
1:C:1115:LEU:HD21	1:C:1123:VAL:HG21	1.80	0.64
1:E:1078:GLU:HB3	1:E:1081:TYR:CD2	2.33	0.64
1:E:2453:ILE:O	1:E:2456:ILE:HG22	1.98	0.64
1:G:116:MET:HG2	1:G:139:GLU:HG3	1.80	0.64
1:G:758:ARG:NH1	1:G:763:PRO:HD3	2.13	0.64
1:G:4933:GLN:O	1:G:4937:ILE:HG12	1.98	0.64
1:A:674:PHE:CD1	2:B:40:ARG:NH1	2.64	0.64
1:C:451:TYR:O	1:C:474:ARG:NH1	2.31	0.64
1:C:1143:TRP:HB3	1:C:1164:LEU:HD11	1.80	0.64
1:A:2922:LYS:C	1:A:2925:GLU:HB2	2.18	0.64
1:A:4035:VAL:HG23	1:A:4036:VAL:H	1.63	0.64
1:C:116:MET:HG2	1:C:139:GLU:HG3	1.80	0.64
1:A:1078:GLU:HB3	1:A:1081:TYR:CD2	2.33	0.63
1:C:4210:VAL:O	1:C:4214:LYS:N	2.28	0.63
2:D:27:THR:HG22	2:D:100:ASP:HB3	1.80	0.63
1:E:1115:LEU:HD21	1:E:1123:VAL:HG21	1.80	0.63
1:E:1293:LEU:HD23	1:E:1584:ARG:HG2	1.80	0.63
1:E:2460:LEU:HD21	1:G:131:LEU:HB3	1.80	0.63
1:E:3702:VAL:HG21	1:E:3773:ARG:HB3	1.80	0.63
1:G:737:LEU:HD13	2:H:8:SER:HB3	1.80	0.63
1:G:2453:ILE:O	1:G:2456:ILE:HG22	1.98	0.63
1:G:2646:ASN:HA	1:G:2699:ALA:HB1	1.81	0.63
1:E:3889:GLN:NE2	1:E:3963:ASN:OD1	2.32	0.63
1:G:3783:ILE:O	1:G:3831:SER:OG	2.11	0.63
1:G:3813:GLN:OE1	1:G:3896:ASN:ND2	2.31	0.63
1:A:2453:ILE:O	1:A:2456:ILE:HG22	1.98	0.63
1:A:3878:ASP:O	1:A:3881:THR:OG1	2.14	0.63
1:A:4986:ALA:O	1:A:4989:MET:HG2	1.99	0.63
1:C:18:ASP:HB3	1:C:69:LEU:HD12	1.79	0.63
1:C:212:GLY:HA2	1:C:341:TYR:H	1.63	0.63
1:C:638:ILE:HG22	1:C:639:ASN:H	1.62	0.63
1:C:4035:VAL:HG23	1:C:4036:VAL:H	1.63	0.63
1:E:1143:TRP:HB3	1:E:1164:LEU:HD11	1.80	0.63
1:E:3892:CYS:HB3	1:E:3900:GLN:HE21	1.63	0.63
1:E:4124:ASN:OD1	1:E:4125:PHE:N	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4986:ALA:O	1:E:4989:MET:HG2	1.99	0.63
1:G:1104:TRP:HB3	1:G:1188:PHE:HB3	1.81	0.63
1:G:1143:TRP:HB3	1:G:1164:LEU:HD11	1.79	0.63
1:C:263:GLU:HB2	1:C:281:ARG:HB2	1.81	0.63
1:C:646:PRO:HD2	1:C:779:PRO:HG2	1.79	0.63
1:C:2770:LYS:HB3	1:C:2775:TRP:HB2	1.81	0.63
1:C:674:PHE:CD1	2:D:40:ARG:NH1	2.62	0.63
1:C:4027:LEU:O	1:C:4031:LEU:HD13	1.97	0.63
1:E:1104:TRP:HB3	1:E:1188:PHE:HB3	1.81	0.63
1:G:4715:TYR:CE2	1:G:4717:ASP:HB2	2.34	0.63
1:G:4983:HIS:C	1:G:4985:LEU:H	2.01	0.63
1:A:646:PRO:HD2	1:A:779:PRO:HG2	1.80	0.63
1:C:603:LEU:HD23	1:C:606:LEU:HD12	1.80	0.63
1:C:1561:VAL:HG13	1:C:1562:ILE:HG22	1.80	0.63
1:C:3963:ASN:O	1:C:3966:THR:OG1	2.14	0.63
1:C:4889:VAL:O	1:C:4893:ALA:N	2.22	0.63
1:E:603:LEU:HD23	1:E:606:LEU:HD12	1.81	0.63
1:E:2646:ASN:HA	1:E:2699:ALA:HB1	1.80	0.63
1:E:4656:LEU:O	1:E:4659:ILE:HG22	1.97	0.63
1:G:2862:LEU:HD21	1:G:2929:PHE:HB2	1.80	0.63
1:E:3914:ASN:HB3	1:E:3917:ILE:HD12	1.79	0.63
2:F:27:THR:HG22	2:F:100:ASP:HB3	1.80	0.63
1:G:1115:LEU:HD21	1:G:1123:VAL:HG21	1.80	0.63
1:G:4881:THR:HA	1:G:4884:LEU:HG	1.81	0.63
1:A:1561:VAL:HG13	1:A:1562:ILE:HG22	1.80	0.63
1:C:224:HIS:HB2	1:C:247:TYR:CD1	2.34	0.63
1:E:4035:VAL:HG23	1:E:4036:VAL:H	1.63	0.63
1:A:170:ILE:HG12	1:A:197:GLN:HB3	1.79	0.63
1:A:1729:SER:HB2	1:A:2163:ARG:NH1	2.14	0.63
1:A:4656:LEU:O	1:A:4659:ILE:HG22	1.98	0.63
1:C:4656:LEU:O	1:C:4659:ILE:HG22	1.98	0.63
1:E:212:GLY:HA2	1:E:341:TYR:H	1.64	0.63
1:E:263:GLU:HB2	1:E:281:ARG:HB2	1.81	0.63
1:G:170:ILE:HG12	1:G:197:GLN:HB3	1.81	0.63
1:G:603:LEU:HD23	1:G:606:LEU:HD12	1.81	0.63
1:G:674:PHE:CB	2:H:40:ARG:HH12	2.12	0.63
1:G:1729:SER:HB2	1:G:2163:ARG:NH1	2.14	0.63
1:A:3889:GLN:NE2	1:A:3963:ASN:OD1	2.32	0.62
1:A:4868:ASP:OD1	1:A:4869:GLU:N	2.32	0.62
1:A:4889:VAL:O	1:A:4893:ALA:N	2.22	0.62
1:A:4931:ILE:HD11	1:G:4940:PHE:CD1	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1078:GLU:HB3	1:C:1081:TYR:CD2	2.33	0.62
1:C:4124:ASN:OD1	1:C:4125:PHE:N	2.32	0.62
1:G:4124:ASN:OD1	1:G:4125:PHE:N	2.31	0.62
1:A:224:HIS:HB2	1:A:247:TYR:CD1	2.34	0.62
1:A:1835:GLU:CG	1:A:1932:PRO:HG2	2.27	0.62
1:C:1104:TRP:HB3	1:C:1188:PHE:HB3	1.81	0.62
1:E:2770:LYS:HB3	1:E:2775:TRP:HB2	1.81	0.62
1:E:3962:PHE:O	1:E:3966:THR:HG23	1.99	0.62
1:G:2071:ARG:NH2	1:G:3666:ASP:OD2	2.32	0.62
1:G:3926:LEU:O	1:G:3930:ILE:HG12	1.99	0.62
1:G:4956:THR:O	1:G:4965:SER:N	2.32	0.62
1:A:603:LEU:HD23	1:A:606:LEU:HD12	1.81	0.62
1:A:1143:TRP:HB3	1:A:1164:LEU:HD11	1.79	0.62
1:A:2770:LYS:HB3	1:A:2775:TRP:HB2	1.81	0.62
1:C:2460:LEU:HD21	1:E:131:LEU:HB3	1.80	0.62
1:E:1436:SER:HA	1:E:1515:VAL:O	1.99	0.62
1:E:1561:VAL:HG13	1:E:1562:ILE:HG22	1.80	0.62
1:E:4027:LEU:O	1:E:4031:LEU:HD13	1.98	0.62
1:E:4868:ASP:OD1	1:E:4869:GLU:N	2.32	0.62
1:G:1078:GLU:HA	1:G:1237:TRP:CZ3	2.32	0.62
1:A:669:ASP:HB3	1:A:788:LYS:HZ1	1.64	0.62
1:A:1104:TRP:HB3	1:A:1188:PHE:HB3	1.81	0.62
1:C:3702:VAL:HG21	1:C:3773:ARG:HB3	1.81	0.62
1:C:3962:PHE:O	1:C:3966:THR:HG23	1.99	0.62
1:C:4986:ALA:O	1:C:4989:MET:HG2	1.99	0.62
1:E:116:MET:HG2	1:E:139:GLU:HG3	1.80	0.62
1:G:224:HIS:HB2	1:G:247:TYR:CD1	2.34	0.62
1:G:3884:LEU:O	1:G:3887:PHE:HB3	1.98	0.62
1:G:3900:GLN:NE2	1:G:3967:GLU:O	2.31	0.62
1:G:4160:LEU:O	1:G:4164:LEU:N	2.32	0.62
1:G:4853:VAL:O	1:G:4857:ASN:ND2	2.31	0.62
1:A:263:GLU:HB2	1:A:281:ARG:HB2	1.82	0.62
1:G:1853:ILE:O	1:G:1854:PHE:HB2	1.99	0.62
1:G:2770:LYS:HB3	1:G:2775:TRP:HB2	1.82	0.62
1:C:2452:ARG:NH2	1:E:177:GLU:OE2	2.33	0.62
1:E:1729:SER:HB2	1:E:2163:ARG:NH1	2.14	0.62
2:B:27:THR:HG22	2:B:100:ASP:HB3	1.81	0.62
1:E:1087:ARG:HB3	1:E:1223:PHE:HD1	1.64	0.62
1:E:2071:ARG:NH2	1:E:3666:ASP:OD2	2.33	0.62
1:G:212:GLY:HA2	1:G:341:TYR:H	1.64	0.62
1:G:1087:ARG:HB3	1:G:1223:PHE:HD1	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4901:ILE:HD13	1:G:4913:ARG:HH21	1.65	0.62
1:A:2071:ARG:NH2	1:A:3666:ASP:OD2	2.33	0.62
1:E:170:ILE:HG12	1:E:197:GLN:HB3	1.81	0.62
1:E:224:HIS:HB2	1:E:247:TYR:CD1	2.34	0.62
1:E:646:PRO:HD2	1:E:779:PRO:HG2	1.80	0.62
1:G:646:PRO:HD2	1:G:779:PRO:HG2	1.80	0.62
1:G:3892:CYS:HB3	1:G:3900:GLN:HE21	1.65	0.62
1:A:554:LEU:HD13	1:A:1596:GLU:HB3	1.82	0.62
1:A:1293:LEU:HD23	1:A:1584:ARG:HG2	1.81	0.62
1:A:3962:PHE:O	1:A:3966:THR:HG23	1.99	0.62
1:C:554:LEU:HD13	1:C:1596:GLU:HB3	1.82	0.62
1:C:645:ARG:O	1:C:824:GLU:N	2.28	0.62
1:E:554:LEU:HD13	1:E:1596:GLU:HB3	1.82	0.62
1:E:1827:ARG:HG3	1:E:1827:ARG:O	2.00	0.62
1:E:1853:ILE:O	1:E:1854:PHE:HB2	1.99	0.62
1:G:263:GLU:HB2	1:G:281:ARG:HB2	1.81	0.62
1:G:1293:LEU:HD23	1:G:1584:ARG:HG2	1.81	0.62
1:C:1158:ASN:HB3	1:C:1182:ILE:H	1.65	0.62
1:C:1853:ILE:O	1:C:1854:PHE:HB2	1.99	0.62
1:C:2460:LEU:CD1	1:E:178:ARG:NH1	2.62	0.62
1:A:212:GLY:HA2	1:A:341:TYR:H	1.63	0.61
1:A:702:TRP:CD1	2:B:34:LYS:NZ	2.58	0.61
1:A:892:THR:H	1:A:902:ARG:HA	1.65	0.61
1:G:478:PHE:CZ	1:G:483:MET:HB2	2.35	0.61
1:G:4688:ILE:HD12	1:G:4737:ILE:HD12	1.82	0.61
2:H:27:THR:HA	2:H:38:SER:HA	1.82	0.61
1:A:168:ASP:HB3	1:A:199:LEU:HD22	1.82	0.61
1:A:2930:LEU:HB3	1:A:2937:VAL:HG21	1.82	0.61
1:A:4581:LYS:HD2	1:C:4856:PHE:HZ	1.65	0.61
1:E:3965:LEU:HD23	1:E:3968:TYR:HD2	1.65	0.61
1:G:264:PRO:HG3	1:G:274:LEU:HD11	1.82	0.61
1:G:554:LEU:HD13	1:G:1596:GLU:HB3	1.82	0.61
1:A:3702:VAL:HG21	1:A:3773:ARG:HB3	1.81	0.61
1:C:674:PHE:HB3	2:D:40:ARG:HH12	1.64	0.61
1:C:1827:ARG:O	1:C:1827:ARG:HG3	2.01	0.61
1:C:4023:MET:O	1:C:4026:MET:HG2	2.00	0.61
1:E:748:LEU:HD11	1:E:753:PRO:HA	1.82	0.61
1:E:2460:LEU:CD1	1:G:178:ARG:NH1	2.63	0.61
1:A:264:PRO:HG3	1:A:274:LEU:HD11	1.82	0.61
1:C:1729:SER:HB2	1:C:2163:ARG:NH1	2.15	0.61
1:E:478:PHE:CZ	1:E:483:MET:HB2	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2930:LEU:HB3	1:E:2937:VAL:HG21	1.80	0.61
1:A:4124:ASN:OD1	1:A:4125:PHE:N	2.32	0.61
1:A:4856:PHE:HZ	1:G:4581:LYS:HD2	1.64	0.61
1:C:2237:CYS:HB2	1:C:2275:VAL:HG22	1.83	0.61
1:C:3892:CYS:HB3	1:C:3900:GLN:HE21	1.64	0.61
1:E:264:PRO:HG3	1:E:274:LEU:HD11	1.83	0.61
1:E:2237:CYS:HB2	1:E:2275:VAL:HG22	1.82	0.61
1:G:1158:ASN:HB3	1:G:1182:ILE:H	1.65	0.61
1:A:3892:CYS:HB3	1:A:3900:GLN:HE21	1.64	0.61
1:C:467:LYS:O	1:C:470:SER:OG	2.13	0.61
1:C:1835:GLU:CG	1:C:1932:PRO:HG2	2.26	0.61
1:C:2071:ARG:NH2	1:C:3666:ASP:OD2	2.33	0.61
1:G:1827:ARG:HG3	1:G:1827:ARG:O	2.01	0.61
1:G:4555:LEU:HD22	1:G:4660:GLY:HA3	1.82	0.61
1:G:4847:VAL:HG21	1:G:4928:LEU:HD11	1.83	0.61
1:G:4868:ASP:OD1	1:G:4869:GLU:N	2.32	0.61
1:A:1815:LEU:HD11	1:A:1845:VAL:HG21	1.83	0.61
1:A:3965:LEU:HD23	1:A:3968:TYR:HD2	1.65	0.61
1:A:4023:MET:O	1:A:4026:MET:HG2	2.00	0.61
1:C:478:PHE:CZ	1:C:483:MET:HB2	2.35	0.61
1:C:892:THR:H	1:C:902:ARG:HA	1.65	0.61
1:E:1835:GLU:CG	1:E:1932:PRO:HG2	2.26	0.61
1:E:4063:ASP:HA	1:E:4170:ILE:HG12	1.83	0.61
1:G:214:VAL:HA	1:G:341:TYR:CE1	2.36	0.61
1:G:4190:ILE:HD11	1:G:5026:ASP:HB2	1.81	0.61
1:A:18:ASP:HB3	1:A:69:LEU:HD12	1.81	0.61
1:A:178:ARG:NH1	1:G:2460:LEU:CD1	2.64	0.61
1:A:1827:ARG:HG3	1:A:1827:ARG:O	2.01	0.61
1:C:264:PRO:HG3	1:C:274:LEU:HD11	1.83	0.61
1:C:3889:GLN:NE2	1:C:3963:ASN:OD1	2.32	0.61
1:C:3965:LEU:HD23	1:C:3968:TYR:HD2	1.65	0.61
1:C:4172:GLU:HG2	1:C:4175:ARG:NH1	2.15	0.61
1:E:892:THR:H	1:E:902:ARG:HA	1.65	0.61
1:E:1825:HIS:ND1	1:E:1825:HIS:O	2.34	0.61
1:G:748:LEU:HD11	1:G:753:PRO:HA	1.83	0.61
1:G:892:THR:H	1:G:902:ARG:HA	1.65	0.61
1:A:214:VAL:HA	1:A:341:TYR:CE1	2.36	0.61
1:A:4031:LEU:HD11	1:A:4044:MET:SD	2.41	0.61
1:G:1835:GLU:CG	1:G:1932:PRO:HG2	2.26	0.61
1:G:4642:ALA:O	1:G:4646:LEU:N	2.32	0.61
2:H:48:PHE:HZ	2:H:63:VAL:HG11	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:478:PHE:CZ	1:A:483:MET:HB2	2.36	0.61
1:A:1856:ASP:H	1:A:1858:ASP:H	1.49	0.61
1:A:2460:LEU:HD21	1:C:131:LEU:HB3	1.82	0.61
1:A:4063:ASP:HA	1:A:4170:ILE:HG12	1.83	0.61
1:C:840:VAL:HG12	1:C:1199:VAL:HG13	1.83	0.61
1:C:1815:LEU:HD11	1:C:1845:VAL:HG21	1.83	0.61
1:E:3893:GLU:HA	1:E:3967:GLU:OE2	2.01	0.61
1:G:1815:LEU:HD11	1:G:1845:VAL:HG21	1.82	0.61
1:C:1825:HIS:ND1	1:C:1825:HIS:O	2.33	0.60
1:C:1856:ASP:H	1:C:1858:ASP:H	1.49	0.60
1:C:4063:ASP:HA	1:C:4170:ILE:HG12	1.83	0.60
1:E:1158:ASN:HB3	1:E:1182:ILE:H	1.65	0.60
1:E:4023:MET:O	1:E:4026:MET:HG2	2.00	0.60
1:G:887:ILE:HG21	1:G:962:SER:HB2	1.83	0.60
1:C:170:ILE:HG12	1:C:197:GLN:HB3	1.81	0.60
1:C:2930:LEU:HB3	1:C:2937:VAL:HG21	1.81	0.60
1:E:533:ASN:OD1	1:E:534:ARG:N	2.34	0.60
1:E:2452:ARG:NH2	1:G:177:GLU:OE2	2.34	0.60
1:G:533:ASN:OD1	1:G:534:ARG:N	2.34	0.60
1:G:3968:TYR:HB2	1:G:3969:ILE:HD12	1.83	0.60
1:A:1853:ILE:O	1:A:1854:PHE:HB2	1.99	0.60
1:C:4031:LEU:HD11	1:C:4044:MET:SD	2.41	0.60
1:G:1825:HIS:ND1	1:G:1825:HIS:O	2.34	0.60
1:G:1856:ASP:H	1:G:1858:ASP:H	1.49	0.60
1:A:1854:PHE:HB3	1:A:1855:GLY:HA2	1.84	0.60
1:A:2237:CYS:HB2	1:A:2275:VAL:HG22	1.82	0.60
1:C:748:LEU:HD11	1:C:753:PRO:HA	1.82	0.60
1:E:214:VAL:HA	1:E:341:TYR:CE1	2.36	0.60
1:E:299:LEU:HB2	1:E:378:LEU:HG	1.84	0.60
1:E:3771:HIS:HD2	1:E:3812:VAL:HG22	1.65	0.60
1:G:2204:HIS:HB3	1:G:2239:PHE:CE2	2.37	0.60
1:G:4030:LEU:HD23	1:G:4044:MET:HE3	1.83	0.60
1:A:1205:GLY:HA2	1:A:1225:PRO:HB2	1.83	0.60
1:A:3771:HIS:HD2	1:A:3812:VAL:HG22	1.64	0.60
1:A:4715:TYR:CE2	1:A:4717:ASP:HB2	2.36	0.60
1:C:1854:PHE:HB3	1:C:1855:GLY:HA2	1.83	0.60
1:E:37:LEU:HD11	1:E:47:CYS:SG	2.42	0.60
1:E:5006:GLN:HA	1:E:5009:TYR:CE2	2.37	0.60
1:G:1854:PHE:HB3	1:G:1855:GLY:HA2	1.84	0.60
1:G:4836:GLN:O	1:G:4839:MET:HG2	2.01	0.60
1:A:748:LEU:HD11	1:A:753:PRO:HA	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:748:LEU:HD13	1:A:755:ILE:HG13	1.84	0.60
1:A:1825:HIS:ND1	1:A:1825:HIS:O	2.34	0.60
1:A:2204:HIS:HB3	1:A:2239:PHE:CE2	2.37	0.60
1:C:168:ASP:HB3	1:C:199:LEU:HD22	1.83	0.60
1:C:299:LEU:HB2	1:C:378:LEU:HG	1.83	0.60
1:E:168:ASP:HB3	1:E:199:LEU:HD22	1.83	0.60
1:E:674:PHE:CD1	2:F:40:ARG:NH1	2.65	0.60
1:E:840:VAL:HG12	1:E:1199:VAL:HG13	1.83	0.60
1:E:2204:HIS:HB3	1:E:2239:PHE:CE2	2.37	0.60
1:E:2460:LEU:HD21	1:G:131:LEU:CB	2.31	0.60
1:E:4031:LEU:HD11	1:E:4044:MET:SD	2.41	0.60
1:G:4898:GLY:HA2	1:G:4901:ILE:HG22	1.84	0.60
1:A:299:LEU:HB2	1:A:378:LEU:HG	1.83	0.60
1:C:533:ASN:OD1	1:C:534:ARG:N	2.34	0.60
1:C:4715:TYR:CE2	1:C:4717:ASP:HB2	2.36	0.60
1:C:4868:ASP:OD1	1:C:4869:GLU:N	2.32	0.60
1:E:812:HIS:HA	1:E:821:LEU:HD13	1.84	0.60
1:E:2924:GLN:O	1:E:2928:LYS:HB2	2.02	0.60
1:E:4715:TYR:CE2	1:E:4717:ASP:HB2	2.36	0.60
1:C:748:LEU:HD13	1:C:755:ILE:HG13	1.84	0.60
1:C:2204:HIS:HB3	1:C:2239:PHE:CE2	2.37	0.60
1:G:669:ASP:HB3	1:G:788:LYS:NZ	2.16	0.60
1:A:467:LYS:O	1:A:470:SER:OG	2.13	0.60
1:A:533:ASN:OD1	1:A:534:ARG:N	2.34	0.60
1:A:1130:GLN:HE21	1:A:1132:TRP:HE1	1.50	0.60
1:A:2924:GLN:HB3	1:A:2928:LYS:HE2	1.83	0.60
1:A:3938:SER:HB2	1:A:4002:LYS:NZ	2.17	0.60
1:C:214:VAL:HA	1:C:341:TYR:CE1	2.36	0.60
1:C:5006:GLN:HA	1:C:5009:TYR:CE2	2.37	0.60
1:E:215:THR:HG22	1:E:273:HIS:HA	1.84	0.60
1:E:1815:LEU:HD11	1:E:1845:VAL:HG21	1.83	0.60
1:E:1856:ASP:H	1:E:1858:ASP:H	1.50	0.60
1:E:4689:THR:OG1	1:E:4690:GLU:OE1	2.20	0.60
1:G:37:LEU:HD11	1:G:47:CYS:SG	2.42	0.60
1:G:4948:GLU:O	1:G:4952:GLU:N	2.33	0.60
1:A:669:ASP:HB3	1:A:788:LYS:NZ	2.17	0.59
1:A:887:ILE:HG21	1:A:962:SER:HB2	1.84	0.59
1:A:1158:ASN:HB3	1:A:1182:ILE:H	1.65	0.59
1:C:37:LEU:HD11	1:C:47:CYS:SG	2.42	0.59
1:C:4689:THR:OG1	1:C:4690:GLU:OE1	2.20	0.59
1:C:4806:ASN:O	1:C:4809:PHE:HB3	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:669:ASP:HB3	1:E:788:LYS:NZ	2.17	0.59
1:A:1514:LEU:HD12	1:A:1514:LEU:N	2.17	0.59
1:C:3771:HIS:HD2	1:C:3812:VAL:HG22	1.65	0.59
1:E:700:GLU:HG3	1:E:707:VAL:HB	1.84	0.59
1:E:1854:PHE:HB3	1:E:1855:GLY:HA2	1.84	0.59
1:E:3959:LYS:HE3	1:E:4018:ASP:HB3	1.84	0.59
1:E:4192:ARG:NH1	1:E:5028:PHE:HB3	2.14	0.59
1:G:2237:CYS:HB2	1:G:2275:VAL:HG22	1.83	0.59
1:A:840:VAL:HG12	1:A:1199:VAL:HG13	1.83	0.59
1:A:1729:SER:O	1:A:1732:SER:OG	2.19	0.59
1:A:3959:LYS:HE3	1:A:4018:ASP:HB3	1.85	0.59
1:A:4896:GLY:HA3	1:G:4892:ARG:NH1	2.17	0.59
1:A:5009:TYR:O	1:A:5013:MET:HG2	2.03	0.59
1:C:1087:ARG:HB3	1:C:1223:PHE:HD1	1.65	0.59
1:E:276:TRP:HA	1:E:316:PHE:HB2	1.85	0.59
1:E:396:GLU:OE2	1:E:474:ARG:HG2	2.03	0.59
1:G:168:ASP:HB3	1:G:199:LEU:HD22	1.83	0.59
1:G:674:PHE:HD1	2:H:40:ARG:HH12	1.47	0.59
1:A:37:LEU:HD11	1:A:47:CYS:SG	2.41	0.59
1:A:80:GLU:OE2	1:G:3935:TRP:O	2.20	0.59
1:A:210:GLU:HB2	1:A:213:TYR:HD2	1.67	0.59
1:A:638:ILE:HG22	1:A:639:ASN:H	1.67	0.59
1:A:2460:LEU:CD1	1:C:178:ARG:NH1	2.65	0.59
1:A:3986:TRP:HZ2	1:A:4040:ILE:HG13	1.66	0.59
1:A:5006:GLN:HA	1:A:5009:TYR:CE2	2.37	0.59
1:C:812:HIS:HA	1:C:821:LEU:HD13	1.84	0.59
1:E:3938:SER:HB2	1:E:4002:LYS:NZ	2.17	0.59
1:E:4141:PHE:HE1	1:E:4178:LEU:HA	1.67	0.59
1:G:215:THR:HG22	1:G:273:HIS:HA	1.84	0.59
1:G:669:ASP:HB3	1:G:788:LYS:HZ1	1.68	0.59
1:G:700:GLU:HG3	1:G:707:VAL:HB	1.85	0.59
1:G:3893:GLU:HA	1:G:3967:GLU:OE2	2.03	0.59
2:H:24:VAL:HG12	2:H:103:LEU:HA	1.85	0.59
1:C:210:GLU:HB2	1:C:213:TYR:HD2	1.67	0.59
1:C:669:ASP:HB3	1:C:788:LYS:NZ	2.17	0.59
1:E:717:ASP:OD2	2:F:7:ILE:HA	2.02	0.59
1:E:4940:PHE:CE1	1:G:4931:ILE:HD11	2.38	0.59
1:G:35:LEU:HD11	1:G:49:LEU:HD13	1.84	0.59
1:G:840:VAL:HG12	1:G:1199:VAL:HG13	1.83	0.59
1:G:1806:ALA:O	1:G:1810:LYS:HG2	2.02	0.59
1:G:4573:ILE:O	1:G:4577:LEU:N	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4979:THR:O	1:G:4984:ASN:N	2.30	0.59
1:C:396:GLU:OE2	1:C:474:ARG:HG2	2.03	0.59
1:C:3670:GLU:O	1:C:3674:ILE:HG12	2.03	0.59
1:E:2768:PHE:HA	1:E:2771:ILE:HD12	1.84	0.59
1:G:1738:LEU:HB2	1:G:2146:PRO:HD3	1.85	0.59
1:G:5009:TYR:O	1:G:5013:MET:HG2	2.01	0.59
1:A:3893:GLU:HA	1:A:3967:GLU:OE2	2.01	0.59
1:G:4919:THR:O	1:G:4923:PHE:HB2	2.01	0.59
1:A:3670:GLU:O	1:A:3674:ILE:HG12	2.03	0.59
1:A:3965:LEU:HA	1:A:3968:TYR:CD2	2.38	0.59
1:A:4141:PHE:HE1	1:A:4178:LEU:HA	1.67	0.59
1:A:4806:ASN:O	1:A:4809:PHE:HB3	2.03	0.59
1:A:4901:ILE:HD13	1:A:4913:ARG:HH21	1.68	0.59
1:C:1130:GLN:HE21	1:C:1132:TRP:HE1	1.51	0.59
1:C:1738:LEU:HB2	1:C:2146:PRO:HD3	1.85	0.59
1:C:3893:GLU:HA	1:C:3967:GLU:OE2	2.01	0.59
1:C:3938:SER:HB2	1:C:4002:LYS:NZ	2.17	0.59
1:C:3986:TRP:HZ2	1:C:4040:ILE:HG13	1.67	0.59
1:E:35:LEU:HD11	1:E:49:LEU:HD13	1.85	0.59
1:C:700:GLU:HG3	1:C:707:VAL:HB	1.85	0.59
1:C:1105:ALA:HB1	1:C:1109:LEU:HD21	1.85	0.59
1:C:3839:CYS:HB2	1:C:3881:THR:HG22	1.85	0.59
1:C:3965:LEU:HA	1:C:3968:TYR:CD2	2.38	0.59
1:E:3965:LEU:HA	1:E:3968:TYR:CD2	2.38	0.59
1:E:3986:TRP:HZ2	1:E:4040:ILE:HG13	1.67	0.59
1:G:299:LEU:HB2	1:G:378:LEU:HG	1.83	0.59
1:G:2924:GLN:O	1:G:2928:LYS:HB2	2.03	0.59
1:G:4035:VAL:HG23	1:G:4036:VAL:H	1.67	0.59
1:G:4689:THR:OG1	1:G:4690:GLU:OE1	2.20	0.59
1:A:195:PHE:HE2	1:G:2358:ILE:HG21	1.67	0.59
1:A:696:PRO:HD2	1:A:829:TYR:HE2	1.67	0.59
1:A:1662:PHE:O	1:A:1666:THR:HG23	2.03	0.59
1:A:2768:PHE:HA	1:A:2771:ILE:HD12	1.85	0.59
1:C:4933:GLN:O	1:C:4937:ILE:HG12	2.03	0.59
1:G:2288:LEU:O	1:G:3849:ARG:HD3	2.02	0.59
1:A:544:LEU:HD11	1:A:578:ILE:HB	1.85	0.58
1:A:2288:LEU:O	1:A:3849:ARG:HD3	2.03	0.58
1:A:3781:GLN:O	1:A:3784:SER:OG	2.19	0.58
1:C:215:THR:HG22	1:C:273:HIS:HA	1.85	0.58
1:C:696:PRO:HD2	1:C:829:TYR:HE2	1.67	0.58
1:C:2460:LEU:HD21	1:E:131:LEU:CB	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4141:PHE:HE1	1:C:4178:LEU:HA	1.67	0.58
1:E:248:GLU:HG3	1:E:372:LEU:HD11	1.85	0.58
1:E:1662:PHE:O	1:E:1666:THR:HG23	2.03	0.58
1:E:3839:CYS:HB2	1:E:3881:THR:HG22	1.85	0.58
1:G:248:GLU:HG3	1:G:372:LEU:HD11	1.85	0.58
1:G:396:GLU:OE2	1:G:474:ARG:HG2	2.03	0.58
1:G:1662:PHE:O	1:G:1666:THR:HG23	2.03	0.58
1:G:4039:MET:HA	1:G:4042:ARG:HE	1.67	0.58
1:A:131:LEU:CB	1:G:2460:LEU:HD21	2.32	0.58
1:A:396:GLU:OE2	1:A:474:ARG:HG2	2.03	0.58
1:A:633:LEU:HD21	1:A:1639:LEU:HD13	1.83	0.58
1:A:812:HIS:HA	1:A:821:LEU:HD13	1.84	0.58
1:A:4190:ILE:HD11	1:A:5026:ASP:HB2	1.85	0.58
1:A:4689:THR:OG1	1:A:4690:GLU:OE1	2.20	0.58
1:C:633:LEU:HD21	1:C:1639:LEU:HD13	1.84	0.58
1:C:1205:GLY:HA2	1:C:1225:PRO:HB2	1.85	0.58
1:C:3959:LYS:HE3	1:C:4018:ASP:HB3	1.85	0.58
1:E:618:GLN:OE1	1:E:1675:ALA:HB2	2.03	0.58
1:G:702:TRP:HE1	2:H:34:LYS:HZ1	1.50	0.58
1:G:812:HIS:HA	1:G:821:LEU:HD13	1.84	0.58
1:G:2294:ASP:O	1:G:2298:VAL:HG23	2.03	0.58
1:G:4007:SER:O	1:G:4010:ILE:HG12	2.02	0.58
1:A:4192:ARG:NH1	1:A:5028:PHE:HB3	2.14	0.58
1:C:887:ILE:HG21	1:C:962:SER:HB2	1.84	0.58
1:C:2288:LEU:O	1:C:3849:ARG:HD3	2.02	0.58
1:C:3781:GLN:O	1:C:3784:SER:OG	2.19	0.58
1:E:3963:ASN:O	1:E:3966:THR:OG1	2.14	0.58
1:G:633:LEU:HD21	1:G:1639:LEU:HD13	1.84	0.58
1:G:1846:SER:O	1:G:1850:VAL:HG23	2.03	0.58
1:A:1806:ALA:O	1:A:1810:LYS:HG2	2.03	0.58
1:A:2452:ARG:NH2	1:C:177:GLU:OE2	2.36	0.58
1:C:1662:PHE:O	1:C:1666:THR:HG23	2.03	0.58
1:C:3926:LEU:O	1:C:3930:ILE:HG12	2.04	0.58
1:C:4581:LYS:HD2	1:E:4856:PHE:HZ	1.66	0.58
1:C:5009:TYR:O	1:C:5013:MET:HG2	2.03	0.58
1:E:633:LEU:HD21	1:E:1639:LEU:HD13	1.84	0.58
1:E:1105:ALA:HB1	1:E:1109:LEU:HD21	1.86	0.58
1:E:1130:GLN:HE21	1:E:1132:TRP:HE1	1.51	0.58
1:G:3889:GLN:NE2	1:G:3963:ASN:OD1	2.31	0.58
1:G:4889:VAL:O	1:G:4893:ALA:N	2.30	0.58
1:A:215:THR:HG22	1:A:273:HIS:HA	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:618:GLN:OE1	1:A:1675:ALA:HB2	2.03	0.58
1:A:2294:ASP:O	1:A:2298:VAL:HG23	2.04	0.58
1:A:2460:LEU:HD21	1:C:131:LEU:CB	2.33	0.58
1:E:748:LEU:HD13	1:E:755:ILE:HG13	1.84	0.58
1:E:1738:LEU:HB2	1:E:2146:PRO:HD3	1.84	0.58
1:E:2288:LEU:O	1:E:3849:ARG:HD3	2.02	0.58
1:G:544:LEU:HD11	1:G:578:ILE:HB	1.85	0.58
1:G:737:LEU:HD11	2:H:7:ILE:HG22	1.85	0.58
1:A:248:GLU:HG3	1:A:372:LEU:HD11	1.86	0.58
1:A:276:TRP:HA	1:A:316:PHE:HB2	1.85	0.58
1:A:1735:ILE:HD12	1:A:1771:LEU:HD12	1.86	0.58
1:A:1738:LEU:HB2	1:A:2146:PRO:HD3	1.85	0.58
1:A:3839:CYS:HB2	1:A:3881:THR:HG22	1.85	0.58
1:A:4770:SER:O	1:A:4772:ASP:N	2.33	0.58
1:C:544:LEU:HD11	1:C:578:ILE:HB	1.85	0.58
1:C:618:GLN:OE1	1:C:1675:ALA:HB2	2.03	0.58
1:E:1806:ALA:O	1:E:1810:LYS:HG2	2.03	0.58
1:E:3670:GLU:O	1:E:3674:ILE:HG12	2.03	0.58
1:G:276:TRP:HA	1:G:316:PHE:HB2	1.84	0.58
1:G:696:PRO:HD2	1:G:829:TYR:HE2	1.67	0.58
1:G:1735:ILE:HD12	1:G:1771:LEU:HD12	1.85	0.58
1:G:2344:GLU:OE2	1:G:2508:ARG:NH2	2.36	0.58
1:G:4910:GLU:HA	1:G:4913:ARG:HG2	1.86	0.58
1:A:674:PHE:CB	2:B:40:ARG:HH12	2.17	0.58
1:C:276:TRP:HA	1:C:316:PHE:HB2	1.85	0.58
1:C:3984:ARG:NH1	1:E:160:GLY:O	2.36	0.58
1:E:4190:ILE:HD11	1:E:5026:ASP:HB2	1.85	0.58
1:A:700:GLU:HG3	1:A:707:VAL:HB	1.85	0.58
1:A:1943:LEU:HA	1:A:1946:PHE:HD2	1.69	0.58
1:C:1439:VAL:HG22	1:C:1562:ILE:HG13	1.86	0.58
1:C:1806:ALA:O	1:C:1810:LYS:HG2	2.02	0.58
1:E:561:LEU:HD21	1:E:598:LYS:HB3	1.86	0.58
1:E:674:PHE:CB	2:F:40:ARG:HH12	2.16	0.58
1:E:1846:SER:O	1:E:1850:VAL:HG23	2.03	0.58
1:G:402:ARG:NH1	1:G:405:HIS:HD2	2.02	0.58
1:G:618:GLN:OE1	1:G:1675:ALA:HB2	2.03	0.58
1:G:623:GLU:OE1	2:H:88:PRO:HA	2.03	0.58
1:G:1130:GLN:HE21	1:G:1132:TRP:HE1	1.51	0.58
1:G:1783:VAL:CG1	2:H:55:VAL:HG12	2.34	0.58
1:G:2125:HIS:NE2	1:G:2129:ASP:OD2	2.37	0.58
1:G:2768:PHE:HA	1:G:2771:ILE:HD12	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:35:LEU:HD11	1:A:49:LEU:HD13	1.84	0.58
1:A:302:VAL:HG21	1:A:306:LYS:HD3	1.86	0.58
1:A:1256:GLU:HG2	1:A:1278:GLY:O	2.04	0.58
1:C:35:LEU:HD11	1:C:49:LEU:HD13	1.85	0.58
1:C:103:TYR:O	1:C:160:GLY:N	2.33	0.58
1:C:4901:ILE:HD13	1:C:4913:ARG:HH21	1.69	0.58
1:E:402:ARG:NH1	1:E:405:HIS:HD2	2.02	0.58
1:G:3931:SER:O	1:G:3934:TYR:HB3	2.04	0.58
1:A:1087:ARG:HB3	1:A:1223:PHE:HD1	1.64	0.58
1:G:4839:MET:O	1:G:4843:LEU:N	2.29	0.58
1:C:2294:ASP:O	1:C:2298:VAL:HG23	2.04	0.57
1:E:4901:ILE:HD13	1:E:4913:ARG:HH21	1.69	0.57
1:E:5009:TYR:O	1:E:5013:MET:HG2	2.03	0.57
1:G:2336:ARG:NH1	1:G:2428:ALA:HA	2.19	0.57
1:A:607:CYS:O	1:A:618:GLN:NE2	2.37	0.57
1:A:1439:VAL:HG22	1:A:1562:ILE:HG13	1.86	0.57
1:A:3963:ASN:O	1:A:3966:THR:OG1	2.14	0.57
1:C:1256:GLU:HG2	1:C:1278:GLY:O	2.04	0.57
1:C:1846:SER:O	1:C:1850:VAL:HG23	2.03	0.57
1:E:696:PRO:HD2	1:E:829:TYR:HE2	1.68	0.57
1:E:2294:ASP:O	1:E:2298:VAL:HG23	2.04	0.57
1:E:3781:GLN:O	1:E:3784:SER:OG	2.19	0.57
1:A:103:TYR:O	1:A:160:GLY:N	2.32	0.57
1:A:1846:SER:O	1:A:1850:VAL:HG23	2.03	0.57
1:A:2344:GLU:OE2	1:A:2508:ARG:NH2	2.37	0.57
1:A:3926:LEU:O	1:A:3930:ILE:HG12	2.04	0.57
1:A:4904:PRO:HA	1:A:4905:ALA:C	2.24	0.57
1:C:248:GLU:HG3	1:C:372:LEU:HD11	1.85	0.57
1:C:2344:GLU:OE2	1:C:2508:ARG:NH2	2.38	0.57
1:E:544:LEU:HD11	1:E:578:ILE:HB	1.85	0.57
1:E:607:CYS:HB3	1:E:618:GLN:HE21	1.69	0.57
1:G:1131:ARG:NH1	1:G:1137:GLU:OE1	2.38	0.57
1:G:3897:ASN:HA	1:G:3900:GLN:HB2	1.86	0.57
1:A:4898:GLY:H	1:G:4892:ARG:HH12	1.52	0.57
1:A:4933:GLN:O	1:A:4937:ILE:HG12	2.05	0.57
1:A:4974:GLY:O	1:A:4977:THR:OG1	2.15	0.57
1:C:1735:ILE:HD12	1:C:1771:LEU:HD12	1.86	0.57
1:C:4190:ILE:HD11	1:C:5026:ASP:HB2	1.85	0.57
1:C:4836:GLN:O	1:C:4839:MET:HG2	2.04	0.57
1:E:4555:LEU:HD11	1:E:4656:LEU:HG	1.87	0.57
1:E:4821:LYS:HD3	1:E:4947:GLN:NE2	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1205:GLY:HA2	1:G:1225:PRO:HB2	1.87	0.57
1:G:2870:GLU:OE2	1:G:2939:ARG:NH2	2.38	0.57
1:A:1783:VAL:CG1	2:B:55:VAL:HG12	2.34	0.57
1:C:4555:LEU:HD11	1:C:4656:LEU:HG	1.86	0.57
1:G:748:LEU:HD13	1:G:755:ILE:HG13	1.85	0.57
1:G:4893:ALA:HB1	1:G:4896:GLY:HA2	1.86	0.57
1:C:402:ARG:NH1	1:C:405:HIS:HD2	2.02	0.57
1:C:4822:THR:O	1:C:4825:THR:HB	2.04	0.57
1:G:302:VAL:HG21	1:G:306:LYS:HD3	1.86	0.57
1:G:565:TYR:O	1:G:569:ILE:HG12	2.05	0.57
1:G:1105:ALA:HB1	1:G:1109:LEU:HD21	1.85	0.57
1:G:4010:ILE:HA	1:G:4013:LEU:HB3	1.85	0.57
1:A:607:CYS:HB3	1:A:618:GLN:HE21	1.69	0.57
1:A:717:ASP:OD2	2:B:7:ILE:HA	2.04	0.57
1:A:880:GLU:HB3	1:A:967:PRO:HG2	1.86	0.57
1:A:1457:TYR:CG	1:A:1458:HIS:N	2.73	0.57
1:A:4893:ALA:HB1	1:A:4896:GLY:HA2	1.87	0.57
1:C:561:LEU:HD21	1:C:598:LYS:HB3	1.86	0.57
1:C:3878:ASP:O	1:C:3881:THR:OG1	2.14	0.57
1:C:4904:PRO:HA	1:C:4905:ALA:C	2.24	0.57
1:E:3878:ASP:O	1:E:3881:THR:OG1	2.14	0.57
1:E:3926:LEU:O	1:E:3930:ILE:HG12	2.03	0.57
1:E:4888:TYR:OH	1:G:4898:GLY:CA	2.53	0.57
1:G:3761:GLN:HA	1:G:3764:LEU:HD12	1.87	0.57
1:A:402:ARG:NH1	1:A:405:HIS:HD2	2.02	0.57
1:C:1457:TYR:CG	1:C:1458:HIS:N	2.73	0.57
1:C:2768:PHE:HA	1:C:2771:ILE:HD12	1.84	0.57
1:C:4793:GLY:HA2	1:C:4796:MET:HG2	1.86	0.57
1:C:4910:GLU:OE2	1:C:4914:VAL:HG21	2.04	0.57
1:E:1131:ARG:NH1	1:E:1137:GLU:OE1	2.38	0.57
1:G:561:LEU:HD21	1:G:598:LYS:HB3	1.87	0.57
1:G:1617:THR:O	1:G:1618:ARG:NH2	2.38	0.57
1:A:229:GLU:HA	1:A:249:GLY:HA2	1.87	0.57
1:A:4793:GLY:HA2	1:A:4796:MET:HG2	1.87	0.57
1:E:103:TYR:OH	1:E:167:ASP:OD2	2.23	0.57
1:E:1439:VAL:HG22	1:E:1562:ILE:HG13	1.86	0.57
1:E:4770:SER:O	1:E:4772:ASP:N	2.33	0.57
1:E:4910:GLU:OE2	1:E:4914:VAL:HG21	2.04	0.57
1:E:4933:GLN:O	1:E:4937:ILE:HG12	2.03	0.57
1:G:210:GLU:HB2	1:G:213:TYR:HD2	1.68	0.57
1:G:1439:VAL:HG22	1:G:1562:ILE:HG13	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4154:VAL:HG22	1:G:4157:ASP:OD2	2.04	0.57
1:A:1695:LEU:HA	1:A:1698:LEU:HD13	1.87	0.57
1:C:921:ASN:O	1:C:925:SER:N	2.26	0.57
1:C:4974:GLY:O	1:C:4977:THR:OG1	2.16	0.57
1:E:643:SER:HA	1:E:782:SER:HA	1.87	0.57
1:E:4836:GLN:O	1:E:4839:MET:HG2	2.05	0.57
1:G:1256:GLU:HG2	1:G:1278:GLY:O	2.04	0.57
1:G:4192:ARG:NH1	1:G:5028:PHE:HB3	2.13	0.57
1:G:4924:VAL:HG13	1:G:4928:LEU:HD12	1.87	0.57
1:A:1131:ARG:NH1	1:A:1137:GLU:OE1	2.38	0.56
1:A:1731:LEU:HA	1:A:1772:ARG:HD3	1.87	0.56
1:A:2098:VAL:O	1:A:2102:VAL:HG23	2.05	0.56
1:A:4822:THR:O	1:A:4825:THR:HB	2.05	0.56
1:C:103:TYR:OH	1:C:167:ASP:OD2	2.23	0.56
1:C:476:SER:O	1:C:480:GLU:HG3	2.05	0.56
1:E:533:ASN:HB3	1:E:536:ASN:HD22	1.70	0.56
1:E:2344:GLU:OE2	1:E:2508:ARG:NH2	2.38	0.56
1:G:1719:HIS:CD2	1:G:1802:ILE:HG23	2.40	0.56
1:A:216:GLY:HA3	1:A:264:PRO:HD3	1.86	0.56
1:A:1439:VAL:O	1:A:1513:ASP:N	2.31	0.56
1:C:302:VAL:HG21	1:C:306:LYS:HD3	1.87	0.56
1:C:3935:TRP:HB2	1:E:76:ARG:HG3	1.87	0.56
1:C:4021:LYS:O	1:C:4025:VAL:HG23	2.06	0.56
1:E:210:GLU:HB2	1:E:213:TYR:HD2	1.67	0.56
1:E:216:GLY:HA3	1:E:264:PRO:HD3	1.87	0.56
1:E:607:CYS:O	1:E:618:GLN:NE2	2.37	0.56
1:G:229:GLU:HA	1:G:249:GLY:HA2	1.87	0.56
1:G:1491:ASN:O	1:G:1493:TYR:N	2.38	0.56
1:G:1731:LEU:HA	1:G:1772:ARG:HD3	1.87	0.56
1:G:4974:GLY:O	1:G:4977:THR:OG1	2.17	0.56
1:A:476:SER:O	1:A:480:GLU:HG3	2.05	0.56
1:A:565:TYR:O	1:A:569:ILE:HG12	2.05	0.56
1:A:1105:ALA:HB1	1:A:1109:LEU:HD21	1.86	0.56
1:A:2059:LEU:HB3	1:A:2062:ARG:HH12	1.68	0.56
1:A:2123:LEU:O	1:A:2127:GLN:HG2	2.05	0.56
1:A:4154:VAL:HG13	1:A:4160:LEU:HD22	1.87	0.56
1:A:4567:LEU:HD12	1:A:4815:ASP:OD2	2.05	0.56
1:A:4853:VAL:O	1:A:4857:ASN:ND2	2.38	0.56
1:C:607:CYS:O	1:C:618:GLN:NE2	2.37	0.56
1:C:674:PHE:CB	2:D:40:ARG:HH12	2.18	0.56
1:C:1943:LEU:HA	1:C:1946:PHE:HD2	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4567:LEU:HD12	1:C:4815:ASP:OD2	2.05	0.56
1:C:4832:HIS:NE2	1:C:4939:ALA:HB1	2.21	0.56
1:E:476:SER:O	1:E:480:GLU:HG3	2.05	0.56
1:E:565:TYR:O	1:E:569:ILE:HG12	2.05	0.56
1:E:1256:GLU:HG2	1:E:1278:GLY:O	2.04	0.56
1:E:1617:THR:O	1:E:1618:ARG:NH2	2.38	0.56
1:E:1862:ILE:O	1:E:1865:MET:HB3	2.06	0.56
1:E:2059:LEU:HB3	1:E:2062:ARG:HH12	1.68	0.56
1:E:4181:ILE:HG12	1:E:4195:PHE:HE1	1.70	0.56
1:E:4853:VAL:O	1:E:4857:ASN:ND2	2.38	0.56
1:E:4904:PRO:HA	1:E:4905:ALA:C	2.24	0.56
1:G:476:SER:O	1:G:480:GLU:HG3	2.05	0.56
1:G:643:SER:HA	1:G:782:SER:HA	1.87	0.56
1:G:1457:TYR:CG	1:G:1458:HIS:N	2.73	0.56
1:G:4806:ASN:O	1:G:4809:PHE:HB3	2.05	0.56
1:G:4904:PRO:HA	1:G:4905:ALA:C	2.25	0.56
1:A:561:LEU:HD21	1:A:598:LYS:HB3	1.86	0.56
1:C:1083:VAL:HG11	1:C:1088:TRP:CZ2	2.41	0.56
1:C:1719:HIS:CD2	1:C:1802:ILE:HG23	2.40	0.56
1:C:4192:ARG:NH1	1:C:5028:PHE:HB3	2.15	0.56
1:E:1457:TYR:CG	1:E:1458:HIS:N	2.73	0.56
1:E:3935:TRP:HB2	1:G:76:ARG:HG3	1.87	0.56
1:E:3984:ARG:NH1	1:G:160:GLY:O	2.35	0.56
1:G:3794:VAL:O	1:G:3797:THR:OG1	2.20	0.56
1:A:103:TYR:OH	1:A:167:ASP:OD2	2.24	0.56
1:A:1719:HIS:CD2	1:A:1802:ILE:HG23	2.40	0.56
1:A:4021:LYS:O	1:A:4025:VAL:HG23	2.06	0.56
1:C:607:CYS:HB3	1:C:618:GLN:HE21	1.70	0.56
1:C:1714:LEU:HA	1:C:1717:SER:HB3	1.88	0.56
1:C:4181:ILE:HG12	1:C:4195:PHE:HE1	1.71	0.56
1:E:224:HIS:HB3	1:E:229:GLU:HG2	1.88	0.56
1:E:4021:LYS:O	1:E:4025:VAL:HG23	2.06	0.56
1:G:1695:LEU:HA	1:G:1698:LEU:HD13	1.87	0.56
1:G:4107:GLU:O	1:G:4111:LEU:N	2.38	0.56
1:A:1294:PRO:HB3	1:A:1547:LYS:HB3	1.88	0.56
1:C:533:ASN:HB3	1:C:536:ASN:HD22	1.70	0.56
1:C:643:SER:HA	1:C:782:SER:HA	1.87	0.56
1:C:1491:ASN:O	1:C:1493:TYR:N	2.38	0.56
1:E:302:VAL:HG21	1:E:306:LYS:HD3	1.86	0.56
1:E:1083:VAL:HG11	1:E:1088:TRP:CZ2	2.40	0.56
1:E:1735:ILE:HD12	1:E:1771:LEU:HD12	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4974:GLY:O	1:E:4977:THR:OG1	2.15	0.56
1:G:103:TYR:OH	1:G:167:ASP:OD2	2.23	0.56
1:G:607:CYS:O	1:G:618:GLN:NE2	2.38	0.56
1:G:1943:LEU:HA	1:G:1946:PHE:HD2	1.71	0.56
1:G:4145:VAL:HG13	1:G:4194:TYR:HB2	1.87	0.56
1:G:4181:ILE:HG12	1:G:4195:PHE:HE1	1.69	0.56
1:G:4864:ASN:HB2	1:G:4902:GLU:HG3	1.88	0.56
1:A:643:SER:HA	1:A:782:SER:HA	1.88	0.56
1:A:4910:GLU:OE2	1:A:4914:VAL:HG21	2.06	0.56
1:C:717:ASP:OD2	2:D:7:ILE:HA	2.05	0.56
1:C:2125:HIS:NE2	1:C:2129:ASP:OD2	2.39	0.56
1:E:2123:LEU:O	1:E:2127:GLN:HG2	2.06	0.56
1:E:4898:GLY:HA2	1:E:4901:ILE:HG22	1.87	0.56
1:G:150:MET:SD	1:G:169:LEU:HD22	2.45	0.56
1:G:216:GLY:HA3	1:G:264:PRO:HD3	1.86	0.56
1:G:4574:ASN:ND2	1:G:4813:LEU:HD23	2.21	0.56
1:A:1714:LEU:HA	1:A:1717:SER:HB3	1.88	0.56
1:A:4172:GLU:HG2	1:A:4175:ARG:NH1	2.20	0.56
1:A:4555:LEU:HD11	1:A:4656:LEU:HG	1.86	0.56
1:C:224:HIS:HB3	1:C:229:GLU:HG2	1.88	0.56
1:C:2098:VAL:O	1:C:2102:VAL:HG23	2.06	0.56
1:C:2212:VAL:HG22	1:C:2260:ASN:HD21	1.71	0.56
1:C:3980:LEU:HD22	1:C:3985:LEU:HD22	1.87	0.56
1:E:1205:GLY:HA2	1:E:1225:PRO:HB2	1.88	0.56
1:E:1731:LEU:HA	1:E:1772:ARG:HD3	1.87	0.56
1:E:2125:HIS:NE2	1:E:2129:ASP:OD2	2.39	0.56
1:E:3793:MET:O	1:E:3797:THR:HG23	2.06	0.56
1:E:3965:LEU:O	1:E:3969:ILE:HD12	2.06	0.56
1:G:224:HIS:HB3	1:G:229:GLU:HG2	1.88	0.56
1:G:3814:GLN:HG3	1:G:3815:LYS:N	2.19	0.56
1:A:670:GLU:HB3	1:A:788:LYS:H	1.71	0.56
1:A:921:ASN:O	1:A:925:SER:N	2.26	0.56
1:A:1491:ASN:O	1:A:1493:TYR:N	2.38	0.56
1:C:565:TYR:O	1:C:569:ILE:HG12	2.05	0.56
1:C:1617:THR:O	1:C:1618:ARG:NH2	2.39	0.56
1:E:150:MET:SD	1:E:169:LEU:HD22	2.45	0.56
1:E:229:GLU:HA	1:E:249:GLY:HA2	1.87	0.56
1:E:2098:VAL:O	1:E:2102:VAL:HG23	2.06	0.56
1:E:2212:VAL:HG22	1:E:2260:ASN:HD21	1.71	0.56
1:E:4007:SER:O	1:E:4010:ILE:HG12	2.05	0.56
1:G:1856:ASP:N	1:G:1857:GLU:HB3	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1862:ILE:O	1:G:1865:MET:HB3	2.06	0.56
1:G:3902:TYR:HE1	1:G:3908:GLY:H	1.54	0.56
1:A:1617:THR:O	1:A:1618:ARG:NH2	2.38	0.56
1:A:4007:SER:O	1:A:4010:ILE:HG12	2.06	0.56
1:C:1585:LYS:HB3	1:C:1587:PRO:HD2	1.88	0.56
1:C:1695:LEU:HA	1:C:1698:LEU:HD13	1.87	0.56
1:C:1856:ASP:N	1:C:1857:GLU:HB3	2.21	0.56
1:C:2137:ALA:HA	1:C:2140:ARG:NH1	2.22	0.56
1:E:1491:ASN:O	1:E:1493:TYR:N	2.38	0.56
1:G:490:CYS:O	1:G:494:LEU:HG	2.06	0.56
1:G:2123:LEU:O	1:G:2127:GLN:HG2	2.06	0.56
1:G:4720:VAL:HA	1:G:4723:LYS:HE2	1.88	0.56
1:A:224:HIS:HB3	1:A:229:GLU:HG2	1.88	0.55
1:A:526:LEU:O	1:A:530:ILE:HG13	2.07	0.55
1:C:880:GLU:HB3	1:C:967:PRO:HG2	1.87	0.55
1:C:1131:ARG:NH1	1:C:1137:GLU:OE1	2.38	0.55
1:C:2358:ILE:HG21	1:E:195:PHE:HE2	1.71	0.55
1:C:3793:MET:O	1:C:3797:THR:HG23	2.06	0.55
1:C:3965:LEU:O	1:C:3969:ILE:HD12	2.05	0.55
1:C:4007:SER:O	1:C:4010:ILE:HG12	2.06	0.55
1:E:4806:ASN:O	1:E:4809:PHE:HB3	2.05	0.55
1:G:2771:ILE:HG23	1:G:2852:ARG:HB2	1.88	0.55
1:A:1708:ARG:HH11	1:A:1712:TYR:HE2	1.54	0.55
1:A:2276:ALA:O	1:A:2280:VAL:HG23	2.06	0.55
2:B:37:ASP:OD1	2:B:38:SER:N	2.39	0.55
1:C:1839:VAL:HB	1:C:1840:PRO:HD3	1.89	0.55
1:C:2059:LEU:HB3	1:C:2062:ARG:HH12	1.69	0.55
1:C:2191:PHE:HE1	1:C:2239:PHE:HD1	1.54	0.55
1:C:2336:ARG:NH1	1:C:2428:ALA:HA	2.21	0.55
1:C:3786:CYS:SG	1:C:3794:VAL:HG22	2.46	0.55
1:C:3806:ASN:OD1	1:C:3807:GLY:N	2.40	0.55
1:C:4230:LYS:HD2	1:C:4959:PHE:O	2.07	0.55
1:E:2137:ALA:HA	1:E:2140:ARG:NH1	2.21	0.55
1:E:2276:ALA:O	1:E:2280:VAL:HG23	2.06	0.55
1:E:4832:HIS:NE2	1:E:4939:ALA:HB1	2.22	0.55
2:H:49:MET:N	2:H:54:GLU:OE2	2.40	0.55
1:A:533:ASN:HB3	1:A:536:ASN:HD22	1.71	0.55
1:A:1245:PHE:HA	1:A:1604:SER:HA	1.88	0.55
1:A:2212:VAL:HG22	1:A:2260:ASN:HD21	1.71	0.55
1:A:4898:GLY:HA2	1:A:4901:ILE:HG22	1.88	0.55
1:C:229:GLU:HA	1:C:249:GLY:HA2	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:826:ILE:HG22	1:C:827:LYS:HG2	1.89	0.55
1:C:4893:ALA:HB1	1:C:4896:GLY:HA2	1.89	0.55
1:E:2771:ILE:HG23	1:E:2852:ARG:HB2	1.87	0.55
2:F:87:HIS:CE1	2:F:90:ILE:HD13	2.42	0.55
1:G:526:LEU:O	1:G:530:ILE:HG13	2.06	0.55
1:G:607:CYS:HB3	1:G:618:GLN:HE21	1.70	0.55
1:G:1125:ASN:ND2	1:G:1130:GLN:O	2.27	0.55
1:A:2137:ALA:HA	1:A:2140:ARG:NH1	2.21	0.55
1:C:150:MET:SD	1:C:169:LEU:HD22	2.46	0.55
1:E:490:CYS:O	1:E:494:LEU:HG	2.07	0.55
1:E:1719:HIS:CD2	1:E:1802:ILE:HG23	2.40	0.55
1:E:1856:ASP:N	1:E:1857:GLU:HB3	2.21	0.55
1:E:4230:LYS:HD2	1:E:4959:PHE:O	2.06	0.55
1:E:4241:THR:O	1:E:4244:GLU:HB3	2.06	0.55
1:E:4888:TYR:OH	1:G:4898:GLY:O	2.23	0.55
1:G:2098:VAL:O	1:G:2102:VAL:HG23	2.06	0.55
1:A:490:CYS:O	1:A:494:LEU:HG	2.07	0.55
1:A:2336:ARG:NH1	1:A:2428:ALA:HA	2.21	0.55
1:A:3760:LYS:O	1:A:3764:LEU:HG	2.07	0.55
1:A:3793:MET:O	1:A:3797:THR:HG23	2.06	0.55
1:A:4181:ILE:HG12	1:A:4195:PHE:HE1	1.71	0.55
1:C:526:LEU:O	1:C:530:ILE:HG13	2.07	0.55
1:C:1930:LYS:O	1:C:1931:LEU:HD12	2.07	0.55
1:C:2758:PHE:HD2	1:C:2809:ILE:HD13	1.72	0.55
1:C:4853:VAL:O	1:C:4857:ASN:ND2	2.38	0.55
2:D:87:HIS:CE1	2:D:90:ILE:HD13	2.42	0.55
1:E:2191:PHE:HE1	1:E:2239:PHE:HD1	1.54	0.55
1:E:2336:ARG:NH1	1:E:2428:ALA:HA	2.22	0.55
1:E:2556:LEU:HD23	1:E:2559:LEU:HD12	1.88	0.55
1:E:4154:VAL:HG13	1:E:4160:LEU:HD22	1.88	0.55
1:G:166:GLY:O	1:G:201:ASN:ND2	2.40	0.55
1:G:533:ASN:HB3	1:G:536:ASN:HD22	1.71	0.55
1:G:1649:ASP:OD1	1:G:1652:GLU:HB2	2.06	0.55
1:G:1937:LEU:HD12	1:G:2116:LEU:HD12	1.88	0.55
1:G:3805:LEU:HB3	1:G:3890:LEU:HB3	1.89	0.55
1:G:4782:VAL:O	1:G:4785:THR:OG1	2.17	0.55
1:A:1141:ARG:HH12	1:A:1169:LEU:CD1	2.19	0.55
1:A:1667:LEU:HD23	1:A:1710:GLY:HA3	1.89	0.55
1:A:2125:HIS:NE2	1:A:2129:ASP:OD2	2.39	0.55
1:A:3786:CYS:SG	1:A:3794:VAL:HG22	2.46	0.55
1:A:3984:ARG:NH1	1:C:160:GLY:O	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4839:MET:CE	1:G:4826:ILE:CG1	2.84	0.55
1:C:490:CYS:O	1:C:494:LEU:HG	2.06	0.55
1:C:1731:LEU:HA	1:C:1772:ARG:HD3	1.87	0.55
1:C:1862:ILE:O	1:C:1865:MET:HB3	2.06	0.55
1:C:2556:LEU:HD23	1:C:2559:LEU:HD12	1.88	0.55
1:E:826:ILE:HG22	1:E:827:LYS:HG2	1.89	0.55
1:E:3786:CYS:SG	1:E:3794:VAL:HG22	2.46	0.55
1:E:4567:LEU:HD12	1:E:4815:ASP:OD2	2.06	0.55
1:G:212:GLY:O	1:G:340:LYS:HA	2.07	0.55
1:G:1083:VAL:HG11	1:G:1088:TRP:CZ2	2.41	0.55
1:A:1862:ILE:O	1:A:1865:MET:HB3	2.06	0.55
1:A:2556:LEU:HD23	1:A:2559:LEU:HD12	1.88	0.55
1:C:2123:LEU:O	1:C:2127:GLN:HG2	2.05	0.55
1:C:4849:TYR:O	1:C:4853:VAL:HG23	2.06	0.55
1:G:1585:LYS:HB3	1:G:1587:PRO:HD2	1.88	0.55
1:G:1714:LEU:HA	1:G:1717:SER:HB3	1.88	0.55
1:A:3806:ASN:OD1	1:A:3807:GLY:N	2.40	0.55
1:A:4077:PHE:CZ	1:A:4125:PHE:HA	2.42	0.55
1:C:2276:ALA:O	1:C:2280:VAL:HG23	2.06	0.55
1:C:4154:VAL:HG13	1:C:4160:LEU:HD22	1.88	0.55
1:C:4241:THR:O	1:C:4244:GLU:HB3	2.07	0.55
1:C:4898:GLY:HA2	1:C:4901:ILE:HG22	1.87	0.55
1:E:887:ILE:HG21	1:E:962:SER:HB2	1.89	0.55
1:E:1783:VAL:CG1	2:F:55:VAL:HG12	2.37	0.55
1:E:1930:LYS:O	1:E:1931:LEU:HD12	2.07	0.55
1:G:1143:TRP:HB3	1:G:1164:LEU:CD1	2.37	0.55
2:H:25:HIS:O	2:H:102:GLU:N	2.35	0.55
1:A:212:GLY:O	1:A:340:LYS:HA	2.07	0.55
1:A:1083:VAL:HG11	1:A:1088:TRP:CZ2	2.42	0.55
1:A:1856:ASP:N	1:A:1857:GLU:HB3	2.21	0.55
1:A:3965:LEU:O	1:A:3969:ILE:HD12	2.07	0.55
1:C:216:GLY:HA3	1:C:264:PRO:HD3	1.87	0.55
1:C:915:GLU:HB3	1:C:923:GLN:HB2	1.89	0.55
1:C:4864:ASN:HB2	1:C:4902:GLU:HG3	1.89	0.55
1:E:669:ASP:HB3	1:E:788:LYS:HZ1	1.72	0.55
1:E:702:TRP:HD1	2:F:34:LYS:NZ	2.01	0.55
1:E:915:GLU:HB3	1:E:923:GLN:HB2	1.88	0.55
1:E:1143:TRP:HB3	1:E:1164:LEU:CD1	2.37	0.55
1:E:2924:GLN:HB3	1:E:2928:LYS:HE2	1.89	0.55
1:G:1245:PHE:HA	1:G:1604:SER:HA	1.89	0.55
1:G:1712:TYR:HD2	1:G:1840:PRO:HB2	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1930:LYS:O	1:G:1931:LEU:HD12	2.07	0.55
1:G:2212:VAL:HG22	1:G:2260:ASN:HD21	1.72	0.55
2:H:27:THR:HG22	2:H:100:ASP:HB3	1.88	0.55
1:A:512:ALA:O	1:A:515:TRP:HB3	2.07	0.55
1:A:915:GLU:HB3	1:A:923:GLN:HB2	1.89	0.55
1:C:790:ARG:HA	1:C:1627:ALA:HA	1.89	0.55
1:C:5027:CYS:HB3	1:C:5030:LYS:HB3	1.89	0.55
1:E:1695:LEU:HA	1:E:1698:LEU:HD13	1.87	0.55
1:E:1714:LEU:HA	1:E:1717:SER:HB3	1.88	0.55
1:E:1810:LYS:HD3	1:E:1813:ARG:HH12	1.72	0.55
1:E:3760:LYS:O	1:E:3764:LEU:HG	2.07	0.55
1:E:5027:CYS:HB3	1:E:5030:LYS:HB3	1.89	0.55
2:F:37:ASP:OD1	2:F:38:SER:N	2.39	0.55
1:G:1839:VAL:HB	1:G:1840:PRO:HD3	1.89	0.55
1:A:1930:LYS:O	1:A:1931:LEU:HD12	2.07	0.54
1:C:1245:PHE:HA	1:C:1604:SER:HA	1.88	0.54
1:E:512:ALA:O	1:E:515:TRP:HB3	2.06	0.54
1:E:674:PHE:HD1	2:F:40:ARG:HH12	1.52	0.54
1:E:1585:LYS:HB3	1:E:1587:PRO:HD2	1.88	0.54
1:E:1714:LEU:O	1:E:1718:ILE:HG12	2.07	0.54
2:F:38:SER:HB3	2:F:41:ASP:OD2	2.07	0.54
1:G:880:GLU:HB3	1:G:967:PRO:HG2	1.87	0.54
1:G:915:GLU:HB3	1:G:923:GLN:HB2	1.89	0.54
1:G:1708:ARG:HH11	1:G:1712:TYR:HE2	1.55	0.54
1:G:2191:PHE:HE1	1:G:2239:PHE:HD1	1.53	0.54
1:G:2276:ALA:O	1:G:2280:VAL:HG23	2.06	0.54
2:H:37:ASP:OD1	2:H:38:SER:N	2.41	0.54
2:H:67:SER:N	2:H:70:GLN:OE1	2.33	0.54
1:A:1243:PRO:HB3	1:A:1606:SER:HA	1.90	0.54
1:A:2771:ILE:HG23	1:A:2852:ARG:HB2	1.89	0.54
1:A:4832:HIS:NE2	1:A:4939:ALA:HB1	2.22	0.54
2:B:38:SER:HB3	2:B:41:ASP:OD2	2.07	0.54
1:C:670:GLU:HB3	1:C:788:LYS:H	1.71	0.54
1:C:1143:TRP:HB3	1:C:1164:LEU:CD1	2.37	0.54
1:E:645:ARG:HD3	1:E:826:ILE:HG13	1.90	0.54
1:E:1245:PHE:HA	1:E:1604:SER:HA	1.89	0.54
1:E:3806:ASN:OD1	1:E:3807:GLY:N	2.40	0.54
1:E:4849:TYR:O	1:E:4853:VAL:HG23	2.06	0.54
1:G:826:ILE:HG22	1:G:827:LYS:HG2	1.89	0.54
1:G:1739:THR:O	1:G:1742:THR:OG1	2.20	0.54
1:G:2059:LEU:HB3	1:G:2062:ARG:HH12	1.69	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2137:ALA:HA	1:G:2140:ARG:NH1	2.22	0.54
1:G:3774:GLY:HA2	1:G:3815:LYS:NZ	2.22	0.54
1:A:4241:THR:O	1:A:4244:GLU:HB3	2.06	0.54
1:A:4666:VAL:HB	1:A:4667:PRO:HD3	1.89	0.54
1:C:37:LEU:HB2	1:C:200:TRP:CZ3	2.43	0.54
1:C:834:PRO:HD2	1:C:838:HIS:HE2	1.73	0.54
1:C:1111:PRO:HG3	1:C:1609:PRO:HG3	1.89	0.54
1:C:1714:LEU:O	1:C:1718:ILE:HG12	2.08	0.54
2:D:37:ASP:OD1	2:D:38:SER:N	2.40	0.54
1:E:622:THR:HB	1:E:626:LEU:HD12	1.89	0.54
1:E:4077:PHE:CZ	1:E:4125:PHE:HA	2.42	0.54
1:E:4928:LEU:O	1:E:4931:ILE:HG22	2.08	0.54
1:G:739:ALA:O	1:G:741:GLU:N	2.40	0.54
1:G:834:PRO:HD2	1:G:838:HIS:HE2	1.72	0.54
1:G:1111:PRO:HG3	1:G:1609:PRO:HG3	1.89	0.54
1:A:4849:TYR:O	1:A:4853:VAL:HG23	2.06	0.54
1:C:645:ARG:HD3	1:C:826:ILE:HG13	1.89	0.54
1:C:1294:PRO:HB3	1:C:1547:LYS:HB3	1.89	0.54
1:C:2496:PRO:HB3	1:C:2552:ARG:HD2	1.90	0.54
2:D:38:SER:HB3	2:D:41:ASP:OD2	2.07	0.54
1:E:526:LEU:O	1:E:530:ILE:HG13	2.07	0.54
1:E:1943:LEU:HA	1:E:1946:PHE:HD2	1.71	0.54
1:E:4864:ASN:HB2	1:E:4902:GLU:HG3	1.90	0.54
1:G:512:ALA:O	1:G:515:TRP:HB3	2.07	0.54
1:G:4222:VAL:HG11	1:G:4950:VAL:HA	1.89	0.54
1:G:4580:TYR:HB2	1:G:4631:PHE:HD1	1.73	0.54
1:A:37:LEU:HB2	1:A:200:TRP:CZ3	2.42	0.54
1:A:1438:ARG:HA	1:A:1514:LEU:HA	1.90	0.54
1:A:1585:LYS:HB3	1:A:1587:PRO:HD2	1.88	0.54
1:A:1810:LYS:HD3	1:A:1813:ARG:HH12	1.71	0.54
1:A:2191:PHE:HE1	1:A:2239:PHE:HD1	1.54	0.54
1:C:166:GLY:O	1:C:201:ASN:ND2	2.40	0.54
1:C:1810:LYS:HD3	1:C:1813:ARG:HH12	1.72	0.54
1:C:4077:PHE:CZ	1:C:4125:PHE:HA	2.42	0.54
1:E:1667:LEU:HD23	1:E:1710:GLY:HA3	1.89	0.54
1:G:670:GLU:HB3	1:G:788:LYS:H	1.71	0.54
1:G:1714:LEU:O	1:G:1718:ILE:HG12	2.07	0.54
1:G:4664:LEU:O	1:G:4667:PRO:HD2	2.08	0.54
1:G:4844:LEU:HD11	1:G:4891:VAL:HG13	1.88	0.54
1:A:645:ARG:HD3	1:A:826:ILE:HG13	1.90	0.54
1:A:650:VAL:O	1:A:777:PHE:N	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1240:LYS:HZ3	1:A:1242:LEU:HB2	1.73	0.54
1:A:1714:LEU:O	1:A:1718:ILE:HG12	2.07	0.54
1:A:2515:GLN:NE2	1:A:2608:MET:O	2.40	0.54
1:C:512:ALA:O	1:C:515:TRP:HB3	2.07	0.54
1:E:103:TYR:O	1:E:160:GLY:N	2.33	0.54
1:E:670:GLU:HB3	1:E:788:LYS:H	1.71	0.54
1:E:790:ARG:HA	1:E:1627:ALA:HA	1.89	0.54
1:E:834:PRO:HD2	1:E:838:HIS:HE2	1.73	0.54
1:E:1649:ASP:OD1	1:E:1652:GLU:HB2	2.07	0.54
1:G:37:LEU:HB2	1:G:200:TRP:CZ3	2.42	0.54
1:G:645:ARG:HD3	1:G:826:ILE:HG13	1.90	0.54
1:G:1294:PRO:HB3	1:G:1547:LYS:HB3	1.90	0.54
1:G:2134:LEU:O	1:G:2138:LEU:HG	2.07	0.54
1:G:4770:SER:O	1:G:4772:ASP:N	2.33	0.54
1:G:4965:SER:HA	1:G:4975:PHE:CD1	2.43	0.54
1:G:5009:TYR:O	1:G:5013:MET:N	2.39	0.54
2:H:58:GLY:HA3	2:H:76:ILE:HG23	1.90	0.54
1:A:3980:LEU:HD22	1:A:3985:LEU:HD22	1.88	0.54
1:A:4720:VAL:HA	1:A:4723:LYS:NZ	2.23	0.54
1:C:116:MET:HA	1:C:139:GLU:HA	1.90	0.54
1:C:563:VAL:O	1:C:567:VAL:HG23	2.08	0.54
1:C:622:THR:HB	1:C:626:LEU:HD12	1.90	0.54
1:C:1808:ARG:HB2	1:C:1854:PHE:CE1	2.43	0.54
1:C:3930:ILE:HG22	1:C:3995:VAL:HG11	1.89	0.54
1:E:212:GLY:O	1:E:340:LYS:HA	2.08	0.54
1:G:103:TYR:O	1:G:160:GLY:N	2.33	0.54
1:G:622:THR:HB	1:G:626:LEU:HD12	1.90	0.54
1:G:688:LEU:HG	1:G:710:ASP:HB3	1.90	0.54
1:G:1808:ARG:HB2	1:G:1854:PHE:CE1	2.43	0.54
1:G:4024:VAL:HA	1:G:4027:LEU:HD12	1.89	0.54
2:H:87:HIS:CE1	2:H:90:ILE:HD13	2.43	0.54
1:A:559:GLY:O	1:A:563:VAL:HG23	2.08	0.54
1:A:1046:LEU:O	1:A:1050:GLY:N	2.41	0.54
1:A:1143:TRP:HB3	1:A:1164:LEU:CD1	2.37	0.54
1:A:4782:VAL:O	1:A:4785:THR:OG1	2.20	0.54
1:A:4921:PHE:CE2	1:G:4892:ARG:HA	2.43	0.54
2:B:87:HIS:CE1	2:B:90:ILE:HD13	2.42	0.54
1:C:212:GLY:O	1:C:340:LYS:HA	2.07	0.54
1:C:1205:GLY:HA3	1:C:1227:ALA:H	1.73	0.54
2:D:38:SER:HB3	2:D:41:ASP:CG	2.28	0.54
1:E:166:GLY:O	1:E:201:ASN:ND2	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1243:PRO:HB3	1:E:1606:SER:HA	1.90	0.54
1:E:1292:SER:HB2	1:E:1602:PRO:HG3	1.90	0.54
1:E:3930:ILE:HG22	1:E:3995:VAL:HG11	1.89	0.54
1:E:4793:GLY:HA2	1:E:4796:MET:HG2	1.90	0.54
2:F:38:SER:HB3	2:F:41:ASP:CG	2.28	0.54
1:G:1729:SER:O	1:G:1732:SER:OG	2.19	0.54
1:A:116:MET:HA	1:A:139:GLU:HA	1.90	0.54
1:A:150:MET:SD	1:A:169:LEU:HD22	2.47	0.54
1:A:166:GLY:O	1:A:201:ASN:ND2	2.40	0.54
1:A:826:ILE:HG22	1:A:827:LYS:HG2	1.90	0.54
1:A:1649:ASP:OD1	1:A:1652:GLU:HB2	2.07	0.54
1:A:1937:LEU:HD12	1:A:2116:LEU:HD12	1.90	0.54
1:C:559:GLY:O	1:C:563:VAL:HG23	2.08	0.54
1:C:705:ASN:OD1	1:C:706:GLY:N	2.41	0.54
1:C:1125:ASN:ND2	1:C:1130:GLN:O	2.26	0.54
1:C:1805:GLU:OE1	1:C:1808:ARG:NE	2.35	0.54
1:C:2771:ILE:HG23	1:C:2852:ARG:HB2	1.89	0.54
1:E:688:LEU:HG	1:E:710:ASP:HB3	1.90	0.54
1:E:4044:MET:HA	1:E:4047:MET:HG2	1.90	0.54
1:E:4666:VAL:HB	1:E:4667:PRO:HD3	1.90	0.54
1:G:1141:ARG:HH12	1:G:1169:LEU:CD1	2.20	0.54
1:G:1243:PRO:HB3	1:G:1606:SER:HA	1.90	0.54
1:G:1810:LYS:HD3	1:G:1813:ARG:HH12	1.72	0.54
1:A:790:ARG:HA	1:A:1627:ALA:HA	1.89	0.54
1:A:4044:MET:HA	1:A:4047:MET:HG2	1.90	0.54
1:A:4161:ARG:HA	1:A:4164:LEU:HB3	1.90	0.54
1:A:5027:CYS:HB3	1:A:5030:LYS:HB3	1.89	0.54
1:C:2134:LEU:O	1:C:2138:LEU:HG	2.08	0.54
1:C:3767:GLN:OE1	1:C:3809:ASN:ND2	2.34	0.54
1:E:705:ASN:OD1	1:E:706:GLY:N	2.41	0.54
1:E:1457:TYR:CZ	1:E:1459:GLN:NE2	2.76	0.54
1:E:1712:TYR:HD2	1:E:1840:PRO:HB2	1.73	0.54
1:E:2758:PHE:HD2	1:E:2809:ILE:HD13	1.72	0.54
1:E:3935:TRP:O	1:G:80:GLU:OE2	2.26	0.54
1:G:705:ASN:OD1	1:G:706:GLY:N	2.41	0.54
1:G:2158:CYS:SG	1:G:2184:ASN:ND2	2.81	0.54
1:G:2927:LEU:HD22	1:G:2937:VAL:HG11	1.90	0.54
1:C:1783:VAL:CG1	2:D:55:VAL:HG12	2.38	0.53
1:C:4044:MET:HA	1:C:4047:MET:HG2	1.90	0.53
1:C:4699:GLY:HA2	1:C:4702:ASP:HB2	1.90	0.53
1:C:4798:MET:SD	1:C:4801:LEU:HD12	2.48	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4823:LEU:HA	1:C:4826:ILE:HD12	1.90	0.53
2:D:18:ARG:NH1	2:D:51:GLY:HA3	2.24	0.53
2:D:25:HIS:CG	2:D:40:ARG:HE	2.27	0.53
1:E:650:VAL:O	1:E:777:PHE:N	2.40	0.53
1:E:1839:VAL:HB	1:E:1840:PRO:HD3	1.90	0.53
1:E:1937:LEU:HD12	1:E:2116:LEU:HD12	1.91	0.53
1:E:4581:LYS:HZ3	1:G:4877:ASP:HA	1.73	0.53
1:A:45:ARG:NH2	1:A:139:GLU:OE2	2.42	0.53
1:A:1808:ARG:HB2	1:A:1854:PHE:CE1	2.43	0.53
1:A:2758:PHE:HD2	1:A:2809:ILE:HD13	1.72	0.53
1:A:4230:LYS:HD2	1:A:4959:PHE:O	2.08	0.53
1:A:4823:LEU:HA	1:A:4826:ILE:HD12	1.90	0.53
1:C:45:ARG:NH2	1:C:139:GLU:OE2	2.42	0.53
1:C:1243:PRO:HB3	1:C:1606:SER:HA	1.90	0.53
1:C:1292:SER:HB2	1:C:1602:PRO:HG3	1.91	0.53
1:C:1562:ILE:HG12	1:C:1563:GLN:O	2.09	0.53
1:E:739:ALA:O	1:E:741:GLU:N	2.42	0.53
1:E:1808:ARG:HB2	1:E:1854:PHE:CE1	2.43	0.53
1:E:3767:GLN:OE1	1:E:3809:ASN:ND2	2.34	0.53
1:G:2095:GLN:HG3	1:G:2127:GLN:OE1	2.08	0.53
1:G:2099:SER:O	1:G:2103:VAL:HG23	2.08	0.53
1:G:3768:SER:HA	1:G:3771:HIS:HB3	1.89	0.53
1:A:1292:SER:HB2	1:A:1602:PRO:HG3	1.90	0.53
1:A:1712:TYR:HD2	1:A:1840:PRO:HB2	1.73	0.53
1:A:1839:VAL:HB	1:A:1840:PRO:HD3	1.90	0.53
1:C:400:ALA:O	1:C:404:ILE:HG13	2.09	0.53
1:C:650:VAL:O	1:C:777:PHE:N	2.41	0.53
1:C:1436:SER:HA	1:C:1515:VAL:O	2.08	0.53
1:C:1649:ASP:OD1	1:C:1652:GLU:HB2	2.07	0.53
1:C:1830:VAL:HG12	1:C:1834:VAL:HA	1.90	0.53
1:C:1833:SER:O	1:C:1835:GLU:N	2.41	0.53
1:C:3760:LYS:O	1:C:3764:LEU:HG	2.07	0.53
1:C:3841:VAL:HG12	1:C:3843:ASP:H	1.73	0.53
1:C:4720:VAL:HA	1:C:4723:LYS:NZ	2.23	0.53
1:E:110:ARG:HG2	1:E:117:TYR:CD1	2.44	0.53
1:E:3841:VAL:HG12	1:E:3843:ASP:H	1.73	0.53
1:E:3980:LEU:HD22	1:E:3985:LEU:HD22	1.89	0.53
1:G:102:LEU:HB2	1:G:105:HIS:HD2	1.72	0.53
1:G:110:ARG:HG2	1:G:117:TYR:CD1	2.43	0.53
1:G:790:ARG:HA	1:G:1627:ALA:HA	1.89	0.53
1:G:1562:ILE:HG12	1:G:1563:GLN:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1667:LEU:HD23	1:G:1710:GLY:HA3	1.90	0.53
1:G:1830:VAL:HG12	1:G:1834:VAL:HA	1.90	0.53
1:G:2214:VAL:HG11	1:G:2229:VAL:HG21	1.90	0.53
1:G:3984:ARG:O	1:G:3986:TRP:N	2.41	0.53
1:A:3930:ILE:HG22	1:A:3995:VAL:HG11	1.89	0.53
2:B:38:SER:HB3	2:B:41:ASP:CG	2.28	0.53
1:C:138:GLN:HG2	1:C:140:ASP:H	1.73	0.53
1:C:739:ALA:O	1:C:741:GLU:N	2.41	0.53
1:C:1141:ARG:HH12	1:C:1169:LEU:CD1	2.21	0.53
1:E:37:LEU:HB2	1:E:200:TRP:CZ3	2.43	0.53
1:E:1125:ASN:ND2	1:E:1130:GLN:O	2.27	0.53
1:E:1294:PRO:HB3	1:E:1547:LYS:HB3	1.91	0.53
1:E:1439:VAL:O	1:E:1512:THR:HB	2.08	0.53
1:E:1477:GLY:HA2	1:E:1483:VAL:HA	1.90	0.53
1:E:1729:SER:O	1:E:1732:SER:OG	2.19	0.53
1:E:4956:THR:O	1:E:4965:SER:N	2.42	0.53
1:G:116:MET:HA	1:G:139:GLU:HA	1.90	0.53
1:G:314:PHE:HE1	1:G:378:LEU:HD21	1.73	0.53
1:G:3905:THR:HG23	1:G:3907:THR:HG23	1.90	0.53
1:G:4242:ILE:O	1:G:4246:GLN:HG2	2.09	0.53
1:A:563:VAL:O	1:A:567:VAL:HG23	2.08	0.53
1:A:705:ASN:OD1	1:A:706:GLY:N	2.41	0.53
1:A:1679:ASN:O	1:A:1683:HIS:ND1	2.41	0.53
1:A:4798:MET:SD	1:A:4801:LEU:HD12	2.49	0.53
1:E:638:ILE:HG22	1:E:639:ASN:N	2.24	0.53
1:E:2099:SER:O	1:E:2103:VAL:HG23	2.09	0.53
1:E:4849:TYR:HA	1:E:4852:THR:HG22	1.90	0.53
1:G:45:ARG:NH2	1:G:139:GLU:OE2	2.42	0.53
1:G:1046:LEU:O	1:G:1050:GLY:N	2.41	0.53
1:G:1240:LYS:O	1:G:1607:ARG:HA	2.09	0.53
1:G:4251:ILE:HG22	1:G:4557:ARG:HH11	1.74	0.53
1:A:24:CYS:SG	1:A:26:ALA:HB2	2.49	0.53
1:A:622:THR:HB	1:A:626:LEU:HD12	1.90	0.53
1:A:2099:SER:O	1:A:2103:VAL:HG23	2.08	0.53
1:A:2496:PRO:HB3	1:A:2552:ARG:HD2	1.90	0.53
2:B:16:PRO:HD3	2:B:66:MET:O	2.09	0.53
1:C:1641:ILE:HG23	1:C:1643:GLU:O	2.09	0.53
1:C:1667:LEU:HD23	1:C:1710:GLY:HA3	1.90	0.53
1:C:1712:TYR:HD2	1:C:1840:PRO:HB2	1.73	0.53
1:C:2099:SER:O	1:C:2103:VAL:HG23	2.09	0.53
1:C:4161:ARG:HA	1:C:4164:LEU:HB3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:138:GLN:HG2	1:E:140:ASP:H	1.73	0.53
1:E:563:VAL:O	1:E:567:VAL:HG23	2.08	0.53
1:E:2496:PRO:HB3	1:E:2552:ARG:HD2	1.91	0.53
1:E:4161:ARG:HA	1:E:4164:LEU:HB3	1.90	0.53
1:E:4699:GLY:HA2	1:E:4702:ASP:HB2	1.91	0.53
1:G:33:LEU:HD21	1:G:51:PRO:HB3	1.91	0.53
1:G:674:PHE:HZ	2:H:71:ARG:NE	2.05	0.53
1:A:400:ALA:O	1:A:404:ILE:HG13	2.09	0.53
1:A:3841:VAL:HG12	1:A:3843:ASP:H	1.73	0.53
1:A:4928:LEU:O	1:A:4931:ILE:HG22	2.08	0.53
1:C:4928:LEU:O	1:C:4931:ILE:HG22	2.08	0.53
1:E:314:PHE:HE1	1:E:378:LEU:HD21	1.74	0.53
1:E:1079:LYS:NZ	1:E:1107:PRO:HB2	2.23	0.53
1:E:1830:VAL:HG12	1:E:1834:VAL:HA	1.91	0.53
1:E:2095:GLN:HG3	1:E:2127:GLN:OE1	2.08	0.53
1:E:2515:GLN:NE2	1:E:2608:MET:O	2.40	0.53
1:G:563:VAL:O	1:G:567:VAL:HG23	2.07	0.53
1:G:636:ASN:OD1	1:G:637:LEU:N	2.42	0.53
1:G:1205:GLY:HA3	1:G:1227:ALA:H	1.74	0.53
1:G:4666:VAL:HB	1:G:4667:PRO:HD3	1.91	0.53
1:A:314:PHE:HE1	1:A:378:LEU:HD21	1.73	0.53
1:A:1111:PRO:HG3	1:A:1609:PRO:HG3	1.89	0.53
1:A:1562:ILE:HG12	1:A:1563:GLN:O	2.09	0.53
1:A:2134:LEU:O	1:A:2138:LEU:HG	2.09	0.53
1:A:4864:ASN:HB2	1:A:4902:GLU:HG3	1.89	0.53
1:C:638:ILE:HG22	1:C:639:ASN:N	2.24	0.53
1:C:688:LEU:HG	1:C:710:ASP:HB3	1.90	0.53
1:C:1079:LYS:NZ	1:C:1107:PRO:HB2	2.24	0.53
1:C:1477:GLY:HA2	1:C:1483:VAL:HA	1.90	0.53
1:C:2924:GLN:HB3	1:C:2928:LYS:HE2	1.91	0.53
1:E:45:ARG:NH2	1:E:139:GLU:OE2	2.42	0.53
1:E:559:GLY:O	1:E:563:VAL:HG23	2.08	0.53
1:E:1111:PRO:HG3	1:E:1609:PRO:HG3	1.90	0.53
1:E:1259:ARG:NH2	1:E:1599:MET:O	2.42	0.53
1:E:1805:GLU:OE1	1:E:1808:ARG:NE	2.35	0.53
1:E:2745:VAL:HG21	1:E:2818:ALA:HB2	1.91	0.53
1:E:4154:VAL:HG13	1:E:4154:VAL:O	2.08	0.53
1:G:400:ALA:O	1:G:404:ILE:HG13	2.09	0.53
1:G:717:ASP:CG	2:H:7:ILE:HA	2.29	0.53
1:G:1641:ILE:HG23	1:G:1643:GLU:O	2.09	0.53
1:G:4702:ASP:O	1:G:4705:VAL:HG12	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:18:ARG:NH1	2:H:51:GLY:HA3	2.23	0.53
1:A:597:HIS:NE2	1:A:598:LYS:NZ	2.57	0.53
1:A:4699:GLY:HA2	1:A:4702:ASP:HB2	1.89	0.53
1:A:4821:LYS:HD3	1:A:4947:GLN:NE2	2.24	0.53
2:B:25:HIS:CG	2:B:40:ARG:HE	2.27	0.53
1:C:1072:VAL:HB	1:C:1607:ARG:HH12	1.74	0.53
2:D:16:PRO:HD3	2:D:66:MET:O	2.09	0.53
1:G:597:HIS:NE2	1:G:598:LYS:NZ	2.57	0.53
1:G:650:VAL:O	1:G:777:PHE:N	2.41	0.53
1:G:2205:GLU:O	1:G:2209:GLU:HG2	2.09	0.53
1:G:2515:GLN:NE2	1:G:2608:MET:O	2.40	0.53
1:G:4004:ALA:HB3	1:G:4110:PHE:HZ	1.73	0.53
1:G:4217:PHE:HZ	1:G:4234:PHE:HA	1.74	0.53
1:A:636:ASN:ND2	2:B:35:LYS:HD3	2.24	0.53
1:A:674:PHE:HD1	2:B:40:ARG:HH12	1.52	0.53
1:A:1125:ASN:ND2	1:A:1130:GLN:O	2.27	0.53
1:A:1805:GLU:OE1	1:A:1808:ARG:NE	2.35	0.53
1:A:2158:CYS:SG	1:A:2184:ASN:ND2	2.82	0.53
1:A:2214:VAL:HG11	1:A:2229:VAL:HG21	1.91	0.53
1:C:110:ARG:HG2	1:C:117:TYR:CD1	2.44	0.53
1:C:2515:GLN:NE2	1:C:2608:MET:O	2.40	0.53
1:C:4965:SER:HA	1:C:4975:PHE:CD1	2.44	0.53
1:E:4004:ALA:HB3	1:E:4110:PHE:HZ	1.74	0.53
2:F:18:ARG:NH1	2:F:51:GLY:HA3	2.24	0.53
1:G:24:CYS:SG	1:G:26:ALA:HB2	2.49	0.53
1:G:2553:TYR:HD1	1:G:2556:LEU:HD12	1.74	0.53
1:G:3771:HIS:HD2	1:G:3812:VAL:HG22	1.72	0.53
1:G:3827:GLY:O	1:G:3831:SER:N	2.41	0.53
1:A:33:LEU:HD21	1:A:51:PRO:HB3	1.91	0.52
1:A:110:ARG:HG2	1:A:117:TYR:CD1	2.43	0.52
1:A:138:GLN:HG2	1:A:140:ASP:H	1.73	0.52
1:A:1294:PRO:HG3	1:A:1549:PHE:HE1	1.75	0.52
1:A:3916:ILE:HA	1:A:3919:THR:HG22	1.91	0.52
1:A:3935:TRP:HB2	1:C:76:ARG:HG3	1.89	0.52
1:A:4154:VAL:HG13	1:A:4154:VAL:O	2.09	0.52
1:C:669:ASP:HB3	1:C:788:LYS:HZ1	1.72	0.52
1:C:1516:ILE:O	1:C:1530:THR:OG1	2.26	0.52
1:C:1705:GLY:O	1:C:1708:ARG:HB3	2.09	0.52
1:C:1729:SER:O	1:C:1732:SER:OG	2.19	0.52
1:C:4666:VAL:HB	1:C:4667:PRO:HD3	1.90	0.52
1:E:116:MET:HA	1:E:139:GLU:HA	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4720:VAL:HA	1:E:4723:LYS:NZ	2.23	0.52
2:F:25:HIS:CG	2:F:40:ARG:HE	2.27	0.52
1:G:1072:VAL:HB	1:G:1607:ARG:HH12	1.74	0.52
1:G:1079:LYS:NZ	1:G:1107:PRO:HB2	2.24	0.52
1:G:1259:ARG:NH2	1:G:1599:MET:O	2.42	0.52
1:G:3882:GLN:HB2	1:G:3957:VAL:HG22	1.91	0.52
1:G:3903:LEU:HD22	1:G:3915:ILE:HD12	1.91	0.52
1:G:4648:LEU:HA	1:G:4651:THR:HB	1.91	0.52
1:A:688:LEU:HG	1:A:710:ASP:HB3	1.90	0.52
1:A:1641:ILE:HG23	1:A:1643:GLU:O	2.09	0.52
2:B:18:ARG:NH1	2:B:51:GLY:HA3	2.24	0.52
1:C:24:CYS:SG	1:C:26:ALA:HB2	2.49	0.52
1:C:4821:LYS:HD3	1:C:4947:GLN:NE2	2.23	0.52
1:E:1046:LEU:O	1:E:1050:GLY:N	2.42	0.52
1:E:2158:CYS:SG	1:E:2184:ASN:ND2	2.82	0.52
1:E:4893:ALA:HB1	1:E:4896:GLY:HA2	1.91	0.52
1:G:37:LEU:HB2	1:G:200:TRP:HZ3	1.75	0.52
1:G:614:VAL:O	1:G:614:VAL:HG13	2.09	0.52
1:G:2377:LEU:HD12	1:G:2468:GLY:HA2	1.92	0.52
1:G:3962:PHE:O	1:G:3966:THR:HG23	2.09	0.52
2:H:25:HIS:CG	2:H:40:ARG:HE	2.26	0.52
1:A:37:LEU:HB2	1:A:200:TRP:HZ3	1.74	0.52
1:A:739:ALA:O	1:A:741:GLU:N	2.42	0.52
1:A:1259:ARG:NH2	1:A:1599:MET:O	2.42	0.52
1:C:1046:LEU:O	1:C:1050:GLY:N	2.41	0.52
1:C:4154:VAL:HG13	1:C:4154:VAL:O	2.09	0.52
1:C:4640:GLU:HB3	1:C:4641:PRO:HD3	1.92	0.52
1:E:638:ILE:HB	1:E:1636:MET:HB2	1.91	0.52
1:E:857:ASP:O	1:E:991:ASN:ND2	2.42	0.52
1:E:4965:SER:HA	1:E:4975:PHE:CD1	2.44	0.52
1:G:1252:HIS:ND1	1:G:1253:PRO:HD2	2.24	0.52
1:G:1856:ASP:H	1:G:1858:ASP:N	2.07	0.52
1:A:1202:LEU:HD21	1:A:1204:LEU:HG	1.90	0.52
1:A:1240:LYS:O	1:A:1607:ARG:HA	2.09	0.52
1:A:4640:GLU:HB3	1:A:4641:PRO:HD3	1.92	0.52
1:A:4956:THR:O	1:A:4965:SER:N	2.43	0.52
1:C:33:LEU:HD21	1:C:51:PRO:HB3	1.91	0.52
1:C:404:ILE:HG12	1:C:478:PHE:HD2	1.74	0.52
1:C:590:LEU:HB2	1:C:599:VAL:HG11	1.92	0.52
1:C:617:ASN:O	1:C:621:ILE:HG12	2.10	0.52
1:C:1294:PRO:HG3	1:C:1549:PHE:HE1	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2205:GLU:O	1:C:2209:GLU:HG2	2.09	0.52
1:C:2922:LYS:C	1:C:2925:GLU:HB2	2.30	0.52
1:C:3768:SER:HA	1:C:3771:HIS:HB3	1.91	0.52
1:C:4810:ALA:O	1:C:4813:LEU:HG	2.10	0.52
1:E:617:ASN:O	1:E:621:ILE:HG12	2.10	0.52
1:E:1205:GLY:HA3	1:E:1227:ALA:H	1.75	0.52
1:E:3916:ILE:HA	1:E:3919:THR:HG22	1.92	0.52
1:G:138:GLN:HG2	1:G:140:ASP:H	1.74	0.52
1:G:617:ASN:O	1:G:621:ILE:HG12	2.10	0.52
1:G:2758:PHE:HD2	1:G:2809:ILE:HD13	1.73	0.52
1:G:3793:MET:O	1:G:3797:THR:HG23	2.09	0.52
1:A:1247:PRO:HA	1:A:1602:PRO:HA	1.92	0.52
1:A:1830:VAL:HG12	1:A:1834:VAL:HA	1.91	0.52
1:A:4221:VAL:O	1:A:4225:GLY:N	2.43	0.52
1:C:622:THR:O	1:C:626:LEU:N	2.42	0.52
1:C:857:ASP:O	1:C:991:ASN:ND2	2.43	0.52
1:C:1259:ARG:NH2	1:C:1599:MET:O	2.42	0.52
1:C:1688:HIS:O	1:C:1688:HIS:ND1	2.43	0.52
1:E:33:LEU:HD21	1:E:51:PRO:HB3	1.92	0.52
1:E:1141:ARG:HH12	1:E:1169:LEU:CD1	2.22	0.52
1:E:1562:ILE:HG12	1:E:1563:GLN:O	2.09	0.52
1:E:2755:ILE:HD13	1:E:2810:LYS:HG2	1.91	0.52
2:F:25:HIS:O	2:F:102:GLU:N	2.39	0.52
1:G:638:ILE:HG22	1:G:639:ASN:N	2.24	0.52
1:G:1477:GLY:HA2	1:G:1483:VAL:HA	1.91	0.52
1:G:2059:LEU:HD22	1:G:2062:ARG:NH1	2.19	0.52
1:G:3841:VAL:HG12	1:G:3843:ASP:H	1.74	0.52
1:A:614:VAL:HG13	1:A:614:VAL:O	2.10	0.52
1:A:636:ASN:OD1	1:A:637:LEU:N	2.42	0.52
1:A:834:PRO:HD2	1:A:838:HIS:HE2	1.73	0.52
1:A:1692:ALA:HA	1:A:1695:LEU:HD12	1.92	0.52
1:A:3877:ASP:O	1:A:3880:PHE:HB3	2.10	0.52
1:C:716:PHE:H	1:C:738:LEU:HD13	1.75	0.52
1:C:1240:LYS:O	1:C:1607:ARG:HA	2.09	0.52
1:C:1856:ASP:H	1:C:1858:ASP:N	2.08	0.52
1:C:3877:ASP:O	1:C:3880:PHE:HB3	2.10	0.52
1:C:4892:ARG:HH12	1:E:4898:GLY:H	1.57	0.52
1:E:1240:LYS:O	1:E:1607:ARG:HA	2.09	0.52
1:E:4146:LEU:O	1:E:4150:LEU:HG	2.09	0.52
1:G:1103:GLY:HA3	1:G:1123:VAL:HA	1.92	0.52
1:A:716:PHE:H	1:A:738:LEU:HD13	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1252:HIS:ND1	1:A:1253:PRO:HD2	2.24	0.52
1:A:1477:GLY:HA2	1:A:1483:VAL:HA	1.90	0.52
1:A:4965:SER:HA	1:A:4975:PHE:CD1	2.45	0.52
1:E:299:LEU:HD23	1:E:357:LEU:HD13	1.92	0.52
1:E:1210:SER:HA	1:E:1214:PHE:HB3	1.92	0.52
1:E:1294:PRO:HG3	1:E:1549:PHE:HE1	1.75	0.52
1:E:2205:GLU:O	1:E:2209:GLU:HG2	2.09	0.52
1:E:2902:HIS:CG	1:E:2903:PRO:HD2	2.45	0.52
1:E:4172:GLU:HG2	1:E:4175:ARG:NH1	2.20	0.52
1:G:857:ASP:O	1:G:991:ASN:ND2	2.43	0.52
1:G:1292:SER:HB2	1:G:1602:PRO:HG3	1.91	0.52
1:G:1692:ALA:HA	1:G:1695:LEU:HD12	1.92	0.52
1:G:1931:LEU:CD2	1:G:1935:VAL:HG11	2.39	0.52
1:A:617:ASN:O	1:A:621:ILE:HG12	2.10	0.52
1:A:1079:LYS:NZ	1:A:1107:PRO:HB2	2.25	0.52
1:A:1103:GLY:HA3	1:A:1123:VAL:HA	1.92	0.52
1:A:1931:LEU:CD2	1:A:1935:VAL:HG11	2.40	0.52
1:A:2205:GLU:O	1:A:2209:GLU:HG2	2.09	0.52
1:A:2377:LEU:HD12	1:A:2468:GLY:HA2	1.92	0.52
1:A:2902:HIS:CG	1:A:2903:PRO:HD2	2.45	0.52
1:C:1937:LEU:HD12	1:C:2116:LEU:HD12	1.91	0.52
1:C:4583:SER:N	1:C:4628:VAL:O	2.41	0.52
1:E:1072:VAL:HB	1:E:1607:ARG:HH12	1.74	0.52
1:E:1688:HIS:ND1	1:E:1688:HIS:O	2.43	0.52
1:E:1705:GLY:O	1:E:1708:ARG:HB3	2.09	0.52
1:E:2924:GLN:O	1:E:2928:LYS:CB	2.58	0.52
1:G:404:ILE:HG12	1:G:478:PHE:HD2	1.74	0.52
1:G:1805:GLU:OE1	1:G:1808:ARG:NE	2.35	0.52
1:G:3813:GLN:NE2	1:G:3890:LEU:O	2.40	0.52
1:G:4210:VAL:O	1:G:4214:LYS:N	2.39	0.52
1:A:638:ILE:HB	1:A:1636:MET:HB2	1.91	0.52
1:A:1072:VAL:HB	1:A:1607:ARG:HH12	1.75	0.52
1:A:1240:LYS:NZ	1:A:1242:LEU:O	2.43	0.52
1:A:2755:ILE:HD13	1:A:2810:LYS:HG2	1.92	0.52
1:A:4839:MET:HE3	1:G:4826:ILE:CG1	2.35	0.52
1:C:614:VAL:HG13	1:C:614:VAL:O	2.09	0.52
1:C:1240:LYS:NZ	1:C:1242:LEU:O	2.43	0.52
1:C:1247:PRO:HA	1:C:1602:PRO:HA	1.91	0.52
1:C:1658:ASP:OD1	1:C:1661:ARG:NH2	2.43	0.52
1:C:2158:CYS:SG	1:C:2184:ASN:ND2	2.82	0.52
1:C:2377:LEU:HD12	1:C:2468:GLY:HA2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:24:CYS:SG	1:E:26:ALA:HB2	2.49	0.52
1:E:252:VAL:HA	1:E:255:HIS:ND1	2.25	0.52
1:E:1252:HIS:ND1	1:E:1253:PRO:HD2	2.25	0.52
1:E:1641:ILE:HG23	1:E:1643:GLU:O	2.09	0.52
1:E:1931:LEU:CD2	1:E:1935:VAL:HG11	2.40	0.52
1:E:2214:VAL:HG11	1:E:2229:VAL:HG21	1.92	0.52
1:E:2377:LEU:HD12	1:E:2468:GLY:HA2	1.92	0.52
1:E:4640:GLU:HB3	1:E:4641:PRO:HD3	1.92	0.52
1:E:4795:TYR:O	1:E:4812:HIS:HE1	1.92	0.52
1:G:233:ILE:HD12	1:G:242:ARG:HB3	1.92	0.52
1:G:299:LEU:HD23	1:G:357:LEU:HD13	1.92	0.52
1:G:921:ASN:O	1:G:925:SER:N	2.26	0.52
1:G:4039:MET:HG3	1:G:4040:ILE:N	2.25	0.52
1:G:4150:LEU:O	1:G:4154:VAL:HG12	2.09	0.52
1:G:4583:SER:N	1:G:4628:VAL:O	2.41	0.52
1:A:3985:LEU:O	1:A:3988:ALA:HB3	2.10	0.52
1:C:4844:LEU:O	1:C:4848:VAL:HG23	2.10	0.52
1:E:3877:ASP:O	1:E:3880:PHE:HB3	2.09	0.52
1:E:4651:THR:HG23	1:E:4799:SER:HB3	1.90	0.52
1:G:252:VAL:HA	1:G:255:HIS:ND1	2.25	0.52
1:G:265:LEU:HD22	1:G:309:THR:HG23	1.92	0.52
1:G:1294:PRO:HG3	1:G:1549:PHE:HE1	1.75	0.52
1:G:1833:SER:O	1:G:1835:GLU:N	2.42	0.52
1:G:2902:HIS:CG	1:G:2903:PRO:HD2	2.45	0.52
1:G:4077:PHE:CZ	1:G:4125:PHE:HA	2.44	0.52
1:A:828:GLU:O	1:A:840:VAL:HG23	2.11	0.51
1:A:4651:THR:HG23	1:A:4799:SER:HB3	1.92	0.51
1:A:4795:TYR:O	1:A:4812:HIS:HE1	1.93	0.51
1:C:314:PHE:HE1	1:C:378:LEU:HD21	1.74	0.51
1:C:523:TYR:CE1	1:C:560:ILE:HG12	2.45	0.51
1:C:597:HIS:NE2	1:C:598:LYS:NZ	2.57	0.51
1:C:793:LEU:HB3	1:C:812:HIS:HB2	1.91	0.51
1:C:2902:HIS:CG	1:C:2903:PRO:HD2	2.45	0.51
1:C:4770:SER:O	1:C:4772:ASP:N	2.34	0.51
1:C:4956:THR:O	1:C:4965:SER:N	2.43	0.51
1:E:233:ILE:HD12	1:E:242:ARG:HB3	1.92	0.51
1:E:404:ILE:HG12	1:E:478:PHE:HD2	1.75	0.51
1:E:3768:SER:HA	1:E:3771:HIS:HB3	1.91	0.51
1:G:590:LEU:HB2	1:G:599:VAL:HG11	1.92	0.51
1:G:793:LEU:HB3	1:G:812:HIS:HB2	1.91	0.51
1:G:1734:TYR:OH	1:G:1948:ASP:OD1	2.18	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2922:LYS:O	1:G:2925:GLU:HB2	2.10	0.51
1:A:590:LEU:HB2	1:A:599:VAL:HG11	1.92	0.51
1:A:622:THR:HG21	1:A:1681:VAL:HG13	1.93	0.51
1:A:622:THR:O	1:A:626:LEU:N	2.42	0.51
1:A:1205:GLY:HA3	1:A:1227:ALA:H	1.75	0.51
1:A:2059:LEU:HD22	1:A:2062:ARG:NH1	2.18	0.51
1:A:3767:GLN:OE1	1:A:3809:ASN:ND2	2.34	0.51
1:C:2745:VAL:HG21	1:C:2818:ALA:HB2	1.91	0.51
1:C:2755:ILE:HD13	1:C:2810:LYS:HG2	1.93	0.51
1:E:400:ALA:O	1:E:404:ILE:HG13	2.09	0.51
1:E:597:HIS:NE2	1:E:598:LYS:NZ	2.57	0.51
1:E:614:VAL:O	1:E:614:VAL:HG13	2.10	0.51
1:E:2134:LEU:O	1:E:2138:LEU:HG	2.08	0.51
1:G:1240:LYS:NZ	1:G:1242:LEU:HB2	2.25	0.51
1:G:2556:LEU:HD23	1:G:2559:LEU:HD12	1.91	0.51
1:G:3750:GLU:O	1:G:3754:GLU:N	2.43	0.51
1:G:4031:LEU:HD23	1:G:4153:HIS:CD2	2.45	0.51
1:A:255:HIS:HB3	1:A:257:ARG:HG2	1.93	0.51
1:A:407:THR:HA	1:A:410:LEU:HG	1.92	0.51
1:A:4146:LEU:O	1:A:4150:LEU:HG	2.09	0.51
1:C:252:VAL:HG23	1:C:257:ARG:NE	2.26	0.51
1:C:638:ILE:HB	1:C:1636:MET:HB2	1.90	0.51
1:C:4004:ALA:HB3	1:C:4110:PHE:HZ	1.75	0.51
1:C:4146:LEU:O	1:C:4150:LEU:HG	2.10	0.51
1:E:675:LEU:O	1:E:676:THR:OG1	2.27	0.51
1:E:1103:GLY:HA3	1:E:1123:VAL:HA	1.92	0.51
1:E:2358:ILE:HG21	1:G:195:PHE:HE2	1.75	0.51
1:E:3698:LEU:O	1:E:3702:VAL:HG23	2.10	0.51
1:E:3729:MET:HE2	1:E:3770:LEU:HD13	1.91	0.51
1:G:1240:LYS:NZ	1:G:1242:LEU:O	2.43	0.51
1:G:4150:LEU:HB3	1:G:4160:LEU:HD21	1.92	0.51
2:H:16:PRO:HD3	2:H:66:MET:O	2.10	0.51
1:A:2121:PHE:CD1	1:A:3701:LEU:HD12	2.46	0.51
1:A:4844:LEU:O	1:A:4848:VAL:HG23	2.10	0.51
1:C:407:THR:HA	1:C:410:LEU:HG	1.93	0.51
1:C:3750:GLU:O	1:C:3754:GLU:N	2.43	0.51
1:C:3905:THR:HG23	1:C:3907:THR:HG23	1.91	0.51
1:C:4177:TYR:HA	1:C:4199:GLU:OE2	2.10	0.51
1:C:4795:TYR:O	1:C:4812:HIS:HE1	1.93	0.51
1:C:4826:ILE:HG12	1:E:4839:MET:HE3	1.93	0.51
1:E:37:LEU:HB2	1:E:200:TRP:HZ3	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4782:VAL:O	1:E:4785:THR:OG1	2.21	0.51
1:E:4798:MET:SD	1:E:4801:LEU:HD12	2.50	0.51
1:G:1202:LEU:HD21	1:G:1204:LEU:HG	1.92	0.51
1:G:3670:GLU:O	1:G:3674:ILE:HG12	2.11	0.51
1:G:4645:CYS:O	1:G:4649:LEU:N	2.39	0.51
1:A:233:ILE:HD12	1:A:242:ARG:HB3	1.92	0.51
1:A:1856:ASP:H	1:A:1858:ASP:N	2.07	0.51
1:A:2358:ILE:HG21	1:C:195:PHE:HE2	1.76	0.51
1:A:3727:ASP:O	1:A:3730:ALA:HB3	2.11	0.51
2:B:25:HIS:O	2:B:102:GLU:N	2.38	0.51
2:B:27:THR:HA	2:B:38:SER:HA	1.92	0.51
2:B:58:GLY:HA3	2:B:76:ILE:HG23	1.92	0.51
1:C:1205:GLY:HA3	1:C:1227:ALA:CB	2.40	0.51
1:C:1931:LEU:CD2	1:C:1935:VAL:HG11	2.40	0.51
1:C:3698:LEU:O	1:C:3702:VAL:HG23	2.10	0.51
1:C:4849:TYR:HA	1:C:4852:THR:HG22	1.92	0.51
1:E:523:TYR:CE1	1:E:560:ILE:HG12	2.46	0.51
1:E:1240:LYS:NZ	1:E:1242:LEU:HB2	2.25	0.51
1:E:1658:ASP:OD1	1:E:1661:ARG:NH2	2.43	0.51
1:E:1692:ALA:HA	1:E:1695:LEU:HD12	1.92	0.51
1:E:1708:ARG:HH11	1:E:1712:TYR:HE2	1.57	0.51
1:E:1833:SER:O	1:E:1835:GLU:N	2.42	0.51
1:E:2121:PHE:CD1	1:E:3701:LEU:HD12	2.46	0.51
1:E:2495:VAL:HA	1:E:2498:HIS:HD2	1.76	0.51
1:E:4177:TYR:HA	1:E:4199:GLU:OE2	2.10	0.51
1:G:559:GLY:O	1:G:563:VAL:HG23	2.10	0.51
1:G:1688:HIS:ND1	1:G:1688:HIS:O	2.44	0.51
1:A:793:LEU:HB3	1:A:812:HIS:HB2	1.91	0.51
1:A:2305:CYS:HB2	1:A:2325:PRO:HG2	1.93	0.51
1:A:3729:MET:HE2	1:A:3770:LEU:HD13	1.92	0.51
1:C:1202:LEU:HD21	1:C:1204:LEU:HG	1.92	0.51
1:C:1210:SER:HA	1:C:1214:PHE:HB3	1.93	0.51
1:C:1708:ARG:HH11	1:C:1712:TYR:HE2	1.58	0.51
1:C:2553:TYR:HD1	1:C:2556:LEU:HD12	1.76	0.51
1:E:102:LEU:HB2	1:E:105:HIS:HD2	1.72	0.51
1:E:636:ASN:OD1	1:E:637:LEU:N	2.43	0.51
1:E:1247:PRO:HA	1:E:1602:PRO:HA	1.91	0.51
1:E:2244:ARG:HH11	1:E:2248:ARG:HH21	1.58	0.51
1:E:4107:GLU:HA	1:E:4110:PHE:HB3	1.93	0.51
1:E:4844:LEU:O	1:E:4848:VAL:HG23	2.11	0.51
1:G:638:ILE:HB	1:G:1636:MET:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1210:SER:HA	1:G:1214:PHE:HB3	1.93	0.51
1:G:4146:LEU:O	1:G:4150:LEU:HG	2.09	0.51
1:A:113:HIS:CE1	1:A:402:ARG:HB3	2.46	0.51
1:A:132:ALA:HB1	1:A:193:ALA:O	2.11	0.51
1:A:4580:TYR:HB2	1:A:4631:PHE:HD1	1.76	0.51
1:C:113:HIS:CE1	1:C:402:ARG:HB3	2.46	0.51
1:C:173:SER:O	1:C:177:GLU:HA	2.11	0.51
1:C:1115:LEU:HD21	1:C:1123:VAL:HG11	1.93	0.51
1:C:1962:ALA:O	1:C:1966:VAL:HG23	2.11	0.51
1:C:3729:MET:HE2	1:C:3770:LEU:HD13	1.92	0.51
2:D:58:GLY:HA3	2:D:76:ILE:HG23	1.92	0.51
1:E:1240:LYS:NZ	1:E:1242:LEU:O	2.43	0.51
2:F:16:PRO:HD3	2:F:66:MET:O	2.09	0.51
1:G:255:HIS:HB3	1:G:257:ARG:HG2	1.93	0.51
1:A:265:LEU:HD22	1:A:309:THR:HG23	1.93	0.51
1:A:299:LEU:HD23	1:A:357:LEU:HD13	1.92	0.51
1:A:523:TYR:CE1	1:A:560:ILE:HG12	2.45	0.51
1:A:1163:THR:HG22	1:A:1168:VAL:HA	1.93	0.51
1:A:1240:LYS:NZ	1:A:1242:LEU:HB2	2.25	0.51
1:A:1658:ASP:OD1	1:A:1661:ARG:NH2	2.43	0.51
1:A:3750:GLU:O	1:A:3754:GLU:N	2.43	0.51
1:C:1780:PRO:HB2	2:D:42:ARG:NH2	2.25	0.51
1:C:3727:ASP:O	1:C:3730:ALA:HB3	2.11	0.51
1:C:3839:CYS:SG	1:C:3840:SER:N	2.84	0.51
1:C:3935:TRP:O	1:E:80:GLU:OE2	2.28	0.51
1:C:4107:GLU:HA	1:C:4110:PHE:HB3	1.93	0.51
1:C:4651:THR:HG23	1:C:4799:SER:HB3	1.92	0.51
1:C:4892:ARG:HH22	1:E:4920:PHE:HD2	1.57	0.51
1:E:590:LEU:HB2	1:E:599:VAL:HG11	1.93	0.51
1:G:625:LEU:HB3	1:G:632:LEU:HD23	1.93	0.51
1:G:2755:ILE:HD13	1:G:2810:LYS:HG2	1.92	0.51
1:G:4241:THR:O	1:G:4244:GLU:HB3	2.10	0.51
1:G:4665:LYS:O	1:G:4669:VAL:N	2.40	0.51
1:A:252:VAL:HG23	1:A:257:ARG:NE	2.25	0.51
1:A:252:VAL:HA	1:A:255:HIS:ND1	2.25	0.51
1:A:404:ILE:HG12	1:A:478:PHE:HD2	1.75	0.51
1:A:4004:ALA:HB3	1:A:4110:PHE:HZ	1.74	0.51
1:A:4905:ALA:N	1:A:4906:GLY:HA3	2.26	0.51
1:C:37:LEU:HB2	1:C:200:TRP:HZ3	1.75	0.51
1:C:265:LEU:HD22	1:C:309:THR:HG23	1.93	0.51
1:C:1079:LYS:HZ2	1:C:1107:PRO:HB2	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1103:GLY:HA3	1:C:1123:VAL:HA	1.92	0.51
1:C:1240:LYS:HZ3	1:C:1242:LEU:HB2	1.76	0.51
1:E:132:ALA:HB1	1:E:193:ALA:O	2.11	0.51
1:E:793:LEU:HB3	1:E:812:HIS:HB2	1.91	0.51
1:E:921:ASN:O	1:E:925:SER:N	2.26	0.51
1:E:1115:LEU:HD21	1:E:1123:VAL:HG11	1.93	0.51
1:E:1202:LEU:HD21	1:E:1204:LEU:HG	1.92	0.51
1:E:1962:ALA:O	1:E:1966:VAL:HG23	2.11	0.51
1:G:264:PRO:O	1:G:266:ARG:N	2.44	0.51
1:G:523:TYR:CE1	1:G:560:ILE:HG12	2.46	0.51
1:G:1658:ASP:OD1	1:G:1661:ARG:NH2	2.43	0.51
1:G:3847:PHE:HE1	1:G:3946:GLN:HG2	1.75	0.51
1:G:4905:ALA:N	1:G:4906:GLY:HA3	2.26	0.51
1:A:638:ILE:HG22	1:A:639:ASN:N	2.25	0.51
1:A:1833:SER:O	1:A:1835:GLU:N	2.41	0.51
1:C:255:HIS:HB3	1:C:257:ARG:HG2	1.93	0.51
1:C:276:TRP:CD1	1:C:318:VAL:HG23	2.46	0.51
1:C:1252:HIS:ND1	1:C:1253:PRO:HD2	2.25	0.51
1:C:2059:LEU:HD22	1:C:2062:ARG:NH1	2.18	0.51
1:E:1856:ASP:H	1:E:1858:ASP:N	2.08	0.51
1:E:2254:LEU:O	1:E:2258:LEU:HG	2.11	0.51
1:E:2819:TRP:CH2	1:E:2881:ASN:HB2	2.46	0.51
1:E:3750:GLU:O	1:E:3754:GLU:N	2.43	0.51
1:E:4822:THR:O	1:E:4825:THR:HB	2.11	0.51
1:G:173:SER:O	1:G:177:GLU:HA	2.11	0.51
1:G:716:PHE:H	1:G:738:LEU:HD13	1.74	0.51
2:H:14:THR:HG22	2:H:106:LEU:HD12	1.93	0.51
1:A:1077:ALA:HB2	1:A:1190:PRO:HG2	1.94	0.50
1:A:2553:TYR:HD1	1:A:2556:LEU:HD12	1.76	0.50
1:A:2745:VAL:HG21	1:A:2818:ALA:HB2	1.91	0.50
1:A:4151:SER:HA	1:A:4160:LEU:HD21	1.94	0.50
1:C:252:VAL:HA	1:C:255:HIS:ND1	2.25	0.50
1:C:299:LEU:HD23	1:C:357:LEU:HD13	1.92	0.50
1:C:828:GLU:O	1:C:840:VAL:HG23	2.10	0.50
1:C:1240:LYS:NZ	1:C:1242:LEU:HB2	2.26	0.50
1:C:1679:ASN:O	1:C:1683:HIS:ND1	2.41	0.50
1:C:4580:TYR:HB2	1:C:4631:PHE:HD1	1.76	0.50
1:C:4721:LYS:HD3	1:C:4741:LEU:HB3	1.93	0.50
1:C:4905:ALA:N	1:C:4906:GLY:HA3	2.25	0.50
1:E:622:THR:HG21	1:E:1681:VAL:HG13	1.94	0.50
1:E:1810:LYS:HD2	1:E:1813:ARG:HH22	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2553:TYR:HD1	1:E:2556:LEU:HD12	1.76	0.50
1:E:3839:CYS:SG	1:E:3840:SER:N	2.84	0.50
2:F:27:THR:HA	2:F:38:SER:HA	1.93	0.50
1:G:252:VAL:HG23	1:G:257:ARG:NE	2.25	0.50
1:G:626:LEU:HB2	1:G:627:PRO:HD3	1.93	0.50
1:G:1115:LEU:HD21	1:G:1123:VAL:HG11	1.93	0.50
1:G:1247:PRO:HA	1:G:1602:PRO:HA	1.91	0.50
1:G:1810:LYS:HD2	1:G:1813:ARG:HH22	1.76	0.50
1:G:2116:LEU:O	1:G:2120:MET:HG3	2.10	0.50
1:G:2819:TRP:CH2	1:G:2881:ASN:HB2	2.47	0.50
1:G:2890:LYS:HE3	1:G:2894:LEU:HD11	1.93	0.50
1:A:2774:ASN:OD1	1:A:2852:ARG:NE	2.44	0.50
1:A:2819:TRP:CH2	1:A:2881:ASN:HB2	2.46	0.50
1:A:3753:PHE:O	1:A:3757:GLU:N	2.44	0.50
1:A:4177:TYR:HA	1:A:4199:GLU:OE2	2.10	0.50
1:A:4676:GLU:O	1:A:4680:LYS:HG3	2.11	0.50
1:C:1768:THR:O	1:C:1769:THR:OG1	2.22	0.50
1:C:2062:ARG:O	1:C:2065:SER:OG	2.22	0.50
1:C:2254:LEU:O	1:C:2258:LEU:HG	2.11	0.50
1:E:1735:ILE:CD1	1:E:1771:LEU:HD12	2.42	0.50
1:E:3935:TRP:CB	1:G:76:ARG:HG3	2.41	0.50
2:F:58:GLY:HA3	2:F:76:ILE:HG23	1.92	0.50
1:G:394:GLN:HB3	1:G:397:GLU:HG2	1.93	0.50
1:G:588:SER:O	1:G:592:LYS:HG3	2.12	0.50
1:G:3835:LEU:O	1:G:3839:CYS:N	2.43	0.50
1:G:4221:VAL:O	1:G:4225:GLY:N	2.44	0.50
1:G:4876:CYS:HA	1:G:4882:CYS:HB3	1.93	0.50
1:A:173:SER:O	1:A:177:GLU:HA	2.11	0.50
1:A:3768:SER:HA	1:A:3771:HIS:HB3	1.91	0.50
1:C:1692:ALA:HA	1:C:1695:LEU:HD12	1.92	0.50
1:C:2214:VAL:HG11	1:C:2229:VAL:HG21	1.92	0.50
1:C:2495:VAL:HA	1:C:2498:HIS:HD2	1.76	0.50
1:C:2774:ASN:OD1	1:C:2852:ARG:NE	2.44	0.50
1:C:3835:LEU:HD22	1:C:3884:LEU:CD1	2.41	0.50
1:C:3916:ILE:HA	1:C:3919:THR:HG22	1.93	0.50
1:E:173:SER:O	1:E:177:GLU:HA	2.11	0.50
1:E:252:VAL:HG23	1:E:257:ARG:NE	2.26	0.50
1:G:1029:GLU:HA	1:G:1032:LYS:HB2	1.93	0.50
1:G:1253:PRO:O	1:G:1254:HIS:HB2	2.11	0.50
1:G:4578:LEU:HG	1:G:4578:LEU:O	2.12	0.50
1:A:394:GLN:HB3	1:A:397:GLU:HG2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:588:SER:O	1:A:592:LYS:HG3	2.11	0.50
1:A:1166:GLY:HA3	1:A:1216:ILE:HD12	1.93	0.50
1:A:1962:ALA:O	1:A:1966:VAL:HG23	2.11	0.50
1:A:4573:ILE:O	1:A:4577:LEU:HB2	2.11	0.50
1:C:622:THR:HG21	1:C:1681:VAL:HG13	1.93	0.50
1:C:716:PHE:N	1:C:738:LEU:HD13	2.27	0.50
1:E:218:HIS:HE1	1:E:392:ARG:HB2	1.76	0.50
1:E:1163:THR:HG22	1:E:1168:VAL:HA	1.93	0.50
1:E:2774:ASN:OD1	1:E:2852:ARG:NE	2.45	0.50
1:E:3774:GLY:HA2	1:E:3815:LYS:NZ	2.26	0.50
1:G:113:HIS:CE1	1:G:402:ARG:HB3	2.46	0.50
1:G:132:ALA:HB1	1:G:193:ALA:O	2.11	0.50
1:G:622:THR:HG21	1:G:1681:VAL:HG13	1.93	0.50
1:G:828:GLU:O	1:G:840:VAL:HG23	2.11	0.50
1:G:1163:THR:HG22	1:G:1168:VAL:HA	1.93	0.50
1:G:5013:MET:O	1:G:5017:ARG:N	2.40	0.50
1:A:276:TRP:CD1	1:A:318:VAL:HG23	2.47	0.50
1:A:1253:PRO:O	1:A:1254:HIS:HB2	2.12	0.50
1:A:1705:GLY:O	1:A:1708:ARG:HB3	2.11	0.50
1:A:3698:LEU:O	1:A:3702:VAL:HG23	2.10	0.50
1:A:4583:SER:N	1:A:4628:VAL:O	2.41	0.50
1:C:102:LEU:HB2	1:C:105:HIS:HD2	1.72	0.50
1:C:218:HIS:HE1	1:C:392:ARG:HB2	1.76	0.50
1:C:492:ASP:OD1	1:C:546:TRP:NE1	2.43	0.50
1:C:588:SER:O	1:C:592:LYS:HG3	2.11	0.50
1:C:1514:LEU:HD12	1:C:1514:LEU:N	2.26	0.50
1:C:2121:PHE:CD1	1:C:3701:LEU:HD12	2.46	0.50
1:C:2819:TRP:CH2	1:C:2881:ASN:HB2	2.47	0.50
1:E:113:HIS:CE1	1:E:402:ARG:HB3	2.46	0.50
1:E:716:PHE:H	1:E:738:LEU:HD13	1.75	0.50
1:E:3727:ASP:O	1:E:3730:ALA:HB3	2.11	0.50
1:E:3891:LEU:HB3	1:E:3899:PHE:HE2	1.77	0.50
1:E:4905:ALA:N	1:E:4906:GLY:HA3	2.26	0.50
1:G:110:ARG:HG2	1:G:117:TYR:CE1	2.47	0.50
1:A:716:PHE:N	1:A:738:LEU:HD13	2.27	0.50
1:A:1115:LEU:HD21	1:A:1123:VAL:HG11	1.94	0.50
1:A:1210:SER:HA	1:A:1214:PHE:HB3	1.94	0.50
1:A:1688:HIS:ND1	1:A:1688:HIS:O	2.44	0.50
1:A:3835:LEU:HD22	1:A:3884:LEU:CD1	2.42	0.50
1:A:3935:TRP:O	1:C:80:GLU:OE2	2.29	0.50
1:C:675:LEU:O	1:C:676:THR:OG1	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1163:THR:HG22	1:C:1168:VAL:HA	1.93	0.50
1:C:3774:GLY:HA2	1:C:3815:LYS:NZ	2.26	0.50
1:C:3879:GLU:OE2	1:C:3883:ASP:OD2	2.30	0.50
1:C:3935:TRP:CB	1:E:76:ARG:HG3	2.42	0.50
1:C:4221:VAL:O	1:C:4225:GLY:N	2.44	0.50
1:E:42:PHE:HB2	1:E:403:MET:SD	2.52	0.50
1:E:265:LEU:HD22	1:E:309:THR:HG23	1.94	0.50
1:E:276:TRP:CD1	1:E:318:VAL:HG23	2.46	0.50
1:E:622:THR:O	1:E:626:LEU:N	2.42	0.50
1:E:828:GLU:O	1:E:840:VAL:HG23	2.10	0.50
1:E:4906:GLY:H	1:E:4910:GLU:HG3	1.76	0.50
1:G:118:LEU:HA	1:G:137:LEU:HD23	1.94	0.50
1:G:622:THR:O	1:G:626:LEU:N	2.42	0.50
1:G:1679:ASN:O	1:G:1683:HIS:ND1	2.40	0.50
1:G:1962:ALA:O	1:G:1966:VAL:HG23	2.11	0.50
1:G:2254:LEU:O	1:G:2258:LEU:HG	2.11	0.50
1:G:4172:GLU:HG2	1:G:4175:ARG:HH12	1.76	0.50
1:G:4182:GLU:HB2	1:G:4983:HIS:CE1	2.47	0.50
1:G:4984:ASN:O	1:G:4985:LEU:HB3	2.11	0.50
1:A:118:LEU:HA	1:A:137:LEU:HD23	1.94	0.50
1:A:218:HIS:HE1	1:A:392:ARG:HB2	1.76	0.50
1:A:702:TRP:HD1	2:B:34:LYS:NZ	2.04	0.50
1:A:1828:ASP:HB3	1:A:1829:PRO:C	2.32	0.50
1:A:4836:GLN:O	1:A:4839:MET:HG2	2.11	0.50
1:C:3753:PHE:O	1:C:3757:GLU:N	2.44	0.50
1:C:4906:GLY:H	1:C:4910:GLU:HG3	1.77	0.50
1:E:625:LEU:HB3	1:E:632:LEU:HD23	1.94	0.50
1:E:716:PHE:N	1:E:738:LEU:HD13	2.27	0.50
1:E:1166:GLY:HA3	1:E:1216:ILE:HD12	1.94	0.50
1:E:1783:VAL:HG12	2:F:54:GLU:O	2.12	0.50
1:E:4221:VAL:O	1:E:4225:GLY:N	2.44	0.50
1:E:4676:GLU:O	1:E:4680:LYS:HG3	2.12	0.50
1:G:150:MET:HG2	1:G:171:LEU:HD23	1.94	0.50
1:G:702:TRP:CD1	2:H:34:LYS:NZ	2.79	0.50
1:G:2495:VAL:HA	1:G:2498:HIS:HD2	1.77	0.50
1:A:472:ARG:NE	1:A:532:GLY:O	2.45	0.50
1:A:764:VAL:O	1:A:764:VAL:HG12	2.12	0.50
1:A:1780:PRO:HB2	2:B:42:ARG:NH2	2.27	0.50
1:A:2095:GLN:HG3	1:A:2127:GLN:OE1	2.11	0.50
1:A:2254:LEU:O	1:A:2258:LEU:HG	2.12	0.50
1:A:4145:VAL:HG13	1:A:4194:TYR:HD2	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4810:ALA:O	1:A:4813:LEU:HG	2.11	0.50
1:C:233:ILE:HD12	1:C:242:ARG:HB3	1.92	0.50
1:C:4676:GLU:O	1:C:4680:LYS:HG3	2.12	0.50
1:C:4905:ALA:H	1:C:4906:GLY:HA3	1.77	0.50
1:E:407:THR:HA	1:E:410:LEU:HG	1.93	0.50
1:E:588:SER:O	1:E:592:LYS:HG3	2.11	0.50
1:E:1029:GLU:HA	1:E:1032:LYS:HB2	1.94	0.50
1:E:1685:LEU:O	1:E:1689:VAL:HG12	2.12	0.50
1:E:2059:LEU:HD22	1:E:2062:ARG:NH1	2.18	0.50
1:E:2735:PHE:HD2	1:E:2891:LYS:HD2	1.77	0.50
1:G:1166:GLY:HA3	1:G:1216:ILE:HD12	1.94	0.50
1:G:3698:LEU:HB3	1:G:3773:ARG:HE	1.77	0.50
1:G:3727:ASP:O	1:G:3730:ALA:HB3	2.11	0.50
1:A:173:SER:HG	1:A:175:SER:HG	1.57	0.50
1:A:1685:LEU:O	1:A:1689:VAL:HG12	2.12	0.50
1:A:2517:PHE:O	1:A:2521:VAL:HG23	2.12	0.50
1:C:132:ALA:HB1	1:C:193:ALA:O	2.11	0.50
1:C:3985:LEU:O	1:C:3988:ALA:HB3	2.11	0.50
1:C:4979:THR:O	1:C:4984:ASN:N	2.30	0.50
1:E:118:LEU:HA	1:E:137:LEU:HD23	1.94	0.50
1:E:255:HIS:HB3	1:E:257:ARG:HG2	1.93	0.50
1:E:3879:GLU:OE2	1:E:3883:ASP:OD2	2.30	0.50
1:G:1663:HIS:CE1	1:G:1667:LEU:HD11	2.47	0.50
1:G:1705:GLY:O	1:G:1708:ARG:HB3	2.11	0.50
1:G:2496:PRO:HB3	1:G:2552:ARG:HD2	1.92	0.50
1:G:4834:GLY:O	1:G:4837:LEU:HB3	2.12	0.50
1:A:626:LEU:HB2	1:A:627:PRO:HD3	1.93	0.49
1:A:1024:TYR:HB3	1:A:1032:LYS:HD3	1.94	0.49
1:A:1767:VAL:C	1:A:1768:THR:HG1	2.15	0.49
1:A:3774:GLY:HA2	1:A:3815:LYS:NZ	2.27	0.49
1:A:3879:GLU:OE2	1:A:3883:ASP:OD2	2.30	0.49
1:A:3891:LEU:HB3	1:A:3899:PHE:HE2	1.77	0.49
1:A:4107:GLU:HA	1:A:4110:PHE:HB3	1.93	0.49
1:C:472:ARG:NE	1:C:532:GLY:O	2.45	0.49
1:C:1457:TYR:C	1:C:1458:HIS:CG	2.86	0.49
1:C:1810:LYS:HD2	1:C:1813:ARG:HH22	1.76	0.49
1:C:1933:GLU:O	1:C:1936:LYS:HB2	2.12	0.49
1:C:3921:ASP:O	1:C:3924:LEU:HB2	2.12	0.49
1:E:626:LEU:HB2	1:E:627:PRO:HD3	1.93	0.49
1:E:2173:GLN:HG2	1:E:2174:GLU:N	2.19	0.49
1:E:3753:PHE:O	1:E:3757:GLU:N	2.44	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4892:ARG:HH22	1:G:4920:PHE:HD2	1.60	0.49
2:F:14:THR:HG22	2:F:106:LEU:HD12	1.94	0.49
1:G:2066:LEU:O	1:G:2069:THR:OG1	2.30	0.49
1:G:2121:PHE:CD1	1:G:3701:LEU:HD12	2.46	0.49
1:G:2774:ASN:OD1	1:G:2852:ARG:NE	2.45	0.49
1:G:4137:ARG:HD2	1:G:4177:TYR:CZ	2.45	0.49
1:G:4946:GLN:HA	1:G:4949:GLN:HB3	1.94	0.49
1:A:1810:LYS:HD2	1:A:1813:ARG:HH22	1.76	0.49
1:A:2214:VAL:HG11	1:A:2229:VAL:CG2	2.42	0.49
2:B:74:LEU:HD23	2:B:76:ILE:HD11	1.94	0.49
1:C:34:LYS:HB2	1:C:53:SER:HB2	1.94	0.49
1:C:702:TRP:HD1	2:D:34:LYS:NZ	2.04	0.49
1:C:1077:ALA:HB2	1:C:1190:PRO:HG2	1.94	0.49
1:C:1663:HIS:CE1	1:C:1667:LEU:HD11	2.47	0.49
1:E:764:VAL:O	1:E:764:VAL:HG12	2.12	0.49
1:E:1679:ASN:O	1:E:1683:HIS:ND1	2.41	0.49
1:E:1933:GLU:O	1:E:1936:LYS:HB2	2.13	0.49
1:E:2671:GLU:CB	1:E:2913:ALA:H	2.26	0.49
1:E:3835:LEU:HD22	1:E:3884:LEU:CD1	2.42	0.49
2:F:54:GLU:HG3	2:F:55:VAL:HG13	1.94	0.49
1:G:407:THR:HA	1:G:410:LEU:HG	1.93	0.49
1:G:1448:VAL:HG13	1:G:1554:VAL:HA	1.94	0.49
1:A:2890:LYS:HE3	1:A:2894:LEU:HD11	1.94	0.49
1:A:3905:THR:HG23	1:A:3907:THR:HG23	1.92	0.49
1:A:4849:TYR:HA	1:A:4852:THR:HG22	1.92	0.49
1:A:5006:GLN:O	1:A:5010:VAL:HG23	2.12	0.49
1:C:42:PHE:HB2	1:C:403:MET:SD	2.52	0.49
1:C:118:LEU:HA	1:C:137:LEU:HD23	1.94	0.49
1:C:119:SER:O	1:C:136:GLY:N	2.31	0.49
1:C:597:HIS:HB2	1:C:1665:HIS:CD2	2.48	0.49
1:C:1253:PRO:O	1:C:1254:HIS:HB2	2.12	0.49
2:D:27:THR:HA	2:D:38:SER:HA	1.93	0.49
1:E:150:MET:HG2	1:E:171:LEU:HD23	1.95	0.49
1:E:492:ASP:OD1	1:E:546:TRP:NE1	2.43	0.49
1:E:636:ASN:ND2	2:F:35:LYS:HD3	2.27	0.49
1:E:1663:HIS:CE1	1:E:1667:LEU:HD11	2.48	0.49
1:E:1767:VAL:C	1:E:1768:THR:HG1	2.15	0.49
1:E:2517:PHE:O	1:E:2521:VAL:HG23	2.13	0.49
1:E:2890:LYS:HE3	1:E:2894:LEU:HD11	1.94	0.49
1:G:2517:PHE:O	1:G:2521:VAL:HG23	2.13	0.49
1:G:3716:LEU:N	1:G:3789:GLU:OE2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4842:GLY:O	1:G:4846:VAL:HG23	2.13	0.49
1:A:42:PHE:HB2	1:A:403:MET:SD	2.53	0.49
1:A:245:VAL:HG12	1:A:376:ALA:HB3	1.95	0.49
1:A:2173:GLN:OE1	1:A:2173:GLN:N	2.46	0.49
1:C:394:GLN:HB3	1:C:397:GLU:HG2	1.93	0.49
1:C:1029:GLU:HA	1:C:1032:LYS:HB2	1.93	0.49
1:C:1245:PHE:HD2	1:C:1290:ARG:HH11	1.61	0.49
1:C:2890:LYS:HE3	1:C:2894:LEU:HD11	1.94	0.49
1:C:4573:ILE:O	1:C:4577:LEU:HB2	2.11	0.49
1:E:1077:ALA:HB2	1:E:1190:PRO:HG2	1.95	0.49
1:E:1253:PRO:O	1:E:1254:HIS:HB2	2.12	0.49
1:G:516:LYS:HG3	1:G:517:GLU:N	2.27	0.49
1:G:2173:GLN:OE1	1:G:2173:GLN:N	2.45	0.49
1:A:1029:GLU:HA	1:A:1032:LYS:HB2	1.93	0.49
1:A:1457:TYR:C	1:A:1458:HIS:CG	2.86	0.49
1:A:2854:GLY:O	1:A:2856:ASN:ND2	2.46	0.49
1:A:4677:LEU:HA	1:A:4680:LYS:HD2	1.95	0.49
1:C:110:ARG:HG2	1:C:117:TYR:CE1	2.48	0.49
1:C:342:GLY:N	1:C:390:LEU:O	2.46	0.49
1:C:1685:LEU:O	1:C:1689:VAL:HG12	2.13	0.49
1:C:1767:VAL:C	1:C:1768:THR:HG1	2.16	0.49
1:C:4151:SER:HA	1:C:4160:LEU:HD21	1.94	0.49
1:C:4730:ASP:OD1	1:C:4731:ILE:N	2.46	0.49
1:E:597:HIS:HB2	1:E:1665:HIS:CD2	2.47	0.49
1:E:1245:PHE:HD2	1:E:1290:ARG:HH11	1.61	0.49
1:E:2173:GLN:OE1	1:E:2173:GLN:N	2.45	0.49
1:E:3905:THR:HG23	1:E:3907:THR:HG23	1.93	0.49
1:E:5006:GLN:O	1:E:5010:VAL:HG23	2.12	0.49
1:G:42:PHE:HB2	1:G:403:MET:SD	2.52	0.49
1:G:1762:LEU:HD12	1:G:1763:PRO:HD2	1.94	0.49
1:G:2125:HIS:CE1	1:G:3724:ALA:HB1	2.48	0.49
1:G:4905:ALA:H	1:G:4906:GLY:HA3	1.78	0.49
1:A:597:HIS:HB2	1:A:1665:HIS:CD2	2.48	0.49
1:A:639:ASN:ND2	1:A:676:THR:OG1	2.45	0.49
1:A:1933:GLU:O	1:A:1936:LYS:HB2	2.12	0.49
1:A:2420:HIS:ND1	1:A:2423:MET:SD	2.75	0.49
1:A:3662:ILE:O	1:A:3662:ILE:HG22	2.13	0.49
1:C:264:PRO:O	1:C:266:ARG:N	2.44	0.49
1:C:1024:TYR:HB3	1:C:1032:LYS:HD3	1.95	0.49
1:C:1556:PRO:HA	1:C:1561:VAL:HG23	1.93	0.49
1:C:1783:VAL:HG12	2:D:54:GLU:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4642:ALA:O	1:C:4646:LEU:N	2.44	0.49
1:C:4677:LEU:HD23	1:C:4711:PHE:CE1	2.48	0.49
1:C:4688:ILE:HG21	1:C:4728:HIS:HB3	1.95	0.49
1:E:472:ARG:NE	1:E:532:GLY:O	2.46	0.49
1:E:1074:ILE:HA	1:E:1193:SER:HA	1.95	0.49
1:G:34:LYS:HB2	1:G:53:SER:HB2	1.94	0.49
1:G:245:VAL:HG12	1:G:376:ALA:HB3	1.95	0.49
1:G:472:ARG:NE	1:G:532:GLY:O	2.46	0.49
1:G:1141:ARG:NH1	1:G:1169:LEU:HD11	2.26	0.49
1:G:1685:LEU:O	1:G:1689:VAL:HG12	2.12	0.49
1:G:1933:GLU:O	1:G:1936:LYS:HB2	2.12	0.49
1:G:2244:ARG:HH11	1:G:2248:ARG:HH21	1.60	0.49
1:G:2883:HIS:HE1	1:G:2904:LEU:O	1.95	0.49
1:G:4567:LEU:HD12	1:G:4815:ASP:OD2	2.12	0.49
1:A:110:ARG:HG2	1:A:117:TYR:CE1	2.48	0.49
1:A:452:PHE:O	1:A:528:SER:OG	2.31	0.49
1:A:1245:PHE:HD2	1:A:1290:ARG:HH11	1.61	0.49
1:A:1734:TYR:OH	1:A:1948:ASP:OD1	2.19	0.49
1:A:2735:PHE:HD2	1:A:2891:LYS:HD2	1.78	0.49
1:A:3921:ASP:O	1:A:3924:LEU:HB2	2.12	0.49
1:A:4730:ASP:OD1	1:A:4731:ILE:N	2.45	0.49
1:A:4920:PHE:HD2	1:G:4892:ARG:HH22	1.61	0.49
2:B:49:MET:N	2:B:54:GLU:OE2	2.46	0.49
1:C:1828:ASP:HB3	1:C:1829:PRO:C	2.32	0.49
1:C:2095:GLN:HG3	1:C:2127:GLN:OE1	2.11	0.49
1:C:2735:PHE:HD2	1:C:2891:LYS:HD2	1.77	0.49
2:D:74:LEU:HD23	2:D:76:ILE:HD11	1.94	0.49
1:E:1277:TRP:HB2	1:E:1562:ILE:O	2.13	0.49
1:E:1712:TYR:CD2	1:E:1840:PRO:HB2	2.48	0.49
1:E:4573:ILE:O	1:E:4577:LEU:HB2	2.13	0.49
1:E:4574:ASN:ND2	1:E:4813:LEU:HD23	2.27	0.49
1:G:218:HIS:HE1	1:G:392:ARG:HB2	1.76	0.49
1:G:1457:TYR:C	1:G:1458:HIS:CG	2.86	0.49
1:G:1556:PRO:HA	1:G:1561:VAL:HG23	1.93	0.49
1:G:2173:GLN:HG2	1:G:2174:GLU:N	2.20	0.49
1:G:4031:LEU:HD11	1:G:4044:MET:SD	2.53	0.49
1:G:4843:LEU:O	1:G:4847:VAL:HG23	2.13	0.49
1:A:1735:ILE:CD1	1:A:1771:LEU:HD12	2.42	0.49
1:A:3839:CYS:SG	1:A:3840:SER:N	2.84	0.49
1:A:4906:GLY:H	1:A:4910:GLU:HG3	1.77	0.49
1:C:150:MET:HG2	1:C:171:LEU:HD23	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:245:VAL:HG12	1:C:376:ALA:HB3	1.95	0.49
1:C:636:ASN:OD1	1:C:637:LEU:N	2.43	0.49
1:C:1130:GLN:NE2	1:C:1132:TRP:HE1	2.11	0.49
1:C:3891:LEU:HB3	1:C:3899:PHE:HE2	1.77	0.49
1:E:516:LYS:HG3	1:E:517:GLU:N	2.27	0.49
1:E:1457:TYR:C	1:E:1458:HIS:CG	2.86	0.49
1:E:1739:THR:O	1:E:1742:THR:OG1	2.21	0.49
1:E:4055:VAL:HA	1:E:4058:ILE:HG12	1.95	0.49
1:E:4677:LEU:HA	1:E:4680:LYS:HD2	1.94	0.49
1:E:4721:LYS:HD3	1:E:4741:LEU:HB3	1.94	0.49
1:E:4905:ALA:H	1:E:4906:GLY:HA3	1.78	0.49
1:G:276:TRP:CD1	1:G:318:VAL:HG23	2.47	0.49
1:G:451:TYR:HD2	1:G:452:PHE:CE2	2.31	0.49
1:G:458:GLU:HG2	1:G:458:GLU:O	2.13	0.49
1:G:1077:ALA:HB2	1:G:1190:PRO:HG2	1.94	0.49
1:G:4027:LEU:O	1:G:4031:LEU:HD13	2.13	0.49
1:G:4666:VAL:O	1:G:4670:ILE:HG12	2.13	0.49
1:G:4688:ILE:HG21	1:G:4728:HIS:HB3	1.94	0.49
2:H:23:VAL:HG12	2:H:104:LEU:HD12	1.95	0.49
1:A:34:LYS:HB2	1:A:53:SER:HB2	1.93	0.49
1:A:625:LEU:HB3	1:A:632:LEU:HD23	1.94	0.49
1:A:636:ASN:HD21	2:B:35:LYS:HD3	1.78	0.49
1:A:1457:TYR:CZ	1:A:1459:GLN:NE2	2.81	0.49
1:A:2244:ARG:HH11	1:A:2248:ARG:HH21	1.59	0.49
1:A:2495:VAL:HA	1:A:2498:HIS:HD2	1.77	0.49
1:A:2671:GLU:CB	1:A:2913:ALA:H	2.26	0.49
1:A:4877:ASP:O	1:G:4581:LYS:CE	2.61	0.49
1:C:626:LEU:HB2	1:C:627:PRO:HD3	1.93	0.49
1:C:1166:GLY:HA3	1:C:1216:ILE:HD12	1.95	0.49
1:C:1448:VAL:HG13	1:C:1554:VAL:HA	1.94	0.49
1:C:2671:GLU:CB	1:C:2913:ALA:H	2.26	0.49
1:E:3985:LEU:O	1:E:3988:ALA:HB3	2.11	0.49
1:E:4242:ILE:O	1:E:4246:GLN:HG2	2.13	0.49
1:E:4888:TYR:OH	1:G:4898:GLY:HA3	2.13	0.49
1:G:1240:LYS:HZ3	1:G:1242:LEU:HB2	1.78	0.49
1:G:3835:LEU:HD21	1:G:3880:PHE:HE2	1.77	0.49
1:G:3927:GLN:NE2	1:G:3988:ALA:O	2.36	0.49
1:A:162:LYS:HB2	1:A:164:ARG:HH12	1.77	0.49
1:A:635:THR:OG1	1:A:1638:ALA:O	2.26	0.49
1:A:1074:ILE:HA	1:A:1193:SER:HA	1.95	0.49
1:A:1448:VAL:HG13	1:A:1554:VAL:HA	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3996:PHE:CE2	1:A:4019:LEU:HD22	2.48	0.49
1:A:4886:HIS:O	1:A:4891:VAL:N	2.42	0.49
1:A:4905:ALA:H	1:A:4906:GLY:HA3	1.78	0.49
1:C:1084:GLN:NE2	1:C:1185:GLY:O	2.46	0.49
1:C:1712:TYR:CD2	1:C:1840:PRO:HB2	2.48	0.49
1:C:4581:LYS:CE	1:E:4877:ASP:O	2.61	0.49
1:E:312:THR:O	1:E:314:PHE:N	2.41	0.49
1:E:394:GLN:HB3	1:E:397:GLU:HG2	1.94	0.49
1:E:1780:PRO:HB2	2:F:42:ARG:NH2	2.28	0.49
1:E:3921:ASP:O	1:E:3924:LEU:HB2	2.12	0.49
1:E:4727:LYS:NZ	1:E:4728:HIS:CE1	2.80	0.49
1:G:312:THR:O	1:G:314:PHE:N	2.41	0.49
1:G:1073:ARG:C	1:G:1074:ILE:HG13	2.33	0.49
1:G:1093:GLU:HA	1:G:1148:VAL:HG13	1.95	0.49
1:G:3713:LYS:O	1:G:3715:LYS:N	2.46	0.49
1:G:4217:PHE:CZ	1:G:4234:PHE:HA	2.48	0.49
1:G:4230:LYS:NZ	1:G:4960:ILE:O	2.45	0.49
1:A:516:LYS:HG3	1:A:517:GLU:N	2.28	0.48
1:C:674:PHE:HD1	2:D:40:ARG:HH12	1.50	0.48
1:C:1074:ILE:HA	1:C:1193:SER:HA	1.95	0.48
1:C:1735:ILE:CD1	1:C:1771:LEU:HD12	2.42	0.48
1:C:2854:GLY:O	1:C:2856:ASN:ND2	2.46	0.48
1:C:3713:LYS:O	1:C:3715:LYS:N	2.46	0.48
1:C:4141:PHE:CE1	1:C:4178:LEU:HA	2.48	0.48
1:C:4145:VAL:HG13	1:C:4194:TYR:HD2	1.77	0.48
1:E:459:LEU:HD11	1:E:463:GLU:OE1	2.12	0.48
1:E:4181:ILE:HG12	1:E:4195:PHE:CE1	2.48	0.48
1:E:4887:MET:HA	1:E:4891:VAL:HG23	1.95	0.48
1:G:1245:PHE:HD2	1:G:1290:ARG:HH11	1.61	0.48
1:G:1780:PRO:HB2	2:H:42:ARG:NH2	2.28	0.48
1:G:4034:ASN:HD21	1:G:4040:ILE:CG2	2.26	0.48
1:A:473:ASN:O	1:A:477:LEU:HG	2.13	0.48
1:A:1663:HIS:CE1	1:A:1667:LEU:HD11	2.47	0.48
1:A:3713:LYS:O	1:A:3715:LYS:N	2.46	0.48
1:A:4721:LYS:HD3	1:A:4741:LEU:HB3	1.95	0.48
1:C:458:GLU:O	1:C:458:GLU:HG2	2.13	0.48
1:C:473:ASN:O	1:C:477:LEU:HG	2.13	0.48
1:C:764:VAL:O	1:C:764:VAL:HG12	2.12	0.48
1:C:1277:TRP:HB2	1:C:1562:ILE:O	2.13	0.48
1:E:1556:PRO:HA	1:E:1561:VAL:HG23	1.94	0.48
1:E:3713:LYS:O	1:E:3715:LYS:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1712:TYR:CD2	1:G:1840:PRO:HB2	2.48	0.48
1:G:1767:VAL:C	1:G:1768:THR:HG1	2.16	0.48
1:G:1828:ASP:HB3	1:G:1829:PRO:C	2.33	0.48
2:H:38:SER:HB3	2:H:41:ASP:CG	2.33	0.48
1:A:264:PRO:O	1:A:266:ARG:N	2.43	0.48
1:A:1641:ILE:HD12	1:A:1642:PRO:HD2	1.96	0.48
1:A:1712:TYR:CD2	1:A:1840:PRO:HB2	2.48	0.48
1:A:3935:TRP:CB	1:C:76:ARG:HG3	2.44	0.48
1:A:4688:ILE:HG21	1:A:4728:HIS:HB3	1.95	0.48
1:A:4826:ILE:O	1:A:4829:SER:HB2	2.13	0.48
2:B:54:GLU:HG3	2:B:55:VAL:HG13	1.94	0.48
1:C:452:PHE:O	1:C:528:SER:OG	2.31	0.48
1:C:5006:GLN:O	1:C:5010:VAL:HG23	2.13	0.48
2:D:54:GLU:HG3	2:D:55:VAL:HG13	1.94	0.48
1:E:34:LYS:HB2	1:E:53:SER:HB2	1.94	0.48
1:E:473:ASN:O	1:E:477:LEU:HG	2.13	0.48
1:E:1295:VAL:O	1:E:1547:LYS:HA	2.13	0.48
1:E:1448:VAL:HG13	1:E:1554:VAL:HA	1.93	0.48
1:E:2214:VAL:HG11	1:E:2229:VAL:CG2	2.44	0.48
2:F:49:MET:N	2:F:54:GLU:OE2	2.46	0.48
1:G:1074:ILE:HA	1:G:1193:SER:HA	1.95	0.48
1:G:2214:VAL:HG11	1:G:2229:VAL:CG2	2.44	0.48
1:A:195:PHE:HE2	1:G:2358:ILE:CG2	2.27	0.48
1:A:1079:LYS:HZ2	1:A:1107:PRO:HB2	1.78	0.48
1:A:4234:PHE:CZ	1:A:4988:TYR:HB2	2.49	0.48
1:A:4642:ALA:O	1:A:4646:LEU:N	2.44	0.48
1:A:4677:LEU:HD23	1:A:4711:PHE:CE1	2.49	0.48
1:C:1830:VAL:HG13	1:C:1837:GLN:HB3	1.95	0.48
1:C:2214:VAL:HG11	1:C:2229:VAL:CG2	2.43	0.48
1:C:2517:PHE:O	1:C:2521:VAL:HG23	2.13	0.48
1:C:4677:LEU:HA	1:C:4680:LYS:HD2	1.94	0.48
1:E:235:ALA:HB2	1:E:257:ARG:HD3	1.95	0.48
1:E:245:VAL:HG12	1:E:376:ALA:HB3	1.95	0.48
1:E:452:PHE:O	1:E:528:SER:OG	2.31	0.48
1:E:4141:PHE:CE1	1:E:4178:LEU:HA	2.48	0.48
1:E:4730:ASP:OD1	1:E:4731:ILE:N	2.46	0.48
1:G:597:HIS:HB2	1:G:1665:HIS:CD2	2.48	0.48
1:G:1024:TYR:HB3	1:G:1032:LYS:HD3	1.94	0.48
1:G:2754:PHE:CZ	1:G:2930:LEU:HD23	2.48	0.48
1:A:458:GLU:HG2	1:A:458:GLU:O	2.13	0.48
1:A:1093:GLU:HA	1:A:1148:VAL:HG13	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4039:MET:HA	1:A:4042:ARG:HH11	1.78	0.48
1:A:4839:MET:HB3	1:G:4823:LEU:CD1	2.44	0.48
2:B:14:THR:HG22	2:B:106:LEU:HD12	1.95	0.48
1:C:1293:LEU:HD23	1:C:1584:ARG:CG	2.44	0.48
1:C:4702:ASP:OD1	1:C:4778:TRP:NE1	2.31	0.48
2:D:14:THR:HG22	2:D:106:LEU:HD12	1.95	0.48
2:D:25:HIS:O	2:D:102:GLU:N	2.39	0.48
1:E:1073:ARG:C	1:E:1074:ILE:HG13	2.34	0.48
1:E:1112:ASP:OD1	1:E:1606:SER:HB3	2.14	0.48
1:E:2854:GLY:O	1:E:2856:ASN:ND2	2.46	0.48
1:E:4979:THR:O	1:E:4984:ASN:N	2.30	0.48
1:G:636:ASN:HD21	2:H:35:LYS:HD3	1.79	0.48
1:G:764:VAL:O	1:G:764:VAL:HG12	2.13	0.48
1:G:1277:TRP:HB2	1:G:1562:ILE:O	2.13	0.48
1:G:2305:CYS:HB2	1:G:2325:PRO:HG2	1.96	0.48
1:G:2854:GLY:O	1:G:2856:ASN:ND2	2.46	0.48
1:G:3729:MET:HE2	1:G:3770:LEU:HD22	1.96	0.48
1:G:4921:PHE:CD1	1:G:4925:ILE:HG13	2.49	0.48
1:G:4951:LYS:O	1:G:4955:GLU:HG2	2.13	0.48
1:G:5027:CYS:HB3	1:G:5030:LYS:HB3	1.95	0.48
1:A:1739:THR:O	1:A:1742:THR:OG1	2.21	0.48
1:C:625:LEU:HB3	1:C:632:LEU:HD23	1.95	0.48
1:C:791:PHE:HB2	1:C:1626:TRP:HB2	1.95	0.48
1:C:2173:GLN:N	1:C:2173:GLN:OE1	2.46	0.48
1:C:2358:ILE:CG2	1:E:195:PHE:HE2	2.27	0.48
1:C:4782:VAL:O	1:C:4785:THR:OG1	2.21	0.48
1:E:519:VAL:HG22	1:E:523:TYR:CE2	2.48	0.48
1:E:3811:GLU:HA	1:E:3814:GLN:HG2	1.95	0.48
1:E:4039:MET:HA	1:E:4042:ARG:HH11	1.78	0.48
1:G:452:PHE:O	1:G:528:SER:OG	2.32	0.48
1:G:519:VAL:HG22	1:G:523:TYR:CE2	2.49	0.48
1:G:1098:GLY:HA3	1:G:1198:GLN:HE21	1.78	0.48
1:G:1112:ASP:OD1	1:G:1606:SER:HB3	2.14	0.48
1:G:1641:ILE:HD12	1:G:1642:PRO:HD2	1.96	0.48
1:G:2142:TYR:HE1	1:G:2196:ASN:HD22	1.62	0.48
1:G:3729:MET:CE	1:G:3770:LEU:HD22	2.44	0.48
1:G:4141:PHE:HE1	1:G:4178:LEU:HA	1.78	0.48
1:G:4640:GLU:HB3	1:G:4641:PRO:HD3	1.95	0.48
1:A:160:GLY:O	1:G:3984:ARG:NH1	2.43	0.48
1:A:519:VAL:HG22	1:A:523:TYR:CE2	2.48	0.48
1:A:1073:ARG:C	1:A:1074:ILE:HG13	2.34	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1830:VAL:HG13	1:A:1837:GLN:HB3	1.96	0.48
1:C:355:LEU:HB2	1:C:378:LEU:HB3	1.96	0.48
1:C:1098:GLY:HA3	1:C:1198:GLN:HE21	1.78	0.48
1:C:3835:LEU:O	1:C:3839:CYS:N	2.46	0.48
1:E:107:ILE:H	1:E:148:TRP:H	1.62	0.48
1:E:720:HIS:HB2	1:E:728:ARG:O	2.14	0.48
1:E:1828:ASP:HB3	1:E:1829:PRO:C	2.33	0.48
1:G:1735:ILE:CD1	1:G:1771:LEU:HD12	2.43	0.48
1:G:2383:ALA:HB1	1:G:2423:MET:SD	2.54	0.48
1:G:3768:SER:O	1:G:3772:THR:HG23	2.13	0.48
1:G:3810:ALA:HA	1:G:3813:GLN:HB2	1.94	0.48
1:G:4730:ASP:OD1	1:G:4731:ILE:N	2.46	0.48
1:A:492:ASP:OD1	1:A:546:TRP:NE1	2.42	0.48
1:A:3882:GLN:HE22	1:A:3956:SER:HB3	1.78	0.48
1:C:235:ALA:HB2	1:C:257:ARG:HD3	1.95	0.48
1:C:1295:VAL:O	1:C:1547:LYS:HA	2.14	0.48
1:C:2870:GLU:OE2	1:C:2939:ARG:NH2	2.47	0.48
1:C:2927:LEU:HD23	1:C:2930:LEU:HD12	1.96	0.48
1:C:3662:ILE:HG22	1:C:3662:ILE:O	2.14	0.48
1:C:4055:VAL:HA	1:C:4058:ILE:HG12	1.95	0.48
1:C:4242:ILE:O	1:C:4246:GLN:HG2	2.13	0.48
1:C:4727:LYS:NZ	1:C:4728:HIS:CE1	2.80	0.48
1:E:1084:GLN:NE2	1:E:1185:GLY:O	2.46	0.48
1:E:1762:LEU:HD12	1:E:1763:PRO:HD2	1.96	0.48
1:E:3662:ILE:HG22	1:E:3662:ILE:O	2.14	0.48
1:E:4580:TYR:HB2	1:E:4631:PHE:HD1	1.78	0.48
1:E:4778:TRP:O	1:E:4782:VAL:HG23	2.14	0.48
1:G:1295:VAL:O	1:G:1547:LYS:HA	2.14	0.48
1:G:2771:ILE:HD11	1:G:2857:PRO:HD2	1.96	0.48
1:G:3780:LEU:HG	1:G:3828:PHE:CE1	2.48	0.48
1:G:3835:LEU:HD22	1:G:3884:LEU:HD13	1.95	0.48
1:A:342:GLY:N	1:A:390:LEU:O	2.46	0.48
1:A:451:TYR:HD2	1:A:452:PHE:CE2	2.32	0.48
1:A:593:HIS:HB3	1:A:596:ASN:HD22	1.79	0.48
1:A:2927:LEU:HD23	1:A:2930:LEU:HD12	1.95	0.48
1:A:4578:LEU:HG	1:A:4578:LEU:O	2.14	0.48
1:A:4727:LYS:NZ	1:A:4728:HIS:CE1	2.80	0.48
1:A:4821:LYS:HD3	1:A:4947:GLN:HE22	1.79	0.48
1:A:4839:MET:HB3	1:G:4823:LEU:HD12	1.96	0.48
1:C:215:THR:O	1:C:218:HIS:HB3	2.14	0.48
1:C:593:HIS:HB3	1:C:596:ASN:HD22	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1073:ARG:C	1:C:1074:ILE:HG13	2.33	0.48
1:C:1093:GLU:HA	1:C:1148:VAL:HG13	1.96	0.48
1:C:4234:PHE:CZ	1:C:4988:TYR:HB2	2.49	0.48
1:E:110:ARG:HG2	1:E:117:TYR:CE1	2.48	0.48
1:E:355:LEU:HB2	1:E:378:LEU:HB3	1.96	0.48
1:E:1641:ILE:HD12	1:E:1642:PRO:HD2	1.96	0.48
1:E:4039:MET:HA	1:E:4042:ARG:HE	1.79	0.48
1:E:4945:ASP:O	1:E:4949:GLN:HB2	2.14	0.48
2:F:74:LEU:HD23	2:F:76:ILE:HD11	1.95	0.48
1:G:178:ARG:HD3	1:G:195:PHE:CE1	2.49	0.48
1:G:785:ALA:HA	1:G:1633:PRO:HD3	1.96	0.48
1:G:791:PHE:HB2	1:G:1626:TRP:HB2	1.95	0.48
1:G:2671:GLU:CB	1:G:2913:ALA:H	2.27	0.48
1:G:2735:PHE:HD2	1:G:2891:LYS:HD2	1.78	0.48
1:G:2883:HIS:NE2	1:G:2906:VAL:O	2.36	0.48
1:G:3980:LEU:HA	1:G:3983:SER:HB2	1.96	0.48
1:G:4779:LYS:O	1:G:4783:ILE:HG13	2.13	0.48
1:G:4844:LEU:O	1:G:4848:VAL:HG23	2.14	0.48
1:A:1556:PRO:HA	1:A:1561:VAL:HG23	1.94	0.48
1:A:3953:LYS:O	1:A:3957:VAL:HG23	2.14	0.48
1:A:4242:ILE:O	1:A:4246:GLN:HG2	2.13	0.48
1:A:4672:LYS:O	1:A:4676:GLU:HG3	2.14	0.48
1:A:4826:ILE:HG12	1:C:4839:MET:HE3	1.96	0.48
1:C:1511:HIS:CE1	1:C:1532:ASN:HD21	2.31	0.48
1:C:1641:ILE:HD12	1:C:1642:PRO:HD2	1.96	0.48
1:C:2121:PHE:CE1	1:C:3701:LEU:HD12	2.49	0.48
1:C:4039:MET:HA	1:C:4042:ARG:HH11	1.78	0.48
2:D:49:MET:N	2:D:54:GLU:OE2	2.46	0.48
1:E:342:GLY:N	1:E:390:LEU:O	2.46	0.48
1:E:4677:LEU:HD23	1:E:4711:PHE:CE1	2.49	0.48
1:G:3980:LEU:HB3	1:G:3985:LEU:HD22	1.96	0.48
1:A:119:SER:O	1:A:136:GLY:N	2.31	0.47
1:A:215:THR:O	1:A:218:HIS:HB3	2.14	0.47
1:A:1931:LEU:HD22	1:A:1935:VAL:HG11	1.96	0.47
1:A:2159:LEU:O	1:A:2162:ILE:HG22	2.14	0.47
1:A:3835:LEU:O	1:A:3839:CYS:N	2.46	0.47
1:A:3923:LEU:HD12	1:A:3961:VAL:HG12	1.96	0.47
1:A:4055:VAL:HA	1:A:4058:ILE:HG12	1.95	0.47
1:A:4141:PHE:CE1	1:A:4178:LEU:HA	2.48	0.47
1:A:4702:ASP:O	1:A:4705:VAL:HG12	2.14	0.47
1:A:4702:ASP:OD1	1:A:4778:TRP:NE1	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3780:LEU:HD11	1:C:3820:LEU:HD21	1.96	0.47
1:C:3811:GLU:HA	1:C:3814:GLN:HG2	1.96	0.47
1:C:3996:PHE:CE2	1:C:4019:LEU:HD22	2.49	0.47
1:E:451:TYR:HD2	1:E:452:PHE:CE2	2.31	0.47
1:E:639:ASN:ND2	1:E:676:THR:OG1	2.45	0.47
1:E:1130:GLN:NE2	1:E:1132:TRP:HE1	2.11	0.47
1:E:4234:PHE:CZ	1:E:4988:TYR:HB2	2.49	0.47
1:E:4833:ASN:OD1	1:E:4836:GLN:HG2	2.14	0.47
1:G:107:ILE:H	1:G:148:TRP:H	1.62	0.47
1:G:636:ASN:ND2	2:H:35:LYS:HD3	2.28	0.47
1:G:2295:LEU:HD22	1:G:2335:LEU:CD2	2.44	0.47
1:G:3996:PHE:CE2	1:G:4019:LEU:HD22	2.49	0.47
1:A:489:ASN:HB3	1:A:493:ARG:HH22	1.78	0.47
1:A:1112:ASP:OD1	1:A:1606:SER:HB3	2.14	0.47
1:A:1762:LEU:HD12	1:A:1763:PRO:HD2	1.95	0.47
1:A:2121:PHE:CE1	1:A:3701:LEU:HD12	2.49	0.47
1:A:2351:ASN:O	1:A:2355:ARG:HG2	2.14	0.47
1:A:2353:VAL:HG12	1:A:2357:LEU:HD11	1.97	0.47
1:A:4898:GLY:HA3	1:G:4888:TYR:OH	2.14	0.47
1:C:16:THR:OG1	1:C:99:ARG:O	2.21	0.47
1:C:107:ILE:H	1:C:148:TRP:H	1.62	0.47
1:C:178:ARG:HD3	1:C:195:PHE:CE1	2.49	0.47
1:C:4181:ILE:HG12	1:C:4195:PHE:CE1	2.48	0.47
1:C:4826:ILE:CG1	1:E:4839:MET:CE	2.92	0.47
1:E:489:ASN:HB3	1:E:493:ARG:HH22	1.78	0.47
1:E:682:LEU:HG	1:E:682:LEU:O	2.14	0.47
1:E:1024:TYR:HB3	1:E:1032:LYS:HD3	1.95	0.47
1:E:1098:GLY:HA3	1:E:1198:GLN:HE21	1.79	0.47
1:E:1293:LEU:HD23	1:E:1584:ARG:CG	2.44	0.47
1:E:4024:VAL:HA	1:E:4027:LEU:HD12	1.97	0.47
1:G:489:ASN:HB3	1:G:493:ARG:HH22	1.79	0.47
1:G:931:THR:HA	1:G:934:ALA:HB3	1.96	0.47
1:G:1084:GLN:NE2	1:G:1185:GLY:O	2.47	0.47
1:G:1252:HIS:CG	1:G:1253:PRO:HD2	2.49	0.47
1:G:2745:VAL:HG21	1:G:2818:ALA:HB2	1.95	0.47
1:G:3775:ALA:O	1:G:3779:VAL:HG23	2.14	0.47
1:A:229:GLU:HG3	1:A:248:GLU:C	2.34	0.47
1:A:2295:LEU:HD22	1:A:2335:LEU:CD2	2.44	0.47
1:A:4039:MET:HA	1:A:4042:ARG:HE	1.79	0.47
1:A:4137:ARG:HD2	1:A:4177:TYR:CZ	2.50	0.47
1:C:531:ARG:HG2	1:C:566:CYS:SG	2.55	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:720:HIS:HB2	1:C:728:ARG:O	2.14	0.47
1:C:1739:THR:O	1:C:1742:THR:OG1	2.21	0.47
1:C:4003:LEU:CB	1:C:4013:LEU:HD12	2.44	0.47
1:C:4563:ARG:NH1	1:C:4815:ASP:OD1	2.47	0.47
1:C:4645:CYS:O	1:C:4649:LEU:N	2.45	0.47
1:E:531:ARG:HG2	1:E:566:CYS:SG	2.55	0.47
1:E:1088:TRP:CZ3	1:E:1226:PHE:HD1	2.33	0.47
1:E:2870:GLU:OE2	1:E:2939:ARG:NH2	2.47	0.47
1:E:3835:LEU:O	1:E:3839:CYS:N	2.47	0.47
1:E:4145:VAL:HG13	1:E:4194:TYR:HD2	1.78	0.47
1:G:531:ARG:HG2	1:G:566:CYS:SG	2.54	0.47
1:G:3970:GLN:HE21	1:G:5004:THR:HA	1.77	0.47
1:G:4234:PHE:HZ	1:G:4988:TYR:HB2	1.77	0.47
1:A:150:MET:HG2	1:A:171:LEU:HD23	1.95	0.47
1:A:178:ARG:HD3	1:A:195:PHE:CE1	2.49	0.47
1:A:355:LEU:HB2	1:A:378:LEU:HB3	1.96	0.47
1:A:857:ASP:O	1:A:991:ASN:ND2	2.47	0.47
1:A:1205:GLY:HA3	1:A:1227:ALA:CB	2.40	0.47
1:A:1729:SER:O	1:A:1733:GLU:HG2	2.14	0.47
1:A:1961:PHE:CZ	1:A:2063:LEU:HD22	2.49	0.47
1:A:2870:GLU:OE2	1:A:2939:ARG:NH2	2.47	0.47
1:C:451:TYR:HD2	1:C:452:PHE:CE2	2.31	0.47
1:C:489:ASN:HB3	1:C:493:ARG:HH22	1.78	0.47
1:C:519:VAL:HG22	1:C:523:TYR:CE2	2.48	0.47
1:C:1762:LEU:HD12	1:C:1763:PRO:HD2	1.96	0.47
1:C:4039:MET:HA	1:C:4042:ARG:HE	1.79	0.47
1:C:4826:ILE:CG1	1:E:4839:MET:HE3	2.44	0.47
1:C:4888:TYR:OH	1:E:4898:GLY:HA3	2.15	0.47
1:E:862:VAL:HA	1:E:930:LYS:NZ	2.30	0.47
1:E:2121:PHE:CE1	1:E:3701:LEU:HD12	2.49	0.47
1:E:3501:ASP:HA	1:G:1224:GLU:OE2	2.13	0.47
1:E:4642:ALA:O	1:E:4646:LEU:N	2.44	0.47
1:G:355:LEU:HB2	1:G:378:LEU:HB3	1.97	0.47
1:G:473:ASN:O	1:G:477:LEU:HG	2.13	0.47
1:G:1457:TYR:CZ	1:G:1459:GLN:NE2	2.82	0.47
1:G:2351:ASN:O	1:G:2355:ARG:HG2	2.14	0.47
1:G:3677:LEU:O	1:G:3698:LEU:N	2.47	0.47
1:G:3959:LYS:HE3	1:G:4018:ASP:HB3	1.96	0.47
1:G:4192:ARG:NH1	1:G:5028:PHE:HD2	2.12	0.47
1:G:4230:LYS:HD2	1:G:4959:PHE:O	2.14	0.47
1:G:5011:TRP:O	1:G:5015:GLN:HG2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:177:GLU:OE2	1:G:2452:ARG:NH2	2.46	0.47
1:A:758:ARG:NE	1:A:804:PRO:HG3	2.29	0.47
1:A:1514:LEU:N	1:A:1514:LEU:CD1	2.77	0.47
1:C:459:LEU:HD11	1:C:463:GLU:OE1	2.13	0.47
1:C:636:ASN:ND2	2:D:35:LYS:HD3	2.28	0.47
1:C:639:ASN:ND2	1:C:676:THR:OG1	2.45	0.47
1:C:1432:THR:N	1:C:1519:LEU:O	2.48	0.47
1:C:2295:LEU:HD22	1:C:2335:LEU:CD2	2.44	0.47
1:C:2351:ASN:O	1:C:2355:ARG:HG2	2.14	0.47
1:C:3902:TYR:HE1	1:C:3908:GLY:H	1.62	0.47
1:C:4578:LEU:O	1:C:4578:LEU:HG	2.15	0.47
2:D:87:HIS:HB3	2:D:91:ILE:H	1.80	0.47
1:E:1729:SER:O	1:E:1733:GLU:HG2	2.14	0.47
1:E:3780:LEU:HD11	1:E:3820:LEU:HD21	1.96	0.47
1:E:3882:GLN:HE22	1:E:3956:SER:HB3	1.78	0.47
1:E:4672:LYS:O	1:E:4676:GLU:HG3	2.14	0.47
1:E:4886:HIS:O	1:E:4890:GLY:N	2.48	0.47
1:G:2353:VAL:HG12	1:G:2357:LEU:HD11	1.96	0.47
1:G:3190:LEU:O	1:G:3194:LEU:N	2.46	0.47
1:G:3835:LEU:HD22	1:G:3884:LEU:CD1	2.44	0.47
1:G:3891:LEU:HB3	1:G:3899:PHE:HE2	1.80	0.47
1:G:4580:TYR:HB2	1:G:4631:PHE:CD1	2.49	0.47
1:A:39:ALA:HA	1:A:48:PHE:CE2	2.50	0.47
1:A:134:ASP:OD1	1:A:135:VAL:N	2.48	0.47
1:A:682:LEU:O	1:A:682:LEU:HG	2.14	0.47
1:A:720:HIS:HB2	1:A:728:ARG:O	2.14	0.47
1:A:1084:GLN:NE2	1:A:1185:GLY:O	2.48	0.47
1:A:1295:VAL:O	1:A:1547:LYS:HA	2.14	0.47
1:A:3811:GLU:HA	1:A:3814:GLN:HG2	1.96	0.47
1:A:4181:ILE:HG12	1:A:4195:PHE:CE1	2.48	0.47
1:A:4207:MET:HG2	1:A:4208:PRO:CD	2.42	0.47
1:A:4642:ALA:O	1:A:4646:LEU:HG	2.15	0.47
1:C:516:LYS:HG3	1:C:517:GLU:N	2.28	0.47
1:C:931:THR:HA	1:C:934:ALA:HB3	1.97	0.47
1:C:1112:ASP:OD1	1:C:1606:SER:HB3	2.14	0.47
1:C:1457:TYR:CZ	1:C:1459:GLN:NE2	2.83	0.47
1:C:2244:ARG:HH11	1:C:2248:ARG:HH21	1.60	0.47
1:C:4672:LYS:O	1:C:4676:GLU:HG3	2.14	0.47
1:C:4945:ASP:O	1:C:4949:GLN:HB2	2.14	0.47
1:E:229:GLU:HG3	1:E:248:GLU:C	2.34	0.47
1:E:892:THR:N	1:E:902:ARG:HA	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1093:GLU:HA	1:E:1148:VAL:HG13	1.96	0.47
1:E:2351:ASN:O	1:E:2355:ARG:HG2	2.14	0.47
1:E:2383:ALA:HB1	1:E:2423:MET:SD	2.55	0.47
1:E:4688:ILE:HG21	1:E:4728:HIS:HB3	1.95	0.47
1:E:4822:THR:HG22	1:G:4839:MET:SD	2.55	0.47
1:G:1072:VAL:HB	1:G:1607:ARG:NH1	2.30	0.47
1:G:4666:VAL:HA	1:G:4669:VAL:HG12	1.95	0.47
1:A:102:LEU:HB2	1:A:105:HIS:HD2	1.72	0.47
1:A:249:GLY:O	1:A:252:VAL:HG12	2.15	0.47
1:A:1277:TRP:HB2	1:A:1562:ILE:O	2.13	0.47
1:A:1294:PRO:CB	1:A:1547:LYS:HB3	2.45	0.47
1:A:1432:THR:N	1:A:1519:LEU:O	2.48	0.47
1:A:2173:GLN:HG2	1:A:2174:GLU:N	2.20	0.47
1:A:2437:ALA:HB1	1:A:2454:ARG:CZ	2.45	0.47
1:A:4877:ASP:O	1:G:4581:LYS:HE2	2.15	0.47
1:A:4877:ASP:HA	1:G:4581:LYS:HZ3	1.80	0.47
1:C:102:LEU:HB2	1:C:105:HIS:NE2	2.29	0.47
1:C:682:LEU:HG	1:C:682:LEU:O	2.14	0.47
1:C:758:ARG:NE	1:C:804:PRO:HG3	2.30	0.47
1:C:862:VAL:HA	1:C:930:LYS:NZ	2.30	0.47
1:C:943:ASP:HB3	1:C:1050:GLY:HA3	1.96	0.47
1:C:1072:VAL:HB	1:C:1607:ARG:NH1	2.30	0.47
1:C:1106:ARG:HE	1:C:1188:PHE:HE1	1.62	0.47
1:C:1516:ILE:C	1:C:1530:THR:OG1	2.52	0.47
1:C:1961:PHE:CZ	1:C:2063:LEU:HD22	2.50	0.47
1:C:3938:SER:HB2	1:C:4002:LYS:HZ2	1.79	0.47
1:E:1775:HIS:ND1	1:E:1775:HIS:O	2.48	0.47
1:E:1830:VAL:HG13	1:E:1837:GLN:HB3	1.95	0.47
1:E:2159:LEU:O	1:E:2162:ILE:HG22	2.15	0.47
1:E:2927:LEU:HD23	1:E:2930:LEU:HD12	1.95	0.47
1:E:3996:PHE:CE2	1:E:4019:LEU:HD22	2.48	0.47
1:E:4137:ARG:HD2	1:E:4177:TYR:CZ	2.49	0.47
1:G:215:THR:O	1:G:218:HIS:HB3	2.14	0.47
1:G:235:ALA:HB2	1:G:257:ARG:HD3	1.96	0.47
1:G:342:GLY:N	1:G:390:LEU:O	2.47	0.47
1:G:1130:GLN:NE2	1:G:1132:TRP:HE1	2.11	0.47
1:G:1293:LEU:HD23	1:G:1584:ARG:CG	2.45	0.47
1:G:1830:VAL:HG13	1:G:1837:GLN:HB3	1.96	0.47
1:G:2117:VAL:O	1:G:2120:MET:HB2	2.15	0.47
1:G:2159:LEU:O	1:G:2162:ILE:HG22	2.14	0.47
1:G:3938:SER:HB2	1:G:4002:LYS:NZ	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4579:PHE:HB3	1:G:4632:LEU:O	2.14	0.47
1:G:4699:GLY:HA2	1:G:4702:ASP:HB2	1.96	0.47
1:G:4810:ALA:O	1:G:4813:LEU:HG	2.15	0.47
1:G:4826:ILE:O	1:G:4830:VAL:HG23	2.15	0.47
1:A:1101:ARG:HG3	1:A:1193:SER:OG	2.15	0.47
1:A:2383:ALA:HB1	1:A:2423:MET:SD	2.55	0.47
1:A:2427:ALA:O	1:A:2430:ILE:HG22	2.14	0.47
1:A:4945:ASP:O	1:A:4949:GLN:HB2	2.14	0.47
1:C:449:ILE:O	1:C:453:GLU:HG2	2.15	0.47
1:C:1101:ARG:HG3	1:C:1193:SER:OG	2.15	0.47
1:C:3882:GLN:HE22	1:C:3956:SER:HB3	1.78	0.47
1:C:3953:LYS:O	1:C:3957:VAL:HG23	2.14	0.47
1:C:4702:ASP:O	1:C:4705:VAL:HG12	2.15	0.47
1:C:4833:ASN:OD1	1:C:4836:GLN:HG2	2.14	0.47
1:E:1432:THR:N	1:E:1519:LEU:O	2.48	0.47
1:E:2353:VAL:HG12	1:E:2357:LEU:HD11	1.97	0.47
1:E:2437:ALA:HB1	1:E:2454:ARG:CZ	2.44	0.47
1:G:134:ASP:OD1	1:G:135:VAL:N	2.48	0.47
1:G:675:LEU:O	1:G:676:THR:OG1	2.27	0.47
1:G:943:ASP:HB3	1:G:1050:GLY:HA3	1.96	0.47
1:G:1088:TRP:CZ3	1:G:1226:PHE:HD1	2.33	0.47
1:G:1931:LEU:HD22	1:G:1935:VAL:HG11	1.97	0.47
1:G:2198:MET:HE3	1:G:2203:MET:SD	2.55	0.47
1:G:4672:LYS:O	1:G:4676:GLU:HG3	2.15	0.47
1:G:4906:GLY:H	1:G:4910:GLU:HG3	1.80	0.47
2:H:87:HIS:HB3	2:H:91:ILE:H	1.79	0.47
1:A:1072:VAL:HB	1:A:1607:ARG:NH1	2.30	0.47
1:A:1768:THR:C	1:A:1769:THR:HG1	2.15	0.47
1:A:1775:HIS:ND1	1:A:1775:HIS:O	2.48	0.47
1:A:4778:TRP:O	1:A:4782:VAL:HG23	2.14	0.47
1:C:39:ALA:HA	1:C:48:PHE:CE2	2.49	0.47
1:C:134:ASP:OD1	1:C:135:VAL:N	2.48	0.47
1:C:737:LEU:HD11	2:D:7:ILE:CG2	2.44	0.47
1:C:1088:TRP:CZ3	1:C:1226:PHE:HD1	2.33	0.47
1:C:1775:HIS:ND1	1:C:1775:HIS:O	2.48	0.47
1:C:2159:LEU:O	1:C:2162:ILE:HG22	2.15	0.47
1:C:2353:VAL:HG12	1:C:2357:LEU:HD11	1.97	0.47
1:C:2437:ALA:HB1	1:C:2454:ARG:CZ	2.45	0.47
1:C:3923:LEU:HD12	1:C:3961:VAL:HG12	1.97	0.47
1:C:4913:ARG:O	1:C:4916:PHE:HB3	2.15	0.47
1:E:178:ARG:HD3	1:E:195:PHE:CE1	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:458:GLU:O	1:E:458:GLU:HG2	2.13	0.47
1:E:758:ARG:NE	1:E:804:PRO:HG3	2.30	0.47
1:E:1931:LEU:HD22	1:E:1935:VAL:HG11	1.97	0.47
1:E:2066:LEU:O	1:E:2069:THR:OG1	2.31	0.47
1:E:2295:LEU:HD22	1:E:2335:LEU:CD2	2.44	0.47
1:E:3992:PHE:HB2	1:E:4023:MET:CE	2.45	0.47
1:E:4207:MET:HG2	1:E:4208:PRO:CD	2.42	0.47
1:G:449:ILE:O	1:G:453:GLU:HG2	2.15	0.47
1:G:758:ARG:NE	1:G:804:PRO:HG3	2.30	0.47
1:G:2427:ALA:O	1:G:2430:ILE:HG22	2.15	0.47
1:A:449:ILE:O	1:A:453:GLU:HG2	2.15	0.47
1:A:2211:MET:O	1:A:2215:LEU:HG	2.15	0.47
1:A:4913:ARG:O	1:A:4916:PHE:HB3	2.15	0.47
1:C:149:THR:HG23	1:C:174:VAL:HG22	1.97	0.47
1:C:229:GLU:HG3	1:C:248:GLU:C	2.34	0.47
1:C:1734:TYR:OH	1:C:1948:ASP:OD1	2.19	0.47
1:C:2499:LYS:O	1:C:2503:VAL:HG23	2.15	0.47
1:C:3655:GLU:O	1:C:3658:LYS:HB3	2.16	0.47
1:C:4137:ARG:HD2	1:C:4177:TYR:CZ	2.49	0.47
1:C:4778:TRP:O	1:C:4782:VAL:HG23	2.15	0.47
1:E:215:THR:O	1:E:218:HIS:HB3	2.14	0.47
1:E:1154:ASP:HB3	1:E:1157:GLU:HB3	1.97	0.47
1:E:1961:PHE:CZ	1:E:2063:LEU:HD22	2.49	0.47
1:E:2211:MET:O	1:E:2215:LEU:HG	2.15	0.47
1:E:4003:LEU:CB	1:E:4013:LEU:HD12	2.45	0.47
1:G:4642:ALA:O	1:G:4646:LEU:HG	2.15	0.47
1:A:737:LEU:HD11	2:B:7:ILE:CG2	2.43	0.46
1:A:1252:HIS:CG	1:A:1253:PRO:HD2	2.50	0.46
1:A:2771:ILE:HD11	1:A:2857:PRO:HD2	1.97	0.46
1:A:4581:LYS:CE	1:C:4877:ASP:O	2.63	0.46
1:C:1154:ASP:HB3	1:C:1157:GLU:HB3	1.97	0.46
1:C:1931:LEU:HD22	1:C:1935:VAL:HG11	1.97	0.46
1:E:102:LEU:HB2	1:E:105:HIS:NE2	2.29	0.46
1:E:264:PRO:O	1:E:266:ARG:N	2.43	0.46
1:E:737:LEU:HB3	1:E:738:LEU:H	1.56	0.46
1:E:791:PHE:HB2	1:E:1626:TRP:HB2	1.95	0.46
1:E:1106:ARG:HE	1:E:1188:PHE:HE1	1.63	0.46
1:E:3780:LEU:HG	1:E:3828:PHE:CE1	2.51	0.46
1:E:3989:VAL:HG13	1:E:4023:MET:HE2	1.98	0.46
1:E:4702:ASP:O	1:E:4705:VAL:HG12	2.15	0.46
1:G:39:ALA:HA	1:G:48:PHE:CE2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:149:THR:HG23	1:G:174:VAL:HG22	1.97	0.46
1:G:229:GLU:HG3	1:G:248:GLU:C	2.35	0.46
1:G:3804:ILE:O	1:G:3809:ASN:ND2	2.48	0.46
1:G:3906:GLN:HB3	1:G:3912:THR:HA	1.96	0.46
1:G:3916:ILE:O	1:G:3919:THR:HG22	2.15	0.46
1:G:4024:VAL:O	1:G:4027:LEU:HB2	2.15	0.46
1:G:4920:PHE:O	1:G:4924:VAL:HB	2.15	0.46
2:H:38:SER:HB3	2:H:41:ASP:OD2	2.14	0.46
1:A:195:PHE:CE2	1:G:2358:ILE:HG21	2.50	0.46
1:A:634:GLN:HG3	1:A:1640:HIS:CE1	2.50	0.46
1:A:943:ASP:HB3	1:A:1050:GLY:HA3	1.96	0.46
1:A:1093:GLU:HA	1:A:1148:VAL:HG22	1.97	0.46
1:A:3780:LEU:HG	1:A:3828:PHE:CE1	2.50	0.46
1:C:1729:SER:O	1:C:1733:GLU:HG2	2.15	0.46
1:C:2383:ALA:HB1	1:C:2423:MET:SD	2.55	0.46
1:C:3501:ASP:HA	1:E:1224:GLU:OE2	2.15	0.46
2:D:88:PRO:O	2:D:90:ILE:HD12	2.16	0.46
1:E:593:HIS:HB3	1:E:596:ASN:HD22	1.79	0.46
1:E:1072:VAL:HB	1:E:1607:ARG:NH1	2.30	0.46
1:E:4664:LEU:O	1:E:4667:PRO:HD2	2.16	0.46
1:E:4822:THR:O	1:E:4826:ILE:HG13	2.15	0.46
1:G:634:GLN:HG3	1:G:1640:HIS:CE1	2.50	0.46
1:G:1294:PRO:CB	1:G:1547:LYS:HB3	2.46	0.46
1:G:2553:TYR:CD1	1:G:2556:LEU:HD12	2.50	0.46
1:G:4023:MET:O	1:G:4026:MET:HG2	2.15	0.46
1:G:4720:VAL:O	1:G:4724:VAL:HG23	2.14	0.46
1:G:4991:PHE:O	1:G:4995:LEU:HG	2.16	0.46
1:A:350:HIS:O	1:A:354:GLY:HA2	2.15	0.46
1:A:791:PHE:HB2	1:A:1626:TRP:HB2	1.95	0.46
1:A:1943:LEU:HD11	1:A:2098:VAL:HG22	1.97	0.46
1:A:2748:PRO:HD2	1:A:2751:LEU:HD12	1.97	0.46
1:A:3655:GLU:O	1:A:3658:LYS:HB3	2.16	0.46
1:A:4039:MET:CA	1:A:4042:ARG:HH11	2.29	0.46
1:C:824:GLU:CD	1:C:825:PRO:HD2	2.36	0.46
1:C:3780:LEU:HG	1:C:3828:PHE:CE1	2.50	0.46
1:C:4574:ASN:ND2	1:C:4813:LEU:HD23	2.31	0.46
1:E:489:ASN:HB3	1:E:493:ARG:NH2	2.30	0.46
1:E:634:GLN:HG3	1:E:1640:HIS:CE1	2.50	0.46
1:E:931:THR:HA	1:E:934:ALA:HB3	1.97	0.46
1:E:1439:VAL:O	1:E:1513:ASP:N	2.44	0.46
1:E:2059:LEU:CD2	1:E:2062:ARG:HH12	2.20	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2305:CYS:HB2	1:E:2325:PRO:HG2	1.97	0.46
1:E:3655:GLU:O	1:E:3658:LYS:HB3	2.15	0.46
1:E:3923:LEU:HD12	1:E:3961:VAL:HG12	1.97	0.46
1:E:3953:LYS:O	1:E:3957:VAL:HG23	2.14	0.46
1:E:3986:TRP:HD1	1:E:4047:MET:SD	2.39	0.46
1:E:4039:MET:CA	1:E:4042:ARG:HH11	2.29	0.46
2:F:87:HIS:HB3	2:F:91:ILE:H	1.80	0.46
1:G:249:GLY:O	1:G:252:VAL:HG12	2.15	0.46
1:G:1951:LEU:O	1:G:1955:VAL:HG23	2.16	0.46
1:G:2437:ALA:HB1	1:G:2454:ARG:CZ	2.44	0.46
1:G:4239:GLU:OE2	1:G:5014:TYR:HE1	1.98	0.46
1:G:4778:TRP:O	1:G:4782:VAL:HG23	2.16	0.46
1:G:4976:GLU:O	1:G:4980:LEU:N	2.48	0.46
2:H:54:GLU:HG3	2:H:55:VAL:HG13	1.97	0.46
1:A:531:ARG:HG2	1:A:566:CYS:SG	2.55	0.46
1:A:824:GLU:CD	1:A:825:PRO:HD2	2.36	0.46
1:A:3780:LEU:HD11	1:A:3820:LEU:HD21	1.96	0.46
1:A:4674:GLU:OE2	1:A:4712:PRO:HA	2.15	0.46
1:C:2427:ALA:O	1:C:2430:ILE:HG22	2.14	0.46
1:E:1141:ARG:NH1	1:E:1169:LEU:HD11	2.28	0.46
1:E:1294:PRO:CB	1:E:1547:LYS:HB3	2.46	0.46
1:E:2290:LEU:HD11	1:E:2349:ASN:OD1	2.16	0.46
1:E:2427:ALA:O	1:E:2430:ILE:HG22	2.15	0.46
1:E:4151:SER:HA	1:E:4160:LEU:HD21	1.96	0.46
1:G:1775:HIS:ND1	1:G:1775:HIS:O	2.48	0.46
1:G:2173:GLN:CG	1:G:2174:GLU:H	2.21	0.46
1:A:107:ILE:H	1:A:148:TRP:H	1.63	0.46
1:A:149:THR:HG23	1:A:174:VAL:HG22	1.97	0.46
1:A:1130:GLN:NE2	1:A:1132:TRP:HE1	2.11	0.46
1:A:3992:PHE:HB2	1:A:4023:MET:CE	2.45	0.46
1:C:792:LEU:HB3	1:C:799:GLU:O	2.16	0.46
1:C:2211:MET:O	1:C:2215:LEU:HG	2.15	0.46
1:C:2305:CYS:HB2	1:C:2325:PRO:HG2	1.97	0.46
1:C:4886:HIS:O	1:C:4891:VAL:N	2.42	0.46
1:E:39:ALA:HA	1:E:48:PHE:CE2	2.50	0.46
1:E:134:ASP:OD1	1:E:135:VAL:N	2.48	0.46
1:E:449:ILE:O	1:E:453:GLU:HG2	2.16	0.46
1:E:785:ALA:HA	1:E:1633:PRO:HD3	1.98	0.46
1:E:1252:HIS:CG	1:E:1253:PRO:HD2	2.50	0.46
1:E:3902:TYR:HE1	1:E:3908:GLY:H	1.62	0.46
1:E:4642:ALA:O	1:E:4646:LEU:HG	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:682:LEU:O	1:G:682:LEU:HG	2.16	0.46
1:G:1106:ARG:HE	1:G:1188:PHE:HE1	1.63	0.46
1:G:1961:PHE:CZ	1:G:2063:LEU:HD22	2.51	0.46
1:G:2062:ARG:O	1:G:2065:SER:OG	2.21	0.46
1:G:2290:LEU:HD11	1:G:2349:ASN:OD1	2.16	0.46
1:G:4059:LEU:HA	1:G:4062:PHE:HD2	1.79	0.46
1:G:4725:LEU:O	1:G:4734:ARG:NH2	2.49	0.46
1:A:489:ASN:HB3	1:A:493:ARG:NH2	2.30	0.46
1:A:785:ALA:HA	1:A:1633:PRO:HD3	1.97	0.46
1:A:2553:TYR:CD1	1:A:2556:LEU:HD12	2.51	0.46
1:A:3775:ALA:O	1:A:3779:VAL:HG23	2.15	0.46
1:A:3989:VAL:HG13	1:A:4023:MET:HE2	1.98	0.46
1:A:4979:THR:O	1:A:4984:ASN:N	2.30	0.46
1:C:249:GLY:O	1:C:252:VAL:HG12	2.15	0.46
1:C:892:THR:N	1:C:902:ARG:HA	2.30	0.46
1:C:1128:ARG:N	1:C:1142:PRO:HB3	2.31	0.46
1:C:1252:HIS:CG	1:C:1253:PRO:HD2	2.50	0.46
1:C:3775:ALA:O	1:C:3779:VAL:HG23	2.16	0.46
1:C:3986:TRP:HD1	1:C:4047:MET:SD	2.39	0.46
1:C:3992:PHE:HB2	1:C:4023:MET:CE	2.45	0.46
1:C:4039:MET:CA	1:C:4042:ARG:HH11	2.29	0.46
1:E:21:VAL:CG2	1:E:203:ASN:HB3	2.46	0.46
1:E:1951:LEU:O	1:E:1955:VAL:HG23	2.16	0.46
1:E:2358:ILE:CG2	1:G:195:PHE:HE2	2.29	0.46
1:E:4583:SER:N	1:E:4628:VAL:O	2.42	0.46
1:E:4674:GLU:OE2	1:E:4712:PRO:HA	2.16	0.46
1:E:4913:ARG:O	1:E:4916:PHE:HB3	2.15	0.46
1:G:102:LEU:HB2	1:G:105:HIS:NE2	2.29	0.46
1:G:1729:SER:O	1:G:1733:GLU:HG2	2.15	0.46
1:G:1783:VAL:HG12	2:H:54:GLU:O	2.16	0.46
1:G:2748:PRO:HD2	1:G:2751:LEU:HD12	1.96	0.46
1:G:3934:TYR:HD1	1:G:3999:MET:HG2	1.80	0.46
1:G:4207:MET:HG2	1:G:4208:PRO:CD	2.44	0.46
1:G:5004:THR:O	1:G:5007:GLU:HG2	2.16	0.46
2:H:76:ILE:O	2:H:96:THR:HG23	2.16	0.46
1:A:312:THR:O	1:A:314:PHE:N	2.41	0.46
1:A:675:LEU:O	1:A:676:THR:OG1	2.27	0.46
1:A:1098:GLY:HA3	1:A:1198:GLN:HE21	1.79	0.46
1:A:1779:PRO:HA	1:A:1780:PRO:HD3	1.78	0.46
1:A:1840:PRO:O	1:A:1843:LYS:HB3	2.16	0.46
1:A:2499:LYS:O	1:A:2503:VAL:HG23	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4207:MET:HG2	1:C:4208:PRO:CD	2.42	0.46
1:C:4642:ALA:O	1:C:4646:LEU:HG	2.15	0.46
1:C:4888:TYR:OH	1:E:4898:GLY:CA	2.64	0.46
1:C:4980:LEU:HA	1:C:4984:ASN:HA	1.98	0.46
1:E:792:LEU:HB3	1:E:799:GLU:O	2.16	0.46
1:E:1101:ARG:HG3	1:E:1193:SER:OG	2.15	0.46
1:E:2173:GLN:CG	1:E:2174:GLU:H	2.22	0.46
1:E:2499:LYS:O	1:E:2503:VAL:HG23	2.15	0.46
1:G:489:ASN:HB3	1:G:493:ARG:NH2	2.31	0.46
1:G:862:VAL:HA	1:G:930:LYS:NZ	2.31	0.46
1:G:2431:ASP:HB2	1:G:2501:SER:CB	2.46	0.46
1:G:4712:PRO:O	1:G:4718:LYS:HD2	2.16	0.46
1:G:4887:MET:HA	1:G:4891:VAL:HG23	1.97	0.46
1:G:4914:VAL:O	1:G:4918:ILE:HG13	2.15	0.46
1:A:107:ILE:HD12	1:A:109:LEU:HD21	1.98	0.46
1:A:2198:MET:HE3	1:A:2203:MET:SD	2.56	0.46
1:A:3777:GLU:O	1:A:3781:GLN:HG3	2.16	0.46
1:A:3902:TYR:HE1	1:A:3908:GLY:H	1.62	0.46
1:A:4666:VAL:O	1:A:4670:ILE:HG12	2.15	0.46
2:B:87:HIS:HB3	2:B:91:ILE:H	1.80	0.46
1:C:21:VAL:CG2	1:C:203:ASN:HB3	2.46	0.46
1:C:223:PHE:O	1:C:388:LEU:HD23	2.16	0.46
1:C:1141:ARG:NH1	1:C:1169:LEU:HD11	2.27	0.46
1:E:14:LEU:HD12	1:E:163:VAL:HG12	1.97	0.46
1:E:1768:THR:O	1:E:1769:THR:OG1	2.23	0.46
1:E:2771:ILE:HD11	1:E:2857:PRO:HD2	1.96	0.46
1:G:492:ASP:OD1	1:G:546:TRP:NE1	2.42	0.46
1:G:2788:HIS:CG	1:G:2789:PRO:HD2	2.51	0.46
1:G:3891:LEU:HB3	1:G:3899:PHE:CE2	2.50	0.46
1:G:3906:GLN:HG2	1:G:3909:ASN:HB2	1.98	0.46
1:G:3996:PHE:HE2	1:G:4019:LEU:HD22	1.80	0.46
1:A:21:VAL:CG2	1:A:203:ASN:HB3	2.46	0.46
1:A:276:TRP:CD1	1:A:276:TRP:O	2.69	0.46
1:A:1082:THR:HG22	1:A:1189:LEU:HG	1.98	0.46
1:A:2350:ALA:O	1:A:2354:VAL:HG23	2.16	0.46
1:A:4929:LEU:O	1:A:4933:GLN:HG3	2.15	0.46
2:B:88:PRO:O	2:B:90:ILE:HD12	2.16	0.46
1:C:564:LEU:O	1:C:568:LEU:HG	2.16	0.46
1:C:2059:LEU:CD2	1:C:2062:ARG:HH12	2.20	0.46
1:C:2350:ALA:O	1:C:2354:VAL:HG23	2.16	0.46
1:C:2553:TYR:CD1	1:C:2556:LEU:HD12	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3938:SER:OG	1:E:80:GLU:OE1	2.30	0.46
2:F:88:PRO:O	2:F:90:ILE:HD12	2.16	0.46
1:G:223:PHE:O	1:G:388:LEU:HD23	2.16	0.46
1:G:792:LEU:HB3	1:G:799:GLU:O	2.16	0.46
1:G:1101:ARG:HG3	1:G:1193:SER:OG	2.15	0.46
1:G:1432:THR:N	1:G:1519:LEU:O	2.49	0.46
1:G:1638:ALA:HA	1:G:1649:ASP:HA	1.98	0.46
1:G:3937:TYR:O	1:G:3941:ASP:N	2.47	0.46
1:A:451:TYR:CZ	1:A:474:ARG:HD2	2.51	0.46
1:A:649:PHE:HB3	1:A:776:LEU:HB3	1.98	0.46
1:A:1128:ARG:N	1:A:1142:PRO:HB3	2.31	0.46
1:A:1293:LEU:HD23	1:A:1584:ARG:CG	2.45	0.46
1:A:4003:LEU:CB	1:A:4013:LEU:HD12	2.44	0.46
1:A:4717:ASP:O	1:A:4720:VAL:HG23	2.16	0.46
1:A:4888:TYR:OH	1:C:4898:GLY:HA3	2.16	0.46
1:C:690:GLU:CG	1:C:1459:GLN:OE1	2.64	0.46
1:C:2460:LEU:HD12	1:E:178:ARG:CZ	2.45	0.46
1:C:4717:ASP:O	1:C:4720:VAL:HG23	2.16	0.46
1:C:4951:LYS:O	1:C:4955:GLU:HG2	2.16	0.46
1:E:292:ALA:HB3	1:E:302:VAL:HG11	1.98	0.46
1:E:350:HIS:O	1:E:354:GLY:HA2	2.16	0.46
1:E:1093:GLU:HA	1:E:1148:VAL:HG22	1.97	0.46
1:E:2250:MET:HA	1:E:2253:HIS:HD2	1.81	0.46
1:E:2929:PHE:O	1:E:2933:ASN:ND2	2.47	0.46
1:E:3916:ILE:O	1:E:3920:VAL:HG23	2.16	0.46
1:E:3938:SER:OG	1:G:80:GLU:OE1	2.27	0.46
1:E:4951:LYS:O	1:E:4955:GLU:HG2	2.16	0.46
1:G:445:LEU:CD2	1:G:522:LEU:HD12	2.44	0.46
1:G:2211:MET:O	1:G:2215:LEU:HG	2.16	0.46
1:A:459:LEU:HD11	1:A:463:GLU:OE1	2.15	0.45
1:A:1638:ALA:HA	1:A:1649:ASP:HA	1.97	0.45
1:A:3724:ALA:O	1:A:3727:ASP:HB2	2.16	0.45
1:A:3977:GLN:HE22	1:A:4033:GLY:H	1.63	0.45
1:A:3986:TRP:HD1	1:A:4047:MET:SD	2.39	0.45
1:A:4712:PRO:O	1:A:4718:LYS:HD2	2.16	0.45
2:B:44:LYS:HA	2:B:45:PRO:HD3	1.86	0.45
1:C:276:TRP:CD1	1:C:276:TRP:O	2.69	0.45
1:C:489:ASN:HB3	1:C:493:ARG:NH2	2.30	0.45
1:C:1294:PRO:CB	1:C:1547:LYS:HB3	2.45	0.45
1:C:1713:ASP:OD1	1:C:1714:LEU:N	2.49	0.45
1:C:2748:PRO:HD2	1:C:2751:LEU:HD12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2883:HIS:HE1	1:C:2904:LEU:O	1.99	0.45
1:C:3989:VAL:HG13	1:C:4023:MET:HE2	1.98	0.45
1:C:4712:PRO:O	1:C:4718:LYS:HD2	2.15	0.45
1:E:249:GLY:O	1:E:252:VAL:HG12	2.15	0.45
1:E:824:GLU:CD	1:E:825:PRO:HD2	2.36	0.45
1:E:2553:TYR:CD1	1:E:2556:LEU:HD12	2.51	0.45
1:E:2819:TRP:HH2	1:E:2881:ASN:HB2	1.81	0.45
1:E:4222:VAL:HG11	1:E:4950:VAL:HA	1.99	0.45
1:E:4578:LEU:CD1	1:G:4880:MET:CA	2.85	0.45
1:E:4648:LEU:O	1:E:4652:LEU:N	2.47	0.45
1:E:4810:ALA:O	1:E:4813:LEU:HG	2.16	0.45
1:G:14:LEU:HD12	1:G:163:VAL:HG12	1.98	0.45
1:G:1598:GLN:O	1:G:1600:LEU:N	2.49	0.45
1:G:2499:LYS:O	1:G:2503:VAL:HG23	2.15	0.45
1:G:4821:LYS:HD3	1:G:4947:GLN:NE2	2.31	0.45
1:G:4832:HIS:NE2	1:G:4939:ALA:HB1	2.31	0.45
2:H:88:PRO:O	2:H:90:ILE:HD12	2.16	0.45
1:A:2431:ASP:HB2	1:A:2501:SER:CB	2.46	0.45
1:A:2883:HIS:HE1	1:A:2904:LEU:O	1.99	0.45
1:C:649:PHE:HB3	1:C:776:LEU:HB3	1.98	0.45
1:C:2290:LEU:HD11	1:C:2349:ASN:OD1	2.16	0.45
1:C:2771:ILE:HD11	1:C:2857:PRO:HD2	1.97	0.45
1:C:4581:LYS:HD2	1:E:4856:PHE:CZ	2.50	0.45
1:E:1224:GLU:HA	1:E:1225:PRO:HD3	1.64	0.45
1:E:2431:ASP:HB2	1:E:2501:SER:CB	2.46	0.45
1:G:16:THR:OG1	1:G:99:ARG:O	2.20	0.45
1:G:21:VAL:CG2	1:G:203:ASN:HB3	2.46	0.45
1:G:833:GLY:HA3	1:G:838:HIS:CD2	2.52	0.45
1:G:1660:GLN:NE2	1:G:1704:PRO:HB2	2.31	0.45
1:G:2350:ALA:O	1:G:2354:VAL:HG23	2.16	0.45
1:G:3371:LYS:O	1:G:3375:GLU:N	2.44	0.45
1:G:3936:TYR:HD2	1:G:3937:TYR:CE2	2.34	0.45
1:G:4209:GLN:HG3	1:G:4213:SER:HB2	1.99	0.45
1:G:4727:LYS:NZ	1:G:4728:HIS:CE1	2.84	0.45
1:A:750:LEU:O	1:A:751:SER:OG	2.33	0.45
1:A:792:LEU:HB3	1:A:799:GLU:O	2.16	0.45
1:A:1713:ASP:OD1	1:A:1714:LEU:N	2.49	0.45
1:A:2290:LEU:HD11	1:A:2349:ASN:OD1	2.16	0.45
1:A:3698:LEU:O	1:A:3701:LEU:HB3	2.17	0.45
1:A:3916:ILE:O	1:A:3920:VAL:HG23	2.17	0.45
1:A:4234:PHE:HZ	1:A:4988:TYR:HB2	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1090:PHE:CE1	1:C:1151:CYS:HB3	2.51	0.45
1:C:1438:ARG:HA	1:C:1514:LEU:HA	1.98	0.45
1:C:2117:VAL:O	1:C:2120:MET:HB2	2.16	0.45
1:C:2198:MET:HE3	1:C:2203:MET:SD	2.56	0.45
1:C:3724:ALA:O	1:C:3727:ASP:HB2	2.17	0.45
1:C:4024:VAL:HA	1:C:4027:LEU:HD12	1.98	0.45
1:C:4578:LEU:CD1	1:E:4880:MET:CA	2.83	0.45
1:C:4674:GLU:OE2	1:C:4712:PRO:HA	2.16	0.45
1:E:451:TYR:CZ	1:E:474:ARG:HD2	2.51	0.45
1:E:1840:PRO:O	1:E:1843:LYS:HB3	2.16	0.45
1:E:2883:HIS:HE1	1:E:2904:LEU:O	1.99	0.45
1:E:3775:ALA:O	1:E:3779:VAL:HG23	2.15	0.45
1:E:3977:GLN:HE22	1:E:4033:GLY:H	1.64	0.45
1:G:451:TYR:CZ	1:G:474:ARG:HD2	2.52	0.45
1:G:459:LEU:HD11	1:G:463:GLU:OE1	2.15	0.45
1:G:1093:GLU:HA	1:G:1148:VAL:HG22	1.98	0.45
1:G:2420:HIS:ND1	1:G:2423:MET:SD	2.76	0.45
1:G:3434:LEU:O	1:G:3437:MET:N	2.49	0.45
1:G:3655:GLU:O	1:G:3658:LYS:HB3	2.15	0.45
1:A:119:SER:OG	1:A:136:GLY:O	2.25	0.45
1:A:223:PHE:O	1:A:388:LEU:HD23	2.16	0.45
1:A:1106:ARG:HE	1:A:1188:PHE:HE1	1.63	0.45
1:A:2248:ARG:HA	1:A:2286:LEU:HD22	1.99	0.45
1:C:478:PHE:CD1	1:C:529:LEU:HD21	2.51	0.45
1:C:785:ALA:HA	1:C:1633:PRO:HD3	1.97	0.45
1:C:2066:LEU:O	1:C:2069:THR:OG1	2.31	0.45
1:C:2745:VAL:HB	1:C:2814:LYS:HB3	1.98	0.45
1:E:478:PHE:CD1	1:E:529:LEU:HD21	2.52	0.45
1:E:558:SER:O	1:E:561:LEU:HB3	2.16	0.45
1:E:2062:ARG:O	1:E:2065:SER:OG	2.21	0.45
1:E:2745:VAL:HB	1:E:2814:LYS:HB3	1.98	0.45
1:E:3698:LEU:O	1:E:3701:LEU:HB3	2.17	0.45
1:E:4563:ARG:NH1	1:E:4815:ASP:OD1	2.47	0.45
2:F:58:GLY:HA3	2:F:76:ILE:CG2	2.46	0.45
1:G:720:HIS:HB2	1:G:728:ARG:O	2.16	0.45
1:G:1154:ASP:HB3	1:G:1157:GLU:HB3	1.97	0.45
1:G:1729:SER:HB2	1:G:2163:ARG:HH11	1.81	0.45
1:G:4213:SER:O	1:G:4217:PHE:N	2.42	0.45
1:G:4886:HIS:O	1:G:4891:VAL:N	2.45	0.45
1:A:833:GLY:HA3	1:A:838:HIS:CD2	2.52	0.45
1:A:2822:THR:HG1	1:A:2938:THR:HG1	1.63	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4664:LEU:O	1:A:4667:PRO:HD2	2.16	0.45
1:A:4980:LEU:HA	1:A:4984:ASN:HA	1.98	0.45
1:C:451:TYR:CZ	1:C:474:ARG:HD2	2.52	0.45
1:C:634:GLN:HG3	1:C:1640:HIS:CE1	2.50	0.45
1:C:737:LEU:HB3	1:C:738:LEU:H	1.56	0.45
1:C:1834:VAL:HG13	1:C:1835:GLU:N	2.32	0.45
1:E:943:ASP:HB3	1:E:1050:GLY:HA3	1.97	0.45
1:E:1240:LYS:HZ3	1:E:1242:LEU:HB2	1.80	0.45
1:E:1648:MET:SD	1:E:1656:ARG:NH2	2.89	0.45
1:E:2117:VAL:O	1:E:2120:MET:HB2	2.17	0.45
1:E:3724:ALA:O	1:E:3727:ASP:HB2	2.16	0.45
1:E:4823:LEU:HA	1:E:4826:ILE:CD1	2.44	0.45
1:E:4929:LEU:O	1:E:4933:GLN:HG3	2.17	0.45
1:G:478:PHE:CD1	1:G:529:LEU:HD21	2.52	0.45
1:G:593:HIS:HB3	1:G:596:ASN:HD22	1.79	0.45
1:G:1079:LYS:HZ2	1:G:1107:PRO:HB2	1.81	0.45
1:G:1840:PRO:O	1:G:1843:LYS:HB3	2.16	0.45
1:G:2059:LEU:CD2	1:G:2062:ARG:HH12	2.20	0.45
1:G:2250:MET:HA	1:G:2253:HIS:HD2	1.81	0.45
1:A:372:LEU:O	1:A:374:LYS:N	2.50	0.45
1:A:564:LEU:O	1:A:568:LEU:HG	2.16	0.45
1:A:1660:GLN:NE2	1:A:1704:PRO:HB2	2.31	0.45
1:A:2142:TYR:HE1	1:A:2196:ASN:HD22	1.64	0.45
1:A:4024:VAL:HA	1:A:4027:LEU:HD12	1.97	0.45
1:A:4578:LEU:HG	1:C:4880:MET:HB2	1.99	0.45
1:A:4579:PHE:HB3	1:A:4632:LEU:O	2.17	0.45
1:C:274:LEU:HA	1:C:278:GLN:NE2	2.32	0.45
1:C:445:LEU:CD2	1:C:522:LEU:HD12	2.44	0.45
1:C:839:LEU:HD22	1:C:1075:PHE:CE1	2.52	0.45
1:C:1082:THR:HG22	1:C:1189:LEU:HG	1.98	0.45
1:C:1093:GLU:HA	1:C:1148:VAL:HG22	1.98	0.45
1:C:1598:GLN:O	1:C:1600:LEU:N	2.49	0.45
1:C:2271:THR:HA	1:C:2272:PRO:HD2	1.85	0.45
1:C:3969:ILE:CG1	1:C:3980:LEU:HD11	2.46	0.45
1:C:4579:PHE:HB3	1:C:4632:LEU:O	2.17	0.45
1:C:4826:ILE:O	1:C:4829:SER:HB2	2.16	0.45
1:C:4915:VAL:HA	1:C:4918:ILE:HD12	1.97	0.45
2:D:67:SER:N	2:D:70:GLN:OE1	2.37	0.45
1:E:24:CYS:HB3	1:E:200:TRP:CE3	2.52	0.45
1:E:149:THR:HG23	1:E:174:VAL:HG22	1.98	0.45
1:E:274:LEU:HA	1:E:278:GLN:NE2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:649:PHE:HB3	1:E:776:LEU:HB3	1.98	0.45
1:E:833:GLY:HA3	1:E:838:HIS:CD2	2.52	0.45
1:E:839:LEU:HD22	1:E:1075:PHE:CE1	2.52	0.45
1:E:2460:LEU:HD12	1:G:178:ARG:CZ	2.46	0.45
1:E:3777:GLU:O	1:E:3781:GLN:HG3	2.16	0.45
1:E:4702:ASP:OD1	1:E:4778:TRP:NE1	2.31	0.45
1:E:4712:PRO:O	1:E:4718:LYS:HD2	2.16	0.45
1:G:1713:ASP:OD1	1:G:1714:LEU:N	2.49	0.45
1:G:4000:MET:O	1:G:4004:ALA:N	2.49	0.45
1:G:4735:GLU:O	1:G:4739:GLU:N	2.48	0.45
1:A:24:CYS:HB3	1:A:200:TRP:CE3	2.52	0.45
1:A:758:ARG:HA	1:A:763:PRO:HA	1.97	0.45
1:A:1090:PHE:CE1	1:A:1151:CYS:HB3	2.52	0.45
1:A:1292:SER:O	1:A:1294:PRO:HD3	2.17	0.45
1:A:1294:PRO:CD	1:A:1584:ARG:HH11	2.19	0.45
1:A:2272:PRO:O	1:A:2275:VAL:HB	2.17	0.45
1:A:4214:LYS:HE2	1:A:4985:LEU:HD23	1.98	0.45
1:C:312:THR:O	1:C:314:PHE:N	2.41	0.45
1:C:533:ASN:OD1	1:C:535:ALA:N	2.41	0.45
1:C:599:VAL:O	1:C:602:VAL:HB	2.17	0.45
1:C:1805:GLU:O	1:C:1808:ARG:HG2	2.17	0.45
1:C:1840:PRO:O	1:C:1843:LYS:HB3	2.16	0.45
1:C:2114:PRO:O	1:C:3704:HIS:NE2	2.40	0.45
1:C:2431:ASP:HB2	1:C:2501:SER:CB	2.46	0.45
1:C:2556:LEU:HD23	1:C:2559:LEU:CD1	2.47	0.45
1:C:3698:LEU:O	1:C:3701:LEU:HB3	2.17	0.45
1:C:3777:GLU:O	1:C:3781:GLN:HG3	2.16	0.45
1:C:3916:ILE:O	1:C:3920:VAL:HG23	2.17	0.45
1:C:3996:PHE:O	1:C:4000:MET:HG2	2.17	0.45
1:C:4222:VAL:HG11	1:C:4950:VAL:HA	1.99	0.45
1:C:4234:PHE:HZ	1:C:4988:TYR:HB2	1.82	0.45
1:E:111:HIS:NE2	1:E:113:HIS:HB3	2.32	0.45
1:E:1079:LYS:HZ2	1:E:1107:PRO:HB2	1.80	0.45
1:E:1805:GLU:O	1:E:1808:ARG:HG2	2.17	0.45
1:E:4924:VAL:HA	1:E:4928:LEU:HD12	1.99	0.45
1:G:350:HIS:O	1:G:354:GLY:HA2	2.17	0.45
1:G:533:ASN:OD1	1:G:535:ALA:N	2.41	0.45
1:G:558:SER:O	1:G:561:LEU:HB3	2.17	0.45
1:G:2756:ASN:OD1	1:G:2806:ARG:NH2	2.49	0.45
1:G:4039:MET:HG3	1:G:4040:ILE:H	1.81	0.45
1:G:4108:ILE:O	1:G:4111:LEU:HB3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4733:GLY:O	1:G:4737:ILE:HG12	2.17	0.45
1:A:111:HIS:NE2	1:A:113:HIS:HB3	2.32	0.45
1:A:2244:ARG:NH1	1:A:2285:GLU:OE1	2.50	0.45
1:A:4222:VAL:HG11	1:A:4950:VAL:HA	1.99	0.45
1:A:4574:ASN:ND2	1:A:4813:LEU:HD23	2.31	0.45
1:C:24:CYS:HB3	1:C:200:TRP:CE3	2.52	0.45
1:C:111:HIS:NE2	1:C:113:HIS:HB3	2.32	0.45
1:C:438:ILE:HG23	1:C:518:ILE:HD11	1.98	0.45
1:C:558:SER:O	1:C:561:LEU:HB3	2.16	0.45
1:C:768:PHE:HB3	1:C:771:PHE:HE2	1.82	0.45
1:C:941:MET:HA	1:C:1051:TYR:HD1	1.82	0.45
1:C:2819:TRP:HH2	1:C:2881:ASN:HB2	1.81	0.45
1:C:4143:VAL:O	1:C:4147:LEU:HG	2.17	0.45
1:C:4648:LEU:O	1:C:4652:LEU:N	2.47	0.45
1:E:564:LEU:O	1:E:568:LEU:HG	2.16	0.45
1:E:662:TRP:CZ3	1:E:814:ALA:HB2	2.52	0.45
1:E:1128:ARG:N	1:E:1142:PRO:HB3	2.31	0.45
1:E:1713:ASP:OD1	1:E:1714:LEU:N	2.50	0.45
1:E:4666:VAL:O	1:E:4670:ILE:HG12	2.16	0.45
1:E:4915:VAL:HA	1:E:4918:ILE:HD12	1.98	0.45
1:G:1848:LEU:O	1:G:1851:MET:HG2	2.17	0.45
1:G:2232:CYS:O	1:G:2235:PHE:HB3	2.17	0.45
1:G:4786:ASP:OD2	1:G:4788:SER:HB3	2.16	0.45
1:G:4946:GLN:O	1:G:4950:VAL:HG23	2.17	0.45
1:A:102:LEU:HB2	1:A:105:HIS:NE2	2.31	0.45
1:A:1130:GLN:HB2	1:A:1138:PRO:HA	1.99	0.45
1:A:1951:LEU:O	1:A:1955:VAL:HG23	2.16	0.45
1:A:2232:CYS:O	1:A:2235:PHE:HB3	2.17	0.45
1:A:4648:LEU:O	1:A:4652:LEU:N	2.47	0.45
1:A:4802:GLY:HA2	1:A:4809:PHE:HB2	1.99	0.45
1:C:887:ILE:CG2	1:C:962:SER:HB2	2.47	0.45
1:C:2173:GLN:HG2	1:C:2174:GLU:N	2.19	0.45
1:C:4664:LEU:O	1:C:4667:PRO:HD2	2.16	0.45
1:C:4666:VAL:O	1:C:4670:ILE:HG12	2.16	0.45
2:D:58:GLY:HA3	2:D:76:ILE:CG2	2.47	0.45
1:E:223:PHE:O	1:E:388:LEU:HD23	2.16	0.45
1:E:234:SER:O	1:E:242:ARG:HG2	2.17	0.45
1:E:445:LEU:CD2	1:E:522:LEU:HD12	2.44	0.45
1:E:2296:GLU:HA	1:E:2299:VAL:HG22	1.99	0.45
1:E:2350:ALA:O	1:E:2354:VAL:HG23	2.17	0.45
1:E:4579:PHE:HB3	1:E:4632:LEU:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:107:ILE:HD12	1:G:109:LEU:HD21	1.99	0.45
1:G:111:HIS:NE2	1:G:113:HIS:HB3	2.32	0.45
1:G:290:TYR:HB2	1:G:307:ALA:CB	2.47	0.45
1:G:438:ILE:HG23	1:G:518:ILE:HD11	1.98	0.45
1:G:716:PHE:N	1:G:738:LEU:HD13	2.31	0.45
1:G:824:GLU:CD	1:G:825:PRO:HD2	2.36	0.45
1:G:1205:GLY:HA3	1:G:1227:ALA:CB	2.43	0.45
1:G:1234:VAL:HG12	1:G:1235:THR:O	2.17	0.45
1:G:1805:GLU:O	1:G:1808:ARG:HG2	2.17	0.45
1:G:2752:ASP:HA	1:G:2755:ILE:HD12	1.99	0.45
1:G:3997:ALA:HB1	1:G:4057:MET:HB2	1.99	0.45
1:A:16:THR:OG1	1:A:99:ARG:O	2.18	0.45
1:A:1234:VAL:HG12	1:A:1235:THR:O	2.17	0.45
1:A:1735:ILE:HD11	1:A:2156:LEU:HD11	1.99	0.45
1:A:3936:TYR:HD2	1:A:3937:TYR:CD2	2.35	0.45
1:A:4181:ILE:HD11	1:A:4193:ILE:HD11	1.99	0.45
2:B:58:GLY:HA3	2:B:76:ILE:CG2	2.47	0.45
1:C:234:SER:O	1:C:242:ARG:HG2	2.17	0.45
1:C:275:ARG:HA	1:C:338:GLU:OE1	2.17	0.45
1:C:290:TYR:HB2	1:C:307:ALA:CB	2.47	0.45
1:C:788:LYS:HD3	1:C:1629:GLN:OE1	2.17	0.45
1:C:1660:GLN:NE2	1:C:1704:PRO:HB2	2.32	0.45
1:C:3977:GLN:HE22	1:C:4033:GLY:H	1.63	0.45
1:C:4921:PHE:HA	1:C:4925:ILE:CG1	2.47	0.45
1:E:275:ARG:HA	1:E:338:GLU:OE1	2.17	0.45
1:E:276:TRP:CD1	1:E:276:TRP:O	2.69	0.45
1:E:768:PHE:HB3	1:E:771:PHE:HE2	1.82	0.45
1:E:856:VAL:O	1:E:991:ASN:ND2	2.48	0.45
1:E:1074:ILE:HB	1:E:1239:SER:OG	2.17	0.45
1:E:1158:ASN:ND2	1:E:1182:ILE:O	2.50	0.45
1:E:1638:ALA:HA	1:E:1649:ASP:HA	1.98	0.45
1:E:1735:ILE:HD11	1:E:2156:LEU:HD11	1.98	0.45
1:E:2748:PRO:HD2	1:E:2751:LEU:HD12	1.98	0.45
1:E:3936:TYR:HD2	1:E:3937:TYR:CD2	2.35	0.45
1:E:4717:ASP:O	1:E:4720:VAL:HG23	2.17	0.45
1:E:4980:LEU:HA	1:E:4984:ASN:HA	1.98	0.45
1:G:24:CYS:HB3	1:G:200:TRP:CE3	2.52	0.45
1:G:119:SER:O	1:G:136:GLY:N	2.31	0.45
1:G:941:MET:HA	1:G:1051:TYR:HD1	1.82	0.45
1:G:1943:LEU:HD11	1:G:2098:VAL:HG22	1.99	0.45
1:G:4648:LEU:O	1:G:4652:LEU:N	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4851:TYR:HB3	1:G:4916:PHE:CZ	2.52	0.45
1:A:478:PHE:CD1	1:A:529:LEU:HD21	2.52	0.44
1:A:714:TYR:HB2	1:A:757:PHE:CD2	2.52	0.44
1:A:788:LYS:HD3	1:A:1629:GLN:OE1	2.17	0.44
1:A:839:LEU:HD22	1:A:1075:PHE:CE1	2.52	0.44
1:A:1598:GLN:O	1:A:1600:LEU:N	2.49	0.44
1:A:1805:GLU:O	1:A:1808:ARG:HG2	2.17	0.44
1:A:2117:VAL:O	1:A:2120:MET:HB2	2.17	0.44
1:A:2250:MET:HA	1:A:2253:HIS:HD2	1.81	0.44
1:A:2756:ASN:OD1	1:A:2806:ARG:NH2	2.51	0.44
1:A:4143:VAL:O	1:A:4147:LEU:HG	2.17	0.44
1:A:4881:THR:HA	1:A:4884:LEU:HG	1.99	0.44
1:A:4892:ARG:HH22	1:C:4920:PHE:HD2	1.63	0.44
1:A:4991:PHE:O	1:A:4995:LEU:HG	2.17	0.44
1:C:73:LEU:O	1:C:105:HIS:HB3	2.17	0.44
1:C:350:HIS:O	1:C:354:GLY:HA2	2.17	0.44
1:C:530:ILE:HG12	1:C:540:PHE:HE2	1.82	0.44
1:C:662:TRP:CZ3	1:C:814:ALA:HB2	2.52	0.44
1:C:748:LEU:HD21	1:C:777:PHE:HD2	1.82	0.44
1:C:1074:ILE:HB	1:C:1239:SER:OG	2.18	0.44
1:C:1087:ARG:HH11	1:C:1223:PHE:HE1	1.65	0.44
1:C:2248:ARG:HA	1:C:2286:LEU:HD22	1.98	0.44
1:C:2788:HIS:CG	1:C:2789:PRO:HD2	2.52	0.44
1:C:4581:LYS:HE2	1:E:4877:ASP:O	2.17	0.44
1:C:4821:LYS:HD3	1:C:4947:GLN:HE22	1.80	0.44
1:C:4997:ASN:OD1	1:C:4998:LYS:N	2.50	0.44
2:D:11:ASP:OD1	2:D:67:SER:HB2	2.18	0.44
2:D:22:CYS:O	2:D:47:LYS:HA	2.17	0.44
1:E:107:ILE:HD12	1:E:109:LEU:HD21	1.99	0.44
1:E:748:LEU:HD13	1:E:755:ILE:CG1	2.47	0.44
1:E:1090:PHE:CE1	1:E:1151:CYS:HB3	2.51	0.44
1:E:4039:MET:HG3	1:E:4040:ILE:N	2.32	0.44
2:F:74:LEU:O	2:F:98:VAL:HA	2.17	0.44
1:G:839:LEU:HD22	1:G:1075:PHE:CE1	2.52	0.44
1:G:1128:ARG:N	1:G:1142:PRO:HB3	2.31	0.44
1:G:1143:TRP:HE3	1:G:1144:GLN:O	2.01	0.44
2:H:11:ASP:OD1	2:H:67:SER:HB2	2.17	0.44
2:H:74:LEU:HD23	2:H:76:ILE:HD11	1.99	0.44
1:A:103:TYR:CE2	1:A:157:ARG:HB3	2.52	0.44
1:A:599:VAL:O	1:A:602:VAL:HB	2.17	0.44
1:A:941:MET:HA	1:A:1051:TYR:HD1	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1141:ARG:NH1	1:A:1169:LEU:HD11	2.26	0.44
1:A:2059:LEU:CD2	1:A:2062:ARG:HH12	2.20	0.44
1:A:2788:HIS:CG	1:A:2789:PRO:HD2	2.52	0.44
1:A:3906:GLN:HG2	1:A:3909:ASN:HB2	2.00	0.44
1:A:4892:ARG:HH12	1:C:4898:GLY:H	1.64	0.44
1:C:292:ALA:HB3	1:C:302:VAL:HG11	1.99	0.44
1:C:2116:LEU:O	1:C:2120:MET:HG3	2.17	0.44
1:C:2250:MET:HA	1:C:2253:HIS:HD2	1.81	0.44
1:C:3835:LEU:HD22	1:C:3884:LEU:HD11	2.00	0.44
1:C:4991:PHE:O	1:C:4995:LEU:HG	2.17	0.44
1:E:233:ILE:O	1:E:257:ARG:HD2	2.17	0.44
1:E:2244:ARG:NH1	1:E:2285:GLU:OE1	2.50	0.44
1:E:2248:ARG:HA	1:E:2286:LEU:HD22	1.98	0.44
1:E:3811:GLU:O	1:E:3814:GLN:HG3	2.18	0.44
1:E:4056:GLU:O	1:E:4060:LYS:HG2	2.18	0.44
2:F:22:CYS:O	2:F:47:LYS:HA	2.18	0.44
1:G:276:TRP:CD1	1:G:276:TRP:O	2.70	0.44
1:G:639:ASN:ND2	1:G:676:THR:OG1	2.46	0.44
1:G:1158:ASN:ND2	1:G:1182:ILE:O	2.50	0.44
1:G:4686:LEU:HD13	1:G:4692:PRO:HD3	2.00	0.44
1:A:35:LEU:HD12	1:A:35:LEU:O	2.17	0.44
1:A:161:GLU:OE1	1:G:3984:ARG:NH1	2.51	0.44
1:A:274:LEU:HA	1:A:278:GLN:NE2	2.32	0.44
1:A:561:LEU:CD2	1:A:598:LYS:HB3	2.48	0.44
1:A:887:ILE:CG2	1:A:962:SER:HB2	2.47	0.44
1:A:1729:SER:HB2	1:A:2163:ARG:HH11	1.81	0.44
1:A:3996:PHE:O	1:A:4000:MET:HG2	2.17	0.44
1:A:4645:CYS:O	1:A:4649:LEU:N	2.45	0.44
1:A:4887:MET:HA	1:A:4891:VAL:HG23	1.99	0.44
1:A:4924:VAL:HA	1:A:4928:LEU:HD12	1.99	0.44
1:C:35:LEU:HD12	1:C:35:LEU:O	2.18	0.44
1:C:107:ILE:HD12	1:C:109:LEU:HD21	1.99	0.44
1:C:561:LEU:CD2	1:C:598:LYS:HB3	2.48	0.44
1:C:1943:LEU:HD11	1:C:2098:VAL:HG22	1.99	0.44
1:C:1951:LEU:O	1:C:1955:VAL:HG23	2.16	0.44
1:C:2244:ARG:NH1	1:C:2285:GLU:OE1	2.50	0.44
1:C:3811:GLU:O	1:C:3814:GLN:HG3	2.18	0.44
1:E:290:TYR:HB2	1:E:307:ALA:CB	2.48	0.44
1:E:2271:THR:HA	1:E:2272:PRO:HD2	1.85	0.44
1:E:2272:PRO:O	1:E:2275:VAL:HB	2.17	0.44
1:E:2420:HIS:ND1	1:E:2423:MET:SD	2.76	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2556:LEU:HD23	1:E:2559:LEU:CD1	2.48	0.44
1:E:2756:ASN:OD1	1:E:2806:ARG:NH2	2.51	0.44
1:E:3996:PHE:O	1:E:4000:MET:HG2	2.17	0.44
1:G:121:LEU:O	1:G:133:PHE:HB3	2.18	0.44
1:G:203:ASN:OD1	1:G:204:PRO:HD2	2.18	0.44
1:G:674:PHE:HD1	2:H:40:ARG:NH1	2.09	0.44
1:G:1090:PHE:CE1	1:G:1151:CYS:HB3	2.51	0.44
1:G:1294:PRO:CD	1:G:1584:ARG:HH11	2.19	0.44
1:G:2558:VAL:O	1:G:2561:LEU:HG	2.16	0.44
1:G:2825:LYS:HA	1:G:2935:TYR:CD1	2.52	0.44
1:G:4041:ALA:O	1:G:4044:MET:HB3	2.18	0.44
1:G:4251:ILE:HG22	1:G:4557:ARG:NH1	2.32	0.44
1:A:558:SER:O	1:A:561:LEU:HB3	2.17	0.44
1:A:593:HIS:HA	1:A:1597:VAL:HB	1.99	0.44
1:A:1848:LEU:O	1:A:1851:MET:HG2	2.18	0.44
1:A:4856:PHE:CZ	1:G:4581:LYS:HD2	2.47	0.44
1:C:233:ILE:O	1:C:257:ARG:HD2	2.17	0.44
1:C:1439:VAL:O	1:C:1513:ASP:N	2.49	0.44
1:C:4842:GLY:O	1:C:4846:VAL:HG23	2.18	0.44
1:C:4881:THR:HA	1:C:4884:LEU:HG	2.00	0.44
1:E:533:ASN:OD1	1:E:535:ALA:N	2.42	0.44
1:E:567:VAL:O	1:E:571:SER:OG	2.27	0.44
1:E:599:VAL:O	1:E:602:VAL:HB	2.17	0.44
1:E:685:GLY:O	1:E:780:VAL:HB	2.17	0.44
1:E:1848:LEU:O	1:E:1851:MET:HG2	2.18	0.44
1:E:3980:LEU:HA	1:E:3983:SER:OG	2.17	0.44
1:E:4881:THR:HA	1:E:4884:LEU:HG	1.98	0.44
1:G:274:LEU:HA	1:G:278:GLN:NE2	2.32	0.44
1:G:292:ALA:HB3	1:G:302:VAL:HG11	1.99	0.44
1:G:564:LEU:O	1:G:568:LEU:HG	2.16	0.44
1:G:599:VAL:O	1:G:602:VAL:HB	2.17	0.44
1:G:1834:VAL:HG13	1:G:1835:GLU:N	2.32	0.44
1:G:2500:ALA:HA	1:G:2556:LEU:HD21	1.99	0.44
1:A:530:ILE:HG12	1:A:540:PHE:HE2	1.83	0.44
1:A:931:THR:O	1:A:935:LEU:N	2.44	0.44
1:A:4888:TYR:OH	1:C:4898:GLY:CA	2.65	0.44
2:B:11:ASP:OD1	2:B:67:SER:HB2	2.18	0.44
1:C:173:SER:HG	1:C:175:SER:HG	1.63	0.44
1:C:714:TYR:HB2	1:C:757:PHE:CD2	2.53	0.44
1:C:1930:LYS:HG2	1:C:1931:LEU:N	2.33	0.44
1:C:2272:PRO:O	1:C:2275:VAL:HB	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3839:CYS:SG	1:C:3922:TYR:CE1	3.11	0.44
1:C:3936:TYR:HD2	1:C:3937:TYR:CD2	2.35	0.44
1:C:4851:TYR:HB3	1:C:4916:PHE:CZ	2.53	0.44
1:E:73:LEU:O	1:E:105:HIS:HB3	2.17	0.44
1:E:788:LYS:HD3	1:E:1629:GLN:OE1	2.17	0.44
1:E:4844:LEU:HD11	1:E:4891:VAL:HG13	1.99	0.44
1:E:4931:ILE:O	1:E:4935:LEU:HB2	2.18	0.44
2:F:7:ILE:HD12	2:F:71:ARG:HG2	2.00	0.44
1:G:35:LEU:HD12	1:G:35:LEU:O	2.18	0.44
1:G:685:GLY:O	1:G:780:VAL:HB	2.18	0.44
1:G:4218:ILE:HG22	1:G:4950:VAL:HG13	2.00	0.44
1:A:275:ARG:HA	1:A:338:GLU:OE1	2.17	0.44
1:A:662:TRP:CZ3	1:A:814:ALA:HB2	2.52	0.44
1:A:685:GLY:O	1:A:780:VAL:HB	2.17	0.44
1:A:892:THR:N	1:A:902:ARG:HA	2.30	0.44
1:A:1158:ASN:ND2	1:A:1182:ILE:O	2.50	0.44
1:A:3811:GLU:O	1:A:3814:GLN:HG3	2.18	0.44
1:A:3969:ILE:CG1	1:A:3980:LEU:HD11	2.46	0.44
1:C:2929:PHE:O	1:C:2933:ASN:ND2	2.47	0.44
1:C:4056:GLU:O	1:C:4060:LYS:HG2	2.17	0.44
1:C:4181:ILE:HD11	1:C:4193:ILE:HD11	2.00	0.44
1:C:4826:ILE:HG13	1:E:4839:MET:HE1	1.99	0.44
2:D:7:ILE:HD12	2:D:71:ARG:HG2	2.00	0.44
1:E:1598:GLN:O	1:E:1600:LEU:N	2.49	0.44
1:G:234:SER:O	1:G:242:ARG:HG2	2.16	0.44
1:G:372:LEU:O	1:G:374:LYS:N	2.51	0.44
1:G:892:THR:N	1:G:902:ARG:HA	2.30	0.44
1:G:1292:SER:O	1:G:1294:PRO:HD3	2.18	0.44
1:G:4816:ILE:HG13	1:G:4823:LEU:HD22	2.00	0.44
1:G:4921:PHE:HA	1:G:4925:ILE:HG12	2.00	0.44
1:A:235:ALA:HB2	1:A:257:ARG:HD3	1.99	0.44
1:A:314:PHE:HB3	1:A:348:VAL:CG1	2.48	0.44
1:A:2296:GLU:HA	1:A:2299:VAL:HG22	1.99	0.44
1:A:2819:TRP:HH2	1:A:2881:ASN:HB2	1.82	0.44
1:A:4056:GLU:O	1:A:4060:LYS:HG2	2.17	0.44
1:A:4582:VAL:HB	1:A:4628:VAL:HG12	2.00	0.44
1:C:758:ARG:HA	1:C:763:PRO:HA	1.99	0.44
1:C:1158:ASN:ND2	1:C:1182:ILE:O	2.50	0.44
1:C:1201:HIS:CD2	1:C:1202:LEU:H	2.35	0.44
1:C:1638:ALA:HA	1:C:1649:ASP:HA	1.99	0.44
1:C:1848:LEU:O	1:C:1851:MET:HG2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2142:TYR:HE1	1:C:2196:ASN:HD22	1.65	0.44
1:C:2431:ASP:HB2	1:C:2501:SER:HA	2.00	0.44
1:E:35:LEU:HD12	1:E:35:LEU:O	2.18	0.44
1:E:50:GLU:CD	1:E:51:PRO:HD2	2.38	0.44
1:E:438:ILE:HG23	1:E:518:ILE:HD11	1.98	0.44
1:E:941:MET:HA	1:E:1051:TYR:HD1	1.83	0.44
1:E:1292:SER:O	1:E:1294:PRO:HD3	2.18	0.44
1:E:1660:GLN:NE2	1:E:1704:PRO:HB2	2.32	0.44
1:E:2232:CYS:O	1:E:2235:PHE:HB3	2.17	0.44
1:E:2788:HIS:CG	1:E:2789:PRO:HD2	2.53	0.44
1:E:4234:PHE:HZ	1:E:4988:TYR:HB2	1.82	0.44
1:E:4910:GLU:HA	1:E:4913:ARG:HG2	1.99	0.44
1:G:50:GLU:CD	1:G:51:PRO:HD2	2.38	0.44
1:G:275:ARG:HA	1:G:338:GLU:OE1	2.18	0.44
1:G:593:HIS:HA	1:G:1597:VAL:HB	1.99	0.44
1:G:887:ILE:CG2	1:G:962:SER:HB2	2.47	0.44
1:G:2248:ARG:HA	1:G:2286:LEU:HD22	1.99	0.44
1:G:2902:HIS:H	1:G:2905:LEU:HD12	1.83	0.44
1:A:104:GLY:HA2	1:A:150:MET:O	2.18	0.44
1:A:119:SER:HB2	1:A:145:ALA:HB1	2.00	0.44
1:A:121:LEU:O	1:A:133:PHE:HB3	2.18	0.44
1:A:233:ILE:O	1:A:257:ARG:HD2	2.17	0.44
1:A:1143:TRP:HE3	1:A:1144:GLN:O	2.01	0.44
1:A:1154:ASP:HB3	1:A:1157:GLU:HB3	1.98	0.44
1:A:1687:SER:OG	2:B:36:PHE:HB2	2.18	0.44
1:A:1834:VAL:HG13	1:A:1835:GLU:N	2.32	0.44
1:A:2066:LEU:O	1:A:2069:THR:OG1	2.31	0.44
1:A:2358:ILE:CG2	1:C:195:PHE:HE2	2.30	0.44
1:A:4563:ARG:NH1	1:A:4815:ASP:OD1	2.47	0.44
1:A:4581:LYS:HZ3	1:C:4877:ASP:HA	1.83	0.44
1:A:4715:TYR:CG	1:A:4715:TYR:O	2.71	0.44
1:A:4791:TYR:OH	1:A:4815:ASP:HA	2.18	0.44
1:C:14:LEU:HD12	1:C:163:VAL:HG12	1.99	0.44
1:C:672:VAL:O	1:C:680:THR:OG1	2.30	0.44
1:C:833:GLY:HA3	1:C:838:HIS:CD2	2.52	0.44
1:C:1234:VAL:HG12	1:C:1235:THR:O	2.18	0.44
1:C:2232:CYS:O	1:C:2235:PHE:HB3	2.17	0.44
1:C:4931:ILE:O	1:C:4935:LEU:HB2	2.18	0.44
1:C:4984:ASN:O	1:C:4985:LEU:HB2	2.18	0.44
2:D:74:LEU:O	2:D:98:VAL:HA	2.18	0.44
1:E:663:TYR:OH	1:E:802:PHE:O	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1234:VAL:HG12	1:E:1235:THR:O	2.17	0.44
1:E:1858:ASP:O	1:E:1862:ILE:HG12	2.18	0.44
1:E:4791:TYR:OH	1:E:4815:ASP:HA	2.18	0.44
2:F:67:SER:N	2:F:70:GLN:OE1	2.37	0.44
1:G:1082:THR:HG22	1:G:1189:LEU:HG	1.98	0.44
1:G:1687:SER:HG	2:H:36:PHE:HB2	1.83	0.44
1:G:2114:PRO:O	1:G:3704:HIS:NE2	2.39	0.44
1:A:445:LEU:HD23	1:A:521:LEU:HG	2.00	0.44
1:A:862:VAL:HA	1:A:930:LYS:NZ	2.33	0.44
1:A:1074:ILE:HB	1:A:1239:SER:OG	2.18	0.44
1:A:3496:LYS:O	1:A:3513:THR:N	2.51	0.44
1:A:3838:THR:O	1:A:3839:CYS:SG	2.76	0.44
1:A:4910:GLU:HA	1:A:4913:ARG:HG2	2.00	0.44
1:A:4997:ASN:OD1	1:A:4998:LYS:N	2.50	0.44
2:B:22:CYS:O	2:B:47:LYS:HA	2.17	0.44
2:B:67:SER:N	2:B:70:GLN:OE1	2.37	0.44
1:C:411:TYR:O	1:C:415:ILE:HG13	2.18	0.44
1:C:635:THR:OG1	1:C:1638:ALA:O	2.31	0.44
1:C:1655:GLU:OE1	1:C:1655:GLU:N	2.50	0.44
1:C:1735:ILE:HD11	1:C:2156:LEU:HD11	1.99	0.44
1:C:2197:LEU:O	1:C:2201:LEU:HG	2.18	0.44
1:C:2756:ASN:OD1	1:C:2806:ARG:NH2	2.51	0.44
1:C:4582:VAL:HB	1:C:4628:VAL:HG12	2.00	0.44
1:C:4929:LEU:O	1:C:4933:GLN:HG3	2.17	0.44
1:E:569:ILE:HG22	1:E:570:GLU:OE2	2.18	0.44
1:E:1205:GLY:HA3	1:E:1227:ALA:CB	2.43	0.44
1:E:2752:ASP:HA	1:E:2755:ILE:HD12	2.00	0.44
1:E:4251:ILE:HG12	1:E:4553:ASN:HB3	2.00	0.44
2:F:11:ASP:OD1	2:F:67:SER:HB2	2.17	0.44
1:G:71:GLN:O	1:G:107:ILE:HA	2.18	0.44
1:G:73:LEU:O	1:G:105:HIS:HB3	2.17	0.44
1:G:662:TRP:CZ3	1:G:814:ALA:HB2	2.52	0.44
1:G:788:LYS:HD3	1:G:1629:GLN:OE1	2.17	0.44
1:G:1074:ILE:HB	1:G:1239:SER:OG	2.17	0.44
1:G:2244:ARG:NH1	1:G:2285:GLU:OE1	2.50	0.44
1:G:4676:GLU:O	1:G:4680:LYS:HG3	2.17	0.44
1:A:35:LEU:HD13	1:A:49:LEU:HB3	2.00	0.43
1:A:292:ALA:HB3	1:A:302:VAL:HG11	1.99	0.43
1:A:1655:GLU:OE1	1:A:1655:GLU:N	2.51	0.43
1:A:1783:VAL:HG11	2:B:55:VAL:HG12	1.99	0.43
1:A:2460:LEU:HD12	1:C:178:ARG:CZ	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4251:ILE:HG12	1:A:4553:ASN:HB3	1.99	0.43
1:C:2296:GLU:HA	1:C:2299:VAL:HG22	1.99	0.43
1:C:2924:GLN:O	1:C:2928:LYS:HB2	2.18	0.43
1:C:3916:ILE:O	1:C:3919:THR:HG22	2.18	0.43
1:C:4251:ILE:HG12	1:C:4553:ASN:HB3	2.00	0.43
1:C:4924:VAL:HA	1:C:4928:LEU:HD12	2.00	0.43
1:E:21:VAL:HG12	1:E:65:CYS:O	2.18	0.43
1:E:1201:HIS:CD2	1:E:1202:LEU:H	2.35	0.43
1:E:1586:ASN:O	1:E:1588:ALA:N	2.49	0.43
1:E:1655:GLU:OE1	1:E:1655:GLU:N	2.51	0.43
1:E:1666:THR:O	1:E:1669:LEU:HB3	2.18	0.43
1:E:1834:VAL:HG13	1:E:1835:GLU:N	2.31	0.43
1:E:3838:THR:O	1:E:3839:CYS:SG	2.76	0.43
1:E:4842:GLY:O	1:E:4846:VAL:HG23	2.18	0.43
1:G:21:VAL:HG23	1:G:203:ASN:HB3	1.99	0.43
1:G:748:LEU:HD13	1:G:755:ILE:CG1	2.47	0.43
1:G:1655:GLU:N	1:G:1655:GLU:OE1	2.51	0.43
1:G:1808:ARG:HB2	1:G:1854:PHE:HE1	1.83	0.43
1:G:2137:ALA:HA	1:G:2140:ARG:HH11	1.82	0.43
1:G:4715:TYR:O	1:G:4715:TYR:CG	2.70	0.43
1:A:222:LEU:HB3	1:A:388:LEU:HD22	2.00	0.43
1:A:438:ILE:HG23	1:A:518:ILE:HD11	1.99	0.43
1:A:768:PHE:HB3	1:A:771:PHE:HE2	1.82	0.43
1:A:1858:ASP:O	1:A:1862:ILE:HG12	2.17	0.43
1:A:3501:ASP:HA	1:C:1224:GLU:OE2	2.18	0.43
1:A:3839:CYS:SG	1:A:3922:TYR:CE1	3.11	0.43
1:A:4251:ILE:HG22	1:A:4557:ARG:NH1	2.33	0.43
1:C:104:GLY:HA2	1:C:150:MET:O	2.19	0.43
1:C:1224:GLU:HA	1:C:1225:PRO:HD3	1.63	0.43
1:C:2137:ALA:HA	1:C:2140:ARG:HH11	1.83	0.43
1:C:3970:GLN:HE21	1:C:5004:THR:CA	2.30	0.43
1:C:4214:LYS:HE2	1:C:4985:LEU:HD23	1.99	0.43
1:C:4888:TYR:OH	1:E:4898:GLY:O	2.36	0.43
1:E:21:VAL:HG23	1:E:203:ASN:HB3	1.99	0.43
1:E:706:GLY:H	1:E:711:LEU:HD22	1.83	0.43
1:E:714:TYR:HB2	1:E:757:PHE:CD2	2.53	0.43
1:E:748:LEU:HD21	1:E:777:PHE:HD2	1.82	0.43
1:E:984:LEU:O	1:E:988:LEU:HG	2.18	0.43
1:E:1082:THR:HG22	1:E:1189:LEU:HG	1.98	0.43
1:E:2142:TYR:HE1	1:E:2196:ASN:HD22	1.65	0.43
1:E:2338:ALA:O	1:E:2349:ASN:ND2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4735:GLU:O	1:E:4739:GLU:N	2.50	0.43
1:G:314:PHE:HB3	1:G:348:VAL:CG1	2.49	0.43
1:G:454:PRO:HA	1:G:455:PRO:HD3	1.87	0.43
1:G:530:ILE:HG12	1:G:540:PHE:HE2	1.83	0.43
1:G:649:PHE:HB3	1:G:776:LEU:HB3	1.98	0.43
1:G:1858:ASP:O	1:G:1862:ILE:HG12	2.17	0.43
1:G:3786:CYS:SG	1:G:3794:VAL:HG22	2.58	0.43
1:G:3840:SER:OG	1:G:3878:ASP:OD1	2.26	0.43
1:A:21:VAL:HG23	1:A:203:ASN:HB3	1.99	0.43
1:A:290:TYR:HB2	1:A:307:ALA:CB	2.47	0.43
1:A:1201:HIS:CD2	1:A:1202:LEU:H	2.35	0.43
1:A:1224:GLU:OE2	1:G:3501:ASP:CB	2.67	0.43
1:A:2197:LEU:O	1:A:2201:LEU:HG	2.19	0.43
1:A:2556:LEU:HD23	1:A:2559:LEU:CD1	2.47	0.43
1:A:3835:LEU:HD22	1:A:3884:LEU:HD11	2.01	0.43
1:C:203:ASN:OD1	1:C:204:PRO:HD2	2.18	0.43
1:C:276:TRP:CZ3	1:C:338:GLU:HB3	2.54	0.43
1:C:748:LEU:HD13	1:C:755:ILE:CG1	2.47	0.43
1:C:1292:SER:O	1:C:1294:PRO:HD3	2.17	0.43
1:C:3496:LYS:O	1:C:3513:THR:N	2.51	0.43
1:C:3716:LEU:N	1:C:3789:GLU:OE2	2.51	0.43
1:C:3980:LEU:HA	1:C:3983:SER:OG	2.18	0.43
1:C:4578:LEU:HG	1:E:4880:MET:HB2	1.99	0.43
1:C:4826:ILE:HG12	1:E:4839:MET:CE	2.47	0.43
1:C:4834:GLY:O	1:C:4837:LEU:HB3	2.18	0.43
2:D:38:SER:O	2:D:41:ASP:HB2	2.18	0.43
2:D:73:LYS:HA	2:D:99:PHE:O	2.19	0.43
1:E:121:LEU:O	1:E:133:PHE:HB3	2.18	0.43
1:E:530:ILE:HG12	1:E:540:PHE:HE2	1.83	0.43
1:E:758:ARG:HA	1:E:763:PRO:HA	2.00	0.43
1:E:2116:LEU:O	1:E:2120:MET:HG3	2.17	0.43
1:E:2198:MET:HE3	1:E:2203:MET:SD	2.58	0.43
1:E:3496:LYS:O	1:E:3513:THR:N	2.52	0.43
1:G:69:LEU:HD13	1:G:101:LEU:HD11	2.00	0.43
1:G:3914:ASN:OD1	1:G:3916:ILE:HB	2.18	0.43
1:G:4801:LEU:O	1:G:4805:ASN:N	2.45	0.43
1:G:4913:ARG:O	1:G:4917:ASP:N	2.46	0.43
1:A:234:SER:O	1:A:242:ARG:HG2	2.19	0.43
1:A:1087:ARG:HH11	1:A:1223:PHE:HE1	1.65	0.43
1:A:2116:LEU:O	1:A:2120:MET:HG3	2.17	0.43
1:A:3980:LEU:HA	1:A:3983:SER:OG	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4951:LYS:O	1:A:4955:GLU:HG2	2.18	0.43
1:A:4984:ASN:O	1:A:4985:LEU:HB2	2.18	0.43
2:B:7:ILE:HD12	2:B:71:ARG:HG2	2.00	0.43
1:C:758:ARG:HH12	1:C:763:PRO:HD3	1.82	0.43
1:C:2173:GLN:CG	1:C:2174:GLU:H	2.21	0.43
1:C:2793:PRO:O	1:C:2796:THR:OG1	2.29	0.43
1:C:3906:GLN:HG2	1:C:3909:ASN:HB2	2.00	0.43
1:E:314:PHE:HB3	1:E:348:VAL:CG1	2.48	0.43
1:E:788:LYS:HB2	1:E:1629:GLN:HG3	2.00	0.43
1:E:1143:TRP:HE3	1:E:1144:GLN:O	2.01	0.43
1:E:2142:TYR:CE2	1:E:2197:LEU:HB2	2.54	0.43
1:E:3839:CYS:SG	1:E:3922:TYR:CE1	3.11	0.43
1:E:3969:ILE:CG1	1:E:3980:LEU:HD11	2.46	0.43
1:E:4984:ASN:O	1:E:4985:LEU:HB2	2.18	0.43
1:E:4991:PHE:O	1:E:4995:LEU:HG	2.18	0.43
2:F:73:LYS:HA	2:F:99:PHE:O	2.19	0.43
1:G:411:TYR:O	1:G:415:ILE:HG13	2.18	0.43
1:G:1666:THR:O	1:G:1669:LEU:HB3	2.19	0.43
1:G:1768:THR:O	1:G:1769:THR:OG1	2.23	0.43
1:G:3969:ILE:CD1	1:G:3980:LEU:HD11	2.48	0.43
1:G:4661:TYR:HA	1:G:4664:LEU:HB3	2.00	0.43
1:G:4887:MET:HA	1:G:4891:VAL:CG2	2.48	0.43
1:A:411:TYR:O	1:A:415:ILE:HG13	2.18	0.43
1:A:569:ILE:HG22	1:A:570:GLU:OE2	2.18	0.43
1:A:660:GLY:HA2	1:A:750:LEU:HD22	2.00	0.43
1:A:748:LEU:HD13	1:A:755:ILE:CG1	2.47	0.43
1:A:858:THR:HG21	1:A:992:GLY:HA2	2.01	0.43
1:A:1074:ILE:HG22	1:A:1075:PHE:N	2.34	0.43
1:A:2745:VAL:HB	1:A:2814:LYS:HB3	1.99	0.43
1:A:2902:HIS:H	1:A:2905:LEU:HD12	1.83	0.43
1:C:50:GLU:CD	1:C:51:PRO:HD2	2.38	0.43
1:C:121:LEU:O	1:C:133:PHE:HB3	2.18	0.43
1:C:706:GLY:H	1:C:711:LEU:HD22	1.83	0.43
1:C:1078:GLU:HB2	1:C:1235:THR:OG1	2.19	0.43
1:C:1152:MET:SD	1:C:1223:PHE:HD2	2.42	0.43
1:C:4202:ARG:O	1:C:4206:GLU:HG2	2.19	0.43
1:C:4580:TYR:HB2	1:C:4631:PHE:CD1	2.53	0.43
1:C:4715:TYR:O	1:C:4715:TYR:CG	2.71	0.43
1:E:71:GLN:O	1:E:107:ILE:HA	2.18	0.43
1:E:411:TYR:O	1:E:415:ILE:HG13	2.19	0.43
1:E:758:ARG:HH12	1:E:763:PRO:HD3	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1040:CYS:O	1:E:1044:ARG:N	2.52	0.43
1:G:21:VAL:HG12	1:G:65:CYS:O	2.18	0.43
1:G:35:LEU:HD13	1:G:49:LEU:HB3	2.00	0.43
1:G:103:TYR:CE2	1:G:157:ARG:HB3	2.54	0.43
1:G:178:ARG:HB2	1:G:193:ALA:HB1	2.01	0.43
1:G:317:ARG:HG3	1:G:356:TRP:CH2	2.53	0.43
1:G:768:PHE:HB3	1:G:771:PHE:HE2	1.82	0.43
1:G:864:PRO:HG2	1:G:867:LEU:HD12	2.01	0.43
1:G:1091:GLU:HB2	1:G:1203:ASN:O	2.18	0.43
1:G:1201:HIS:CD2	1:G:1202:LEU:H	2.35	0.43
1:G:1685:LEU:HD23	1:G:1685:LEU:HA	1.75	0.43
1:G:2155:LEU:HD13	1:G:2188:ASN:OD1	2.19	0.43
1:G:2272:PRO:O	1:G:2275:VAL:HB	2.18	0.43
1:G:2296:GLU:HA	1:G:2299:VAL:HG22	1.99	0.43
1:G:3962:PHE:HZ	1:G:3992:PHE:CE2	2.36	0.43
1:G:4552:LEU:O	1:G:4555:LEU:HB3	2.18	0.43
1:A:706:GLY:H	1:A:711:LEU:HD22	1.83	0.43
1:A:1040:CYS:O	1:A:1044:ARG:N	2.52	0.43
1:A:1704:PRO:HG2	1:A:1707:LEU:HD12	2.01	0.43
1:A:2142:TYR:CE2	1:A:2197:LEU:HB2	2.54	0.43
1:A:2752:ASP:HA	1:A:2755:ILE:HD12	2.00	0.43
1:A:2929:PHE:O	1:A:2933:ASN:ND2	2.47	0.43
1:A:3716:LEU:N	1:A:3789:GLU:OE2	2.51	0.43
1:A:4010:ILE:HA	1:A:4013:LEU:HB3	2.01	0.43
1:A:4581:LYS:HD2	1:C:4856:PHE:CZ	2.50	0.43
1:A:4813:LEU:HD12	1:A:4814:LEU:N	2.34	0.43
1:C:119:SER:HB2	1:C:145:ALA:HB1	2.01	0.43
1:C:569:ILE:HG22	1:C:570:GLU:OE2	2.18	0.43
1:C:1143:TRP:HE3	1:C:1144:GLN:O	2.01	0.43
1:C:1666:THR:O	1:C:1669:LEU:HB3	2.19	0.43
1:E:276:TRP:CZ3	1:E:338:GLU:HB3	2.54	0.43
1:E:372:LEU:O	1:E:374:LYS:N	2.50	0.43
1:E:572:PRO:O	1:E:575:LEU:HB2	2.19	0.43
1:E:623:GLU:OE1	2:F:88:PRO:HA	2.18	0.43
1:E:1105:ALA:HB3	1:E:1191:VAL:HG21	2.00	0.43
1:E:1130:GLN:HB2	1:E:1138:PRO:HA	2.00	0.43
1:E:2155:LEU:HD13	1:E:2188:ASN:OD1	2.18	0.43
1:E:2902:HIS:H	1:E:2905:LEU:HD12	1.83	0.43
1:E:3835:LEU:HD22	1:E:3884:LEU:HD11	2.00	0.43
1:E:4143:VAL:O	1:E:4147:LEU:HG	2.17	0.43
1:E:4251:ILE:HG22	1:E:4557:ARG:NH1	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4997:ASN:OD1	1:E:4998:LYS:N	2.51	0.43
1:G:1297:PHE:HB2	1:G:1545:ASN:HA	2.01	0.43
1:G:1930:LYS:HG2	1:G:1931:LEU:N	2.33	0.43
1:G:4013:LEU:O	1:G:4017:LEU:HG	2.18	0.43
1:G:4036:VAL:HG12	1:G:4037:ASN:N	2.34	0.43
1:A:287:THR:O	1:A:405:HIS:CE1	2.72	0.43
1:A:548:VAL:O	1:A:551:LEU:HG	2.18	0.43
1:A:748:LEU:HD21	1:A:777:PHE:HD2	1.83	0.43
1:A:2123:LEU:HA	1:A:2123:LEU:HD23	1.77	0.43
1:A:2137:ALA:HA	1:A:2140:ARG:HH11	1.83	0.43
1:A:2338:ALA:O	1:A:2349:ASN:ND2	2.51	0.43
1:C:633:LEU:HD22	1:C:1663:HIS:HD2	1.84	0.43
1:C:2142:TYR:CE2	1:C:2197:LEU:HB2	2.53	0.43
1:C:3756:LYS:O	1:C:3760:LYS:HB2	2.18	0.43
1:C:3758:MET:HG3	1:C:3759:GLU:N	2.34	0.43
1:E:104:GLY:HA2	1:E:150:MET:O	2.18	0.43
1:E:1074:ILE:HG22	1:E:1075:PHE:N	2.34	0.43
1:E:1091:GLU:HB2	1:E:1203:ASN:O	2.18	0.43
1:E:1514:LEU:HD12	1:E:1514:LEU:N	2.34	0.43
1:E:1930:LYS:HG2	1:E:1931:LEU:N	2.34	0.43
1:E:3716:LEU:N	1:E:3789:GLU:OE2	2.51	0.43
1:E:3906:GLN:HG2	1:E:3909:ASN:HB2	2.01	0.43
1:E:4202:ARG:O	1:E:4206:GLU:HG2	2.19	0.43
1:E:4715:TYR:CG	1:E:4715:TYR:O	2.71	0.43
2:F:38:SER:O	2:F:41:ASP:HB2	2.18	0.43
1:G:561:LEU:CD2	1:G:598:LYS:HB3	2.48	0.43
1:G:569:ILE:HG22	1:G:570:GLU:OE2	2.19	0.43
1:G:714:TYR:HB2	1:G:757:PHE:CD2	2.53	0.43
1:G:748:LEU:HD21	1:G:777:PHE:HD2	1.82	0.43
1:G:1040:CYS:O	1:G:1044:ARG:N	2.51	0.43
1:G:2142:TYR:HE1	1:G:2196:ASN:ND2	2.17	0.43
1:G:2855:TYR:CD2	1:G:2857:PRO:HD3	2.54	0.43
1:G:4988:TYR:O	1:G:4991:PHE:HB3	2.17	0.43
1:A:80:GLU:OE1	1:G:3938:SER:OG	2.35	0.43
1:A:1088:TRP:CZ3	1:A:1226:PHE:HD1	2.36	0.43
1:A:1691:GLN:O	1:A:1695:LEU:HG	2.19	0.43
1:A:4833:ASN:OD1	1:A:4836:GLN:HG2	2.19	0.43
1:C:21:VAL:HG12	1:C:65:CYS:O	2.18	0.43
1:C:71:GLN:O	1:C:107:ILE:HA	2.18	0.43
1:C:222:LEU:HB3	1:C:388:LEU:HD22	2.00	0.43
1:C:593:HIS:HA	1:C:1597:VAL:HB	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:984:LEU:O	1:C:988:LEU:HG	2.19	0.43
1:C:1687:SER:OG	2:D:36:PHE:HB2	2.19	0.43
1:C:1808:ARG:HB2	1:C:1854:PHE:HE1	1.82	0.43
1:C:4251:ILE:HG22	1:C:4557:ARG:NH1	2.33	0.43
1:C:4910:GLU:HA	1:C:4913:ARG:HG2	2.00	0.43
1:E:245:VAL:HG21	1:E:300:VAL:HA	2.01	0.43
1:E:287:THR:O	1:E:405:HIS:CE1	2.72	0.43
1:E:317:ARG:HG3	1:E:356:TRP:CH2	2.54	0.43
1:E:660:GLY:HA2	1:E:750:LEU:HD22	2.00	0.43
1:E:1835:GLU:OE2	1:E:1935:VAL:HG23	2.18	0.43
1:E:3756:LYS:O	1:E:3760:LYS:HB2	2.19	0.43
1:E:3891:LEU:HB3	1:E:3899:PHE:CE2	2.53	0.43
1:E:4041:ALA:O	1:E:4044:MET:HB3	2.19	0.43
1:E:4645:CYS:O	1:E:4649:LEU:N	2.45	0.43
1:G:1459:GLN:HE21	1:G:1459:GLN:HB2	1.60	0.43
1:G:1676:LEU:HG	1:G:1721:GLU:OE2	2.18	0.43
1:G:1835:GLU:OE2	1:G:1935:VAL:HG23	2.18	0.43
1:G:2360:LYS:HA	1:G:2360:LYS:HD2	1.89	0.43
1:G:3935:TRP:HZ2	1:G:3994:HIS:HE1	1.66	0.43
1:G:4976:GLU:HB2	1:G:4980:LEU:HD12	1.99	0.43
1:G:4983:HIS:C	1:G:4985:LEU:N	2.67	0.43
1:A:717:ASP:CG	2:B:7:ILE:HA	2.39	0.43
1:A:788:LYS:HB2	1:A:1629:GLN:HG3	2.00	0.43
1:C:372:LEU:O	1:C:374:LYS:N	2.51	0.43
1:C:685:GLY:O	1:C:780:VAL:HB	2.18	0.43
1:C:1723:ALA:O	1:C:1727:ARG:HB2	2.19	0.43
1:C:2155:LEU:HD13	1:C:2188:ASN:OD1	2.19	0.43
1:C:2902:HIS:H	1:C:2905:LEU:HD12	1.83	0.43
1:C:2907:PRO:O	1:C:2910:THR:OG1	2.24	0.43
1:C:4039:MET:HG3	1:C:4040:ILE:N	2.34	0.43
1:C:4802:GLY:HA2	1:C:4809:PHE:HB2	2.00	0.43
1:E:60:PRO:O	1:E:290:TYR:OH	2.33	0.43
1:E:203:ASN:OD1	1:E:204:PRO:HD2	2.18	0.43
1:E:702:TRP:HZ2	1:E:1640:HIS:HD1	1.67	0.43
1:E:1087:ARG:HH11	1:E:1223:PHE:HE1	1.65	0.43
1:E:1848:LEU:HD12	1:E:1851:MET:SD	2.59	0.43
1:E:4826:ILE:O	1:E:4829:SER:HB2	2.18	0.43
1:E:4851:TYR:HB3	1:E:4916:PHE:CZ	2.53	0.43
1:G:104:GLY:HA2	1:G:150:MET:O	2.19	0.43
1:G:572:PRO:O	1:G:575:LEU:HB2	2.19	0.43
1:G:758:ARG:HH12	1:G:763:PRO:HD3	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1078:GLU:HB2	1:G:1235:THR:OG1	2.18	0.43
1:G:1110:ARG:HB2	1:G:1113:VAL:HG23	2.01	0.43
1:G:1152:MET:SD	1:G:1223:PHE:HD2	2.42	0.43
1:G:2424:SER:HA	1:G:2427:ALA:HB3	2.00	0.43
1:G:3877:ASP:O	1:G:3880:PHE:HB3	2.19	0.43
1:G:4555:LEU:HD11	1:G:4656:LEU:HG	1.99	0.43
1:G:4737:ILE:O	1:G:4740:LEU:HB3	2.19	0.43
1:A:21:VAL:HG12	1:A:65:CYS:O	2.18	0.43
1:A:116:MET:HE2	1:A:139:GLU:OE2	2.19	0.43
1:A:179:TYR:OH	1:G:2359:ARG:CZ	2.66	0.43
1:A:317:ARG:HG3	1:A:356:TRP:CH2	2.53	0.43
1:A:864:PRO:HG2	1:A:867:LEU:HD12	2.01	0.43
1:A:1930:LYS:HG2	1:A:1931:LEU:N	2.33	0.43
1:A:4039:MET:HG3	1:A:4040:ILE:N	2.34	0.43
1:A:4843:LEU:O	1:A:4847:VAL:HG23	2.18	0.43
2:B:73:LYS:HA	2:B:99:PHE:O	2.19	0.43
1:C:287:THR:O	1:C:405:HIS:CE1	2.72	0.43
1:C:1287:LEU:HD13	1:C:1556:PRO:HD3	2.01	0.43
1:C:4836:GLN:HB3	1:C:4935:LEU:HD11	2.00	0.43
1:C:4887:MET:HA	1:C:4891:VAL:HG23	1.99	0.43
1:E:103:TYR:CE2	1:E:157:ARG:HB3	2.54	0.43
1:E:178:ARG:HB2	1:E:193:ALA:HB1	2.01	0.43
1:E:222:LEU:HB3	1:E:388:LEU:HD22	2.00	0.43
1:E:445:LEU:HD23	1:E:521:LEU:HG	2.01	0.43
1:E:647:ASN:N	1:E:822:ARG:O	2.52	0.43
1:E:717:ASP:CG	2:F:7:ILE:HA	2.39	0.43
1:E:737:LEU:HD11	2:F:7:ILE:CG2	2.44	0.43
1:E:1152:MET:SD	1:E:1223:PHE:HD2	2.42	0.43
1:E:1294:PRO:O	1:E:1584:ARG:NE	2.52	0.43
1:E:1440:PHE:CB	1:E:1512:THR:HG22	2.49	0.43
1:E:1691:GLN:O	1:E:1695:LEU:HG	2.19	0.43
1:E:3758:MET:HG3	1:E:3759:GLU:N	2.34	0.43
1:E:4181:ILE:HD11	1:E:4193:ILE:HD11	2.01	0.43
1:E:4826:ILE:HD11	1:G:4839:MET:CE	2.48	0.43
1:E:4836:GLN:HB3	1:E:4935:LEU:HD11	2.01	0.43
1:E:4892:ARG:HG3	1:G:4921:PHE:CE1	2.54	0.43
1:E:4920:PHE:O	1:E:4924:VAL:HB	2.19	0.43
1:G:145:ALA:HA	1:G:175:SER:HB3	2.01	0.43
1:G:317:ARG:N	1:G:347:PHE:O	2.52	0.43
1:G:758:ARG:HA	1:G:763:PRO:HA	2.01	0.43
1:G:1735:ILE:HD11	1:G:2156:LEU:HD11	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1762:LEU:HD21	1:G:1860:LYS:NZ	2.34	0.43
1:G:2123:LEU:HD23	1:G:2123:LEU:HA	1.72	0.43
1:G:2197:LEU:O	1:G:2201:LEU:HG	2.19	0.43
1:G:3817:LEU:HD11	1:G:3821:LYS:HE2	2.00	0.43
1:G:4183:ILE:HD13	1:G:4193:ILE:HD13	2.01	0.43
1:A:50:GLU:CD	1:A:51:PRO:HD2	2.38	0.42
1:A:1078:GLU:HB2	1:A:1235:THR:OG1	2.18	0.42
1:A:2500:ALA:HA	1:A:2556:LEU:HD21	2.01	0.42
1:A:2876:GLU:OE2	1:A:2916:LYS:HD3	2.19	0.42
1:A:3758:MET:HG3	1:A:3759:GLU:N	2.34	0.42
1:A:4059:LEU:HA	1:A:4062:PHE:HD2	1.84	0.42
1:A:4218:ILE:HG22	1:A:4950:VAL:HG13	2.01	0.42
1:A:4238:CYS:O	1:A:4242:ILE:HG13	2.19	0.42
2:B:38:SER:O	2:B:41:ASP:HB2	2.18	0.42
1:C:21:VAL:HG23	1:C:203:ASN:HB3	1.99	0.42
1:C:445:LEU:HD23	1:C:521:LEU:HG	2.01	0.42
1:C:717:ASP:CG	2:D:7:ILE:HA	2.39	0.42
1:C:788:LYS:HB2	1:C:1629:GLN:HG3	2.00	0.42
1:C:1074:ILE:HG22	1:C:1075:PHE:N	2.34	0.42
1:C:1294:PRO:O	1:C:1584:ARG:NE	2.52	0.42
1:C:1845:VAL:HG13	1:C:1854:PHE:HE2	1.84	0.42
1:C:1855:GLY:O	1:C:1858:ASP:HB2	2.19	0.42
1:C:2458:ARG:O	1:C:2464:ASP:N	2.52	0.42
1:C:4059:LEU:HA	1:C:4062:PHE:HD2	1.84	0.42
1:C:4208:PRO:HG2	1:C:4210:VAL:HG23	2.01	0.42
1:C:4791:TYR:OH	1:C:4815:ASP:HA	2.19	0.42
1:E:317:ARG:N	1:E:347:PHE:O	2.52	0.42
1:E:561:LEU:CD2	1:E:598:LYS:HB3	2.48	0.42
1:E:1723:ALA:O	1:E:1727:ARG:HB2	2.19	0.42
1:E:4010:ILE:HA	1:E:4013:LEU:HB3	2.01	0.42
1:G:233:ILE:O	1:G:257:ARG:HD2	2.18	0.42
1:G:642:THR:OG1	1:G:1617:THR:HG21	2.19	0.42
1:G:984:LEU:O	1:G:988:LEU:HG	2.18	0.42
1:G:1087:ARG:HH11	1:G:1223:PHE:HE1	1.65	0.42
1:G:1130:GLN:HB2	1:G:1138:PRO:HA	2.00	0.42
1:G:1294:PRO:O	1:G:1584:ARG:NE	2.52	0.42
1:G:2094:LEU:O	1:G:2098:VAL:HG23	2.19	0.42
1:G:2556:LEU:HD23	1:G:2559:LEU:CD1	2.49	0.42
1:G:3724:ALA:O	1:G:3727:ASP:HB2	2.19	0.42
1:G:3933:PHE:O	1:G:3937:TYR:HD2	2.01	0.42
1:G:4033:GLY:HA2	1:G:4189:ARG:NH1	2.25	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4582:VAL:HB	1:G:4628:VAL:HG12	2.01	0.42
1:A:984:LEU:O	1:A:988:LEU:HG	2.19	0.42
1:A:1152:MET:SD	1:A:1223:PHE:HD2	2.42	0.42
1:A:2155:LEU:HD13	1:A:2188:ASN:OD1	2.19	0.42
1:A:4851:TYR:HB3	1:A:4916:PHE:CZ	2.54	0.42
1:A:4898:GLY:CA	1:G:4888:TYR:OH	2.67	0.42
1:A:4920:PHE:O	1:A:4924:VAL:HB	2.20	0.42
1:C:548:VAL:O	1:C:551:LEU:HG	2.18	0.42
1:C:771:PHE:HE1	1:C:1472:VAL:HG13	1.84	0.42
1:C:1586:ASN:O	1:C:1588:ALA:N	2.49	0.42
1:C:1768:THR:C	1:C:1769:THR:HG1	2.20	0.42
1:C:1858:ASP:O	1:C:1862:ILE:HG12	2.18	0.42
1:C:2424:SER:HA	1:C:2427:ALA:HB3	2.01	0.42
1:C:2500:ALA:HA	1:C:2556:LEU:HD21	2.00	0.42
1:E:514:SER:O	1:E:518:ILE:HG13	2.19	0.42
1:E:548:VAL:O	1:E:551:LEU:HG	2.18	0.42
1:E:607:CYS:HB2	1:E:1672:ALA:HB1	2.01	0.42
1:E:771:PHE:HE1	1:E:1472:VAL:HG13	1.84	0.42
1:E:1087:ARG:HD2	1:E:1223:PHE:CE1	2.54	0.42
1:E:1689:VAL:HG22	1:E:1694:LEU:HD11	2.01	0.42
1:E:2137:ALA:HA	1:E:2140:ARG:HH11	1.83	0.42
1:E:2197:LEU:O	1:E:2201:LEU:HG	2.18	0.42
1:E:4055:VAL:O	1:E:4059:LEU:HG	2.19	0.42
1:G:340:LYS:HG3	1:G:342:GLY:N	2.35	0.42
1:G:660:GLY:HA2	1:G:750:LEU:HD22	2.01	0.42
1:G:828:GLU:HG3	1:G:840:VAL:HG21	2.01	0.42
1:G:1687:SER:OG	2:H:36:PHE:HB2	2.20	0.42
1:G:4141:PHE:CE1	1:G:4178:LEU:HA	2.54	0.42
1:A:178:ARG:CZ	1:G:2460:LEU:HD12	2.49	0.42
1:A:203:ASN:OD1	1:A:204:PRO:HD2	2.18	0.42
1:A:533:ASN:OD1	1:A:535:ALA:N	2.42	0.42
1:A:1835:GLU:OE2	1:A:1935:VAL:HG23	2.18	0.42
1:A:3916:ILE:O	1:A:3919:THR:HG22	2.19	0.42
1:A:4013:LEU:O	1:A:4017:LEU:HG	2.19	0.42
1:A:4582:VAL:HG12	1:A:4629:TYR:HD1	1.85	0.42
1:A:4717:ASP:O	1:A:4719:PHE:N	2.48	0.42
1:C:314:PHE:HB3	1:C:348:VAL:CG1	2.49	0.42
1:C:1091:GLU:HB2	1:C:1203:ASN:O	2.18	0.42
1:C:1105:ALA:HB3	1:C:1191:VAL:HG21	2.00	0.42
1:C:5022:PHE:HA	1:C:5023:PRO:HD3	1.93	0.42
1:E:520:ASN:HB2	1:E:556:ALA:HB1	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:593:HIS:HA	1:E:1597:VAL:HB	2.00	0.42
1:E:633:LEU:HD22	1:E:1663:HIS:HD2	1.85	0.42
1:E:887:ILE:CG2	1:E:962:SER:HB2	2.48	0.42
1:E:1227:ALA:HA	1:E:1230:MET:HG2	2.01	0.42
1:E:1459:GLN:HE21	1:E:1459:GLN:HB2	1.54	0.42
1:E:1943:LEU:HD11	1:E:2098:VAL:HG22	2.00	0.42
1:E:2431:ASP:HB2	1:E:2501:SER:HA	2.01	0.42
1:E:3916:ILE:O	1:E:3919:THR:HG22	2.19	0.42
1:E:4034:ASN:HD21	1:E:4040:ILE:CG2	2.33	0.42
1:E:4041:ALA:O	1:E:4045:VAL:HG23	2.20	0.42
1:E:4073:GLY:H	1:E:4128:PHE:HE2	1.68	0.42
1:E:4214:LYS:HE2	1:E:4985:LEU:HD23	1.99	0.42
1:E:4710:SER:OG	1:E:4772:ASP:OD2	2.35	0.42
1:G:245:VAL:HG21	1:G:300:VAL:HA	2.01	0.42
1:G:670:GLU:O	1:G:787:VAL:HG13	2.19	0.42
1:G:788:LYS:HB2	1:G:1629:GLN:HG3	2.00	0.42
1:G:927:GLU:O	1:G:930:LYS:HB2	2.19	0.42
1:G:1074:ILE:HG22	1:G:1075:PHE:N	2.34	0.42
1:G:4013:LEU:O	1:G:4017:LEU:N	2.52	0.42
1:G:4118:ASP:O	1:G:4120:ASN:N	2.52	0.42
1:G:4832:HIS:CE1	1:G:4833:ASN:HB2	2.54	0.42
2:H:7:ILE:HG13	2:H:73:LYS:N	2.35	0.42
2:H:11:ASP:OD2	2:H:68:VAL:HB	2.20	0.42
1:A:14:LEU:HD12	1:A:163:VAL:HG12	2.00	0.42
1:A:71:GLN:O	1:A:107:ILE:HA	2.18	0.42
1:A:359:TYR:OH	1:A:385:ASP:OD2	2.28	0.42
1:A:737:LEU:HB3	1:A:738:LEU:H	1.56	0.42
1:A:1676:LEU:HG	1:A:1721:GLU:OE2	2.19	0.42
2:B:92:PRO:HA	2:B:93:PRO:HD3	1.91	0.42
1:C:35:LEU:HD13	1:C:49:LEU:HB3	2.00	0.42
1:C:103:TYR:CE2	1:C:157:ARG:HB3	2.54	0.42
1:C:245:VAL:HG21	1:C:300:VAL:HA	2.01	0.42
1:C:1040:CYS:O	1:C:1044:ARG:N	2.52	0.42
1:C:1130:GLN:HB2	1:C:1138:PRO:HA	2.00	0.42
1:C:1864:LYS:NZ	1:C:1869:GLU:C	2.73	0.42
1:C:2338:ALA:O	1:C:2349:ASN:ND2	2.52	0.42
1:C:4013:LEU:O	1:C:4017:LEU:HG	2.19	0.42
1:C:4653:VAL:O	1:C:4657:CYS:N	2.45	0.42
1:C:4920:PHE:O	1:C:4924:VAL:HB	2.19	0.42
1:E:1133:HIS:CE1	1:E:1134:LEU:HG	2.55	0.42
1:E:1687:SER:OG	2:F:36:PHE:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2359:ARG:CZ	1:G:179:TYR:OH	2.67	0.42
1:G:1227:ALA:HA	1:G:1230:MET:HG2	2.01	0.42
1:G:1855:GLY:O	1:G:1858:ASP:HB2	2.19	0.42
1:G:2142:TYR:CE2	1:G:2197:LEU:HB2	2.54	0.42
1:G:2806:ARG:HB3	1:G:2810:LYS:HE3	2.01	0.42
1:G:4137:ARG:HD2	1:G:4177:TYR:CE2	2.55	0.42
1:G:4997:ASN:OD1	1:G:4998:LYS:N	2.52	0.42
1:A:771:PHE:HE1	1:A:1472:VAL:HG13	1.84	0.42
1:A:1119:GLU:C	1:A:1133:HIS:HE2	2.22	0.42
1:A:1452:TRP:HB3	1:A:1550:PRO:HA	2.02	0.42
1:A:2258:LEU:HA	1:A:2261:SER:OG	2.20	0.42
1:A:2431:ASP:HB2	1:A:2501:SER:HA	2.01	0.42
1:A:3718:GLU:HG3	1:A:3719:ASP:N	2.35	0.42
1:A:4073:GLY:H	1:A:4128:PHE:HE2	1.67	0.42
1:A:4826:ILE:CG1	1:C:4839:MET:CE	2.98	0.42
1:A:5004:THR:O	1:A:5007:GLU:HG2	2.20	0.42
2:B:42:ARG:C	2:B:44:LYS:H	2.23	0.42
2:B:74:LEU:O	2:B:98:VAL:HA	2.18	0.42
1:C:702:TRP:HZ2	1:C:1640:HIS:HD1	1.68	0.42
1:C:1835:GLU:OE2	1:C:1935:VAL:HG23	2.18	0.42
1:C:1857:GLU:O	1:C:1860:LYS:HB2	2.20	0.42
1:C:3811:GLU:HG2	1:C:3812:VAL:N	2.35	0.42
2:D:16:PRO:HG3	2:D:106:LEU:HD21	2.02	0.42
1:E:35:LEU:HD13	1:E:49:LEU:HB3	2.00	0.42
1:E:1808:ARG:HB2	1:E:1854:PHE:HE1	1.84	0.42
1:G:287:THR:O	1:G:405:HIS:CE1	2.72	0.42
1:G:514:SER:O	1:G:518:ILE:HG13	2.19	0.42
1:G:548:VAL:O	1:G:551:LEU:HG	2.19	0.42
1:G:580:GLU:HB3	1:G:620:LEU:HD11	2.02	0.42
1:G:1799:SER:HA	1:G:1800:PRO:HD2	1.92	0.42
1:G:2819:TRP:HH2	1:G:2881:ASN:HB2	1.84	0.42
1:G:2879:ALA:HB2	1:G:2920:ARG:HA	2.00	0.42
1:G:3968:TYR:O	1:G:3976:ASN:ND2	2.52	0.42
1:G:4219:PHE:O	1:G:4223:ASN:HB2	2.19	0.42
1:G:4789:PHE:O	1:G:4793:GLY:N	2.46	0.42
1:A:178:ARG:HB2	1:A:193:ALA:HB1	2.01	0.42
1:A:216:GLY:HA3	1:A:264:PRO:CD	2.50	0.42
1:A:245:VAL:HG21	1:A:300:VAL:HA	2.00	0.42
1:A:276:TRP:CZ3	1:A:338:GLU:HB3	2.54	0.42
1:A:1834:VAL:HG13	1:A:1835:GLU:H	1.85	0.42
1:A:2745:VAL:CG2	1:A:2818:ALA:HB2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2855:TYR:CD2	1:A:2857:PRO:HD3	2.55	0.42
1:A:3756:LYS:O	1:A:3760:LYS:HB2	2.19	0.42
1:A:3970:GLN:HE21	1:A:5004:THR:CA	2.29	0.42
1:A:4888:TYR:OH	1:C:4898:GLY:O	2.38	0.42
1:C:402:ARG:NH1	1:C:405:HIS:CD2	2.86	0.42
1:C:1110:ARG:HB2	1:C:1113:VAL:HG23	2.00	0.42
1:C:1459:GLN:HE21	1:C:1459:GLN:HB2	1.56	0.42
1:C:1676:LEU:HG	1:C:1721:GLU:OE2	2.19	0.42
1:C:1819:VAL:HG22	1:C:1926:LEU:HD13	2.01	0.42
1:C:2855:TYR:CD2	1:C:2857:PRO:HD3	2.54	0.42
1:C:3732:SER:HB2	1:C:3766:GLN:HB3	2.02	0.42
1:C:4876:CYS:HB2	1:C:4877:ASP:H	1.54	0.42
1:C:4944:ARG:O	1:C:4947:GLN:HB2	2.20	0.42
1:C:4978:HIS:ND1	1:C:4982:GLU:OE1	2.53	0.42
1:E:864:PRO:HG2	1:E:867:LEU:HD12	2.01	0.42
1:E:1297:PHE:HB2	1:E:1545:ASN:HA	2.01	0.42
1:E:2460:LEU:HD21	1:G:131:LEU:HB2	2.01	0.42
1:E:2855:TYR:CD2	1:E:2857:PRO:HD3	2.55	0.42
1:E:4013:LEU:O	1:E:4017:LEU:HG	2.20	0.42
1:E:4826:ILE:HG12	1:G:4839:MET:HE1	2.00	0.42
1:E:4941:GLY:O	1:E:4945:ASP:HB2	2.19	0.42
1:G:276:TRP:CZ3	1:G:338:GLU:HB3	2.54	0.42
1:G:706:GLY:H	1:G:711:LEU:HD22	1.84	0.42
1:G:1087:ARG:HD2	1:G:1223:PHE:CE1	2.55	0.42
1:G:1723:ALA:O	1:G:1727:ARG:HB2	2.19	0.42
1:G:2338:ALA:O	1:G:2349:ASN:ND2	2.52	0.42
1:G:2458:ARG:O	1:G:2464:ASP:N	2.53	0.42
1:G:3806:ASN:OD1	1:G:3807:GLY:N	2.52	0.42
1:G:4048:LEU:HA	1:G:4051:SER:OG	2.20	0.42
1:G:4055:VAL:O	1:G:4059:LEU:HG	2.19	0.42
1:G:4582:VAL:HG12	1:G:4629:TYR:HD1	1.84	0.42
1:G:4639:MET:HG3	1:G:4640:GLU:N	2.34	0.42
1:G:4792:LEU:O	1:G:4795:TYR:HB3	2.19	0.42
1:A:317:ARG:N	1:A:347:PHE:O	2.52	0.42
1:A:828:GLU:HG3	1:A:840:VAL:HG21	2.01	0.42
1:A:910:PHE:CG	1:A:918:ARG:HB3	2.55	0.42
1:A:1091:GLU:HB2	1:A:1203:ASN:O	2.19	0.42
1:A:1762:LEU:HD21	1:A:1860:LYS:NZ	2.34	0.42
1:A:2430:ILE:HG23	1:A:2501:SER:HB2	2.01	0.42
1:A:4710:SER:OG	1:A:4772:ASP:OD2	2.36	0.42
1:A:4914:VAL:O	1:A:4918:ILE:HG13	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4921:PHE:HA	1:A:4925:ILE:CG1	2.49	0.42
1:C:178:ARG:HB2	1:C:193:ALA:HB1	2.01	0.42
1:C:647:ASN:N	1:C:822:ARG:O	2.52	0.42
1:C:660:GLY:HA2	1:C:750:LEU:HD22	2.01	0.42
1:C:758:ARG:HD3	1:C:761:GLY:HA2	2.02	0.42
1:C:1087:ARG:HD2	1:C:1223:PHE:CE1	2.54	0.42
1:C:1648:MET:SD	1:C:1656:ARG:NH2	2.92	0.42
1:C:2123:LEU:HD23	1:C:2123:LEU:HA	1.77	0.42
1:C:3651:ASN:HA	1:C:3654:LEU:HD12	2.02	0.42
1:C:4073:GLY:H	1:C:4128:PHE:HE2	1.68	0.42
1:C:4717:ASP:O	1:C:4719:PHE:N	2.48	0.42
1:E:145:ALA:HA	1:E:175:SER:HB3	2.02	0.42
1:E:175:SER:OG	1:E:176:SER:N	2.53	0.42
1:E:1099:GLU:H	1:E:1198:GLN:NE2	2.18	0.42
1:E:1110:ARG:HB2	1:E:1113:VAL:HG23	2.01	0.42
1:E:1768:THR:C	1:E:1769:THR:HG1	2.18	0.42
1:E:4208:PRO:HG2	1:E:4210:VAL:HG23	2.02	0.42
1:G:102:LEU:HD23	1:G:162:LYS:HA	2.01	0.42
1:G:222:LEU:HB3	1:G:388:LEU:HD22	2.00	0.42
1:G:771:PHE:HE1	1:G:1472:VAL:HG13	1.84	0.42
1:G:1848:LEU:HD12	1:G:1851:MET:SD	2.59	0.42
1:G:2431:ASP:HB2	1:G:2501:SER:HA	2.00	0.42
1:G:2821:TRP:CD1	1:G:2939:ARG:HA	2.55	0.42
1:G:4090:LYS:CB	1:G:4112:LEU:HD21	2.50	0.42
1:G:4949:GLN:NE2	1:G:4953:ASP:OD1	2.52	0.42
2:H:92:PRO:HA	2:H:93:PRO:HD3	1.89	0.42
1:A:175:SER:OG	1:A:176:SER:N	2.53	0.42
1:A:514:SER:O	1:A:518:ILE:HG13	2.19	0.42
1:A:537:CYS:HB3	1:A:571:SER:HB3	2.02	0.42
1:A:647:ASN:N	1:A:822:ARG:O	2.53	0.42
1:A:1689:VAL:HG22	1:A:1694:LEU:HD11	2.01	0.42
1:A:3651:ASN:HA	1:A:3654:LEU:HD12	2.02	0.42
1:A:4202:ARG:O	1:A:4206:GLU:HG2	2.19	0.42
1:A:4208:PRO:HG2	1:A:4210:VAL:HG23	2.01	0.42
1:A:4834:GLY:O	1:A:4837:LEU:HB3	2.20	0.42
1:A:5011:TRP:O	1:A:5015:GLN:HG2	2.20	0.42
1:C:116:MET:HE2	1:C:139:GLU:OE2	2.20	0.42
1:C:1237:TRP:CD1	1:C:1611:HIS:HA	2.55	0.42
1:C:1654:SER:HB2	1:C:1704:PRO:HB3	2.02	0.42
1:C:1762:LEU:HD21	1:C:1860:LYS:NZ	2.35	0.42
1:C:2094:LEU:O	1:C:2098:VAL:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2258:LEU:HA	1:C:2261:SER:OG	2.20	0.42
1:C:2822:THR:HG1	1:C:2938:THR:HG1	1.68	0.42
1:C:3838:THR:C	1:C:3839:CYS:SG	2.98	0.42
1:C:4238:CYS:O	1:C:4242:ILE:HG13	2.19	0.42
1:E:670:GLU:O	1:E:787:VAL:HG13	2.19	0.42
1:E:1654:SER:HB2	1:E:1704:PRO:HB3	2.02	0.42
1:E:1779:PRO:HA	1:E:1780:PRO:HD3	1.78	0.42
1:E:1819:VAL:HG22	1:E:1926:LEU:HD13	2.02	0.42
1:E:1834:VAL:HG13	1:E:1835:GLU:H	1.84	0.42
1:E:2437:ALA:HB1	1:E:2454:ARG:NE	2.35	0.42
1:E:4717:ASP:O	1:E:4719:PHE:N	2.48	0.42
1:E:4887:MET:HA	1:E:4891:VAL:CG2	2.49	0.42
1:G:78:LEU:HA	1:G:81:MET:HG2	2.02	0.42
1:G:119:SER:HB2	1:G:145:ALA:HB1	2.01	0.42
1:G:633:LEU:HD22	1:G:1663:HIS:HD2	1.84	0.42
1:G:1133:HIS:CE1	1:G:1134:LEU:HG	2.55	0.42
1:G:1648:MET:SD	1:G:1656:ARG:NH2	2.93	0.42
1:G:1748:PHE:HA	1:G:1749:PRO:HD2	1.75	0.42
1:G:1783:VAL:HG11	2:H:55:VAL:HG12	2.02	0.42
1:G:2110:TYR:O	1:G:2110:TYR:CD2	2.73	0.42
1:G:2199:ARG:NE	1:G:2249:SER:OG	2.51	0.42
1:G:2258:LEU:HA	1:G:2261:SER:OG	2.20	0.42
1:G:4088:ILE:O	1:G:4123:ILE:N	2.45	0.42
1:G:4990:PHE:O	1:G:4993:MET:HG2	2.19	0.42
1:A:69:LEU:HD13	1:A:101:LEU:HD11	2.00	0.42
1:A:145:ALA:HA	1:A:175:SER:HB3	2.02	0.42
1:A:1245:PHE:CE2	1:A:1646:ARG:NH1	2.88	0.42
1:A:1287:LEU:HD13	1:A:1556:PRO:HD3	2.02	0.42
1:A:1654:SER:HB2	1:A:1704:PRO:HB3	2.02	0.42
1:A:1666:THR:O	1:A:1669:LEU:HB3	2.19	0.42
1:A:1855:GLY:O	1:A:1858:ASP:HB2	2.19	0.42
1:A:2094:LEU:O	1:A:2098:VAL:HG23	2.19	0.42
1:A:4839:MET:HE2	1:G:4826:ILE:CG1	2.50	0.42
1:A:4887:MET:HA	1:A:4891:VAL:CG2	2.50	0.42
1:C:102:LEU:HD23	1:C:162:LYS:HA	2.02	0.42
1:C:317:ARG:HG3	1:C:356:TRP:CH2	2.54	0.42
1:C:572:PRO:O	1:C:575:LEU:HB2	2.19	0.42
1:C:1099:GLU:H	1:C:1198:GLN:NE2	2.18	0.42
1:C:1729:SER:HB2	1:C:2163:ARG:HH11	1.82	0.42
1:C:4036:VAL:HG12	1:C:4037:ASN:N	2.35	0.42
1:C:4943:LEU:O	1:C:4947:GLN:HG2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:454:PRO:HA	1:E:455:PRO:HD3	1.86	0.42
1:E:1078:GLU:HB2	1:E:1235:THR:OG1	2.18	0.42
1:E:1855:GLY:O	1:E:1858:ASP:HB2	2.19	0.42
1:E:1856:ASP:H	1:E:1857:GLU:CB	2.30	0.42
1:E:2258:LEU:HA	1:E:2261:SER:OG	2.20	0.42
1:E:2358:ILE:HG21	1:G:195:PHE:CE2	2.55	0.42
1:E:3811:GLU:HG2	1:E:3812:VAL:N	2.35	0.42
1:E:3838:THR:C	1:E:3839:CYS:SG	2.98	0.42
1:E:3933:PHE:O	1:E:3937:TYR:HD2	2.03	0.42
1:E:4636:THR:O	1:E:4639:MET:HE2	2.20	0.42
1:E:4943:LEU:O	1:E:4947:GLN:HG2	2.20	0.42
1:G:828:GLU:OE2	1:G:831:ARG:HA	2.20	0.42
1:G:975:VAL:HG21	1:G:1044:ARG:CB	2.47	0.42
1:G:1616:GLU:HG3	1:G:1617:THR:HG23	2.02	0.42
1:G:1864:LYS:NZ	1:G:1869:GLU:C	2.73	0.42
1:G:2745:VAL:HB	1:G:2814:LYS:HB3	2.00	0.42
1:G:3703:LEU:HD23	1:G:3703:LEU:O	2.19	0.42
1:A:246:TYR:CE2	1:A:373:LYS:HD3	2.54	0.42
1:A:1105:ALA:HB3	1:A:1191:VAL:HG21	2.00	0.42
1:A:1133:HIS:CE1	1:A:1134:LEU:HG	2.55	0.42
1:A:1648:MET:SD	1:A:1656:ARG:NH2	2.93	0.42
1:A:1808:ARG:HB2	1:A:1854:PHE:HE1	1.83	0.42
1:A:1945:TYR:O	1:A:1949:GLN:HG2	2.20	0.42
1:A:2424:SER:HA	1:A:2427:ALA:HB3	2.01	0.42
1:A:3881:THR:O	1:A:3885:PHE:HD2	2.03	0.42
1:A:3891:LEU:HB3	1:A:3899:PHE:CE2	2.53	0.42
1:A:4041:ALA:O	1:A:4044:MET:HB3	2.19	0.42
1:A:4823:LEU:HG	1:A:4826:ILE:HD12	2.01	0.42
1:A:4842:GLY:O	1:A:4846:VAL:HG23	2.20	0.42
1:C:828:GLU:HG3	1:C:840:VAL:HG21	2.01	0.42
1:C:927:GLU:O	1:C:930:LYS:HB2	2.20	0.42
1:C:1288:PHE:O	1:C:1603:VAL:HG13	2.20	0.42
1:C:2752:ASP:HA	1:C:2755:ILE:HD12	2.01	0.42
1:C:2876:GLU:OE2	1:C:2916:LYS:HD3	2.20	0.42
1:C:3891:LEU:HB3	1:C:3899:PHE:CE2	2.54	0.42
1:C:4041:ALA:O	1:C:4045:VAL:HG23	2.20	0.42
1:E:119:SER:HB2	1:E:145:ALA:HB1	2.01	0.42
1:E:1783:VAL:HG11	2:F:55:VAL:HG12	2.01	0.42
1:E:2463:LEU:N	1:E:2510:TYR:OH	2.50	0.42
1:E:2806:ARG:HB3	1:E:2810:LYS:HE3	2.02	0.42
1:E:4154:VAL:HA	1:E:4155:PRO:HD2	1.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:537:CYS:HB3	1:G:571:SER:HB3	2.02	0.42
1:G:612:VAL:HA	1:G:2167:ILE:HG23	2.02	0.42
1:G:1452:TRP:HB3	1:G:1550:PRO:HA	2.02	0.42
1:G:1748:PHE:HE1	1:G:2072:LEU:C	2.23	0.42
1:G:1857:GLU:O	1:G:1860:LYS:HB2	2.20	0.42
1:G:3774:GLY:HA2	1:G:3815:LYS:HZ1	1.85	0.42
1:G:3980:LEU:HA	1:G:3983:SER:CB	2.50	0.42
1:G:4675:LYS:O	1:G:4679:ARG:HG2	2.20	0.42
1:G:5006:GLN:O	1:G:5010:VAL:HG23	2.19	0.42
1:A:2359:ARG:CZ	1:C:179:TYR:OH	2.68	0.41
1:A:2449:GLU:O	1:A:2452:ARG:HB2	2.20	0.41
1:A:4041:ALA:O	1:A:4045:VAL:HG23	2.20	0.41
1:C:40:GLU:OE2	1:C:406:SER:HB2	2.20	0.41
1:C:246:TYR:CE2	1:C:373:LYS:HD3	2.55	0.41
1:C:346:CYS:O	1:C:388:LEU:HB2	2.19	0.41
1:C:582:HIS:O	1:C:585:SER:HB2	2.20	0.41
1:C:1245:PHE:CE2	1:C:1646:ARG:NH1	2.88	0.41
1:C:1294:PRO:CD	1:C:1584:ARG:HH11	2.19	0.41
1:C:1297:PHE:HB2	1:C:1545:ASN:HA	2.02	0.41
1:C:1457:TYR:O	1:C:1458:HIS:CG	2.73	0.41
1:C:2142:TYR:CD2	1:C:2197:LEU:HD12	2.55	0.41
1:C:2558:VAL:O	1:C:2561:LEU:HG	2.20	0.41
1:C:2887:GLY:O	1:C:2891:LYS:HG3	2.20	0.41
1:C:3881:THR:O	1:C:3885:PHE:HD2	2.03	0.41
1:C:4710:SER:OG	1:C:4772:ASP:OD2	2.36	0.41
1:C:4892:ARG:CZ	1:E:4896:GLY:CA	2.87	0.41
1:E:78:LEU:HA	1:E:81:MET:HG2	2.02	0.41
1:E:1119:GLU:C	1:E:1133:HIS:HE2	2.22	0.41
1:E:1452:TRP:HB3	1:E:1550:PRO:HA	2.02	0.41
1:E:2458:ARG:O	1:E:2464:ASP:N	2.53	0.41
1:E:4208:PRO:HB2	1:E:4209:GLN:H	1.61	0.41
1:E:5011:TRP:O	1:E:5015:GLN:HG2	2.20	0.41
1:G:445:LEU:HD23	1:G:521:LEU:HG	2.01	0.41
1:G:582:HIS:O	1:G:585:SER:HB2	2.20	0.41
1:G:758:ARG:HD3	1:G:761:GLY:HA2	2.01	0.41
1:G:910:PHE:CG	1:G:918:ARG:HB3	2.55	0.41
1:G:1457:TYR:O	1:G:1458:HIS:CG	2.73	0.41
1:G:1834:VAL:HG13	1:G:1835:GLU:H	1.85	0.41
1:G:2123:LEU:HD23	1:G:2126:ARG:HD2	2.02	0.41
1:G:2336:ARG:HH11	1:G:2431:ASP:HB3	1.84	0.41
1:G:3838:THR:OG1	1:G:3839:CYS:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4164:LEU:O	1:G:4168:GLU:N	2.53	0.41
2:H:38:SER:O	2:H:41:ASP:HB2	2.19	0.41
1:A:73:LEU:O	1:A:105:HIS:HB3	2.19	0.41
1:A:1294:PRO:O	1:A:1584:ARG:NE	2.52	0.41
1:A:1845:VAL:HG13	1:A:1854:PHE:HE2	1.84	0.41
1:A:2142:TYR:CD2	1:A:2197:LEU:HD12	2.55	0.41
1:A:2458:ARG:O	1:A:2464:ASP:N	2.52	0.41
1:A:3732:SER:HB2	1:A:3766:GLN:HB3	2.01	0.41
1:A:4034:ASN:HD21	1:A:4040:ILE:CG2	2.33	0.41
1:A:4036:VAL:HG12	1:A:4037:ASN:N	2.36	0.41
1:A:4055:VAL:O	1:A:4059:LEU:HG	2.20	0.41
1:A:4058:ILE:HG13	1:A:4059:LEU:N	2.35	0.41
1:C:165:VAL:HG13	1:C:204:PRO:HD3	2.01	0.41
1:C:317:ARG:N	1:C:347:PHE:O	2.52	0.41
1:C:537:CYS:HB3	1:C:571:SER:HB3	2.02	0.41
1:C:670:GLU:O	1:C:787:VAL:HG13	2.19	0.41
1:C:768:PHE:HB3	1:C:771:PHE:CE2	2.56	0.41
1:C:864:PRO:HG2	1:C:867:LEU:HD12	2.02	0.41
1:C:1119:GLU:C	1:C:1133:HIS:HE2	2.21	0.41
1:C:1514:LEU:N	1:C:1514:LEU:CD1	2.84	0.41
1:C:4010:ILE:HA	1:C:4013:LEU:HB3	2.01	0.41
1:C:4047:MET:HG3	1:C:4048:LEU:N	2.36	0.41
1:C:4055:VAL:O	1:C:4059:LEU:HG	2.20	0.41
1:C:4636:THR:O	1:C:4639:MET:HE2	2.20	0.41
1:C:4866:SER:O	1:C:4868:ASP:N	2.53	0.41
1:C:5011:TRP:O	1:C:5015:GLN:HG2	2.20	0.41
1:E:927:GLU:O	1:E:930:LYS:HB2	2.19	0.41
1:E:1245:PHE:CE2	1:E:1646:ARG:NH1	2.88	0.41
1:E:2868:SER:O	1:E:2872:GLN:N	2.48	0.41
1:E:3651:ASN:HA	1:E:3654:LEU:HD12	2.02	0.41
1:E:3718:GLU:HG3	1:E:3719:ASP:N	2.35	0.41
1:E:4059:LEU:HA	1:E:4062:PHE:HD2	1.84	0.41
1:E:4062:PHE:O	1:E:4170:ILE:HG21	2.20	0.41
1:E:4183:ILE:HD13	1:E:4193:ILE:HD13	2.03	0.41
1:E:4691:GLN:HA	1:E:4692:PRO:HD2	1.86	0.41
1:G:246:TYR:CE2	1:G:373:LYS:HD3	2.55	0.41
1:G:1105:ALA:HB3	1:G:1191:VAL:HG21	2.00	0.41
1:G:1603:VAL:HG12	1:G:1604:SER:O	2.20	0.41
1:G:2142:TYR:CD2	1:G:2197:LEU:HD12	2.55	0.41
1:G:2430:ILE:HG23	1:G:2501:SER:HB2	2.01	0.41
1:G:2887:GLY:O	1:G:2891:LYS:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3839:CYS:HB2	1:G:3881:THR:HG22	2.02	0.41
1:G:3969:ILE:HG12	1:G:3980:LEU:HD11	2.03	0.41
1:G:4720:VAL:HG12	1:G:4724:VAL:HG23	2.00	0.41
1:A:758:ARG:HH12	1:A:763:PRO:HD3	1.83	0.41
1:A:828:GLU:OE2	1:A:831:ARG:HA	2.20	0.41
1:A:1856:ASP:N	1:A:1858:ASP:H	2.18	0.41
1:A:1864:LYS:NZ	1:A:1869:GLU:C	2.73	0.41
1:A:2299:VAL:O	1:A:2360:LYS:HE2	2.21	0.41
1:A:2868:SER:O	1:A:2872:GLN:N	2.48	0.41
1:A:3811:GLU:HG2	1:A:3812:VAL:N	2.34	0.41
1:A:3838:THR:C	1:A:3839:CYS:SG	2.99	0.41
1:A:4047:MET:HG3	1:A:4048:LEU:N	2.35	0.41
1:A:4943:LEU:O	1:A:4947:GLN:HG2	2.20	0.41
1:A:4978:HIS:ND1	1:A:4982:GLU:OE1	2.53	0.41
1:C:607:CYS:HB2	1:C:1672:ALA:HB1	2.02	0.41
1:C:828:GLU:OE2	1:C:831:ARG:HA	2.20	0.41
1:C:1246:GLU:HA	1:C:1247:PRO:HD3	1.90	0.41
1:C:1647:CYS:O	1:C:1648:MET:HG3	2.20	0.41
1:C:1691:GLN:O	1:C:1695:LEU:HG	2.19	0.41
1:C:4566:ALA:HA	1:C:4569:LEU:HD12	2.03	0.41
1:E:582:HIS:O	1:E:585:SER:HB2	2.20	0.41
1:E:1667:LEU:HD23	1:E:1710:GLY:C	2.41	0.41
1:E:1676:LEU:HG	1:E:1721:GLU:OE2	2.20	0.41
1:E:2500:ALA:HA	1:E:2556:LEU:HD21	2.01	0.41
1:E:2515:GLN:O	1:E:2518:LEU:HB3	2.20	0.41
1:E:2745:VAL:CG2	1:E:2818:ALA:HB2	2.50	0.41
1:E:4834:GLY:O	1:E:4837:LEU:HB3	2.20	0.41
1:E:4863:TYR:HD2	1:E:4876:CYS:SG	2.44	0.41
1:E:4866:SER:O	1:E:4868:ASP:N	2.54	0.41
1:E:5011:TRP:O	1:E:5014:TYR:HB3	2.20	0.41
1:G:165:VAL:HG13	1:G:204:PRO:HD3	2.02	0.41
1:G:696:PRO:HD2	1:G:829:TYR:CE2	2.52	0.41
1:G:702:TRP:HZ2	1:G:1640:HIS:HD1	1.67	0.41
1:G:1704:PRO:HG2	1:G:1707:LEU:HD12	2.02	0.41
1:G:3556:ASN:O	1:G:3560:GLN:N	2.54	0.41
1:G:4161:ARG:HA	1:G:4164:LEU:HB3	2.03	0.41
1:G:4710:SER:OG	1:G:4772:ASP:OD2	2.33	0.41
1:A:445:LEU:CD2	1:A:522:LEU:HD12	2.44	0.41
1:A:684:VAL:HG22	1:A:781:VAL:HG13	2.02	0.41
1:A:2558:VAL:O	1:A:2561:LEU:HG	2.20	0.41
1:A:4880:MET:CA	1:G:4578:LEU:CD1	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:669:ASP:CB	1:C:788:LYS:NZ	2.83	0.41
1:C:4058:ILE:HG13	1:C:4059:LEU:N	2.35	0.41
1:C:4218:ILE:HG22	1:C:4950:VAL:HG13	2.02	0.41
1:C:4823:LEU:HG	1:C:4826:ILE:HD12	2.02	0.41
1:E:858:THR:HG21	1:E:992:GLY:HA2	2.02	0.41
1:E:870:ILE:HA	1:E:873:LYS:HB3	2.02	0.41
1:E:1585:LYS:HD3	1:E:1596:GLU:OE2	2.21	0.41
1:E:1748:PHE:HE1	1:E:2072:LEU:C	2.23	0.41
1:E:3881:THR:O	1:E:3885:PHE:HD2	2.03	0.41
1:E:4036:VAL:HG12	1:E:4037:ASN:N	2.36	0.41
1:E:4174:PHE:HA	1:E:4177:TYR:CD2	2.56	0.41
1:E:4217:PHE:CZ	1:E:4234:PHE:HA	2.56	0.41
1:E:4218:ILE:HG22	1:E:4950:VAL:HG13	2.01	0.41
1:E:4251:ILE:HG22	1:E:4557:ARG:HH11	1.85	0.41
1:E:4944:ARG:O	1:E:4947:GLN:HB2	2.20	0.41
1:G:78:LEU:O	1:G:81:MET:HG2	2.21	0.41
1:G:216:GLY:HA3	1:G:264:PRO:CD	2.49	0.41
1:G:647:ASN:N	1:G:822:ARG:O	2.52	0.41
1:G:768:PHE:HB3	1:G:771:PHE:CE2	2.56	0.41
1:G:856:VAL:O	1:G:991:ASN:ND2	2.50	0.41
1:G:879:HIS:NE2	1:G:906:CYS:O	2.53	0.41
1:G:1585:LYS:HD3	1:G:1596:GLU:OE2	2.20	0.41
1:G:1845:VAL:HG13	1:G:1854:PHE:HE2	1.85	0.41
1:G:2862:LEU:HD11	1:G:2929:PHE:HD1	1.85	0.41
1:G:4006:ASP:HB2	1:G:4009:GLN:HG2	2.02	0.41
1:G:4866:SER:O	1:G:4868:ASP:N	2.53	0.41
1:A:12:GLN:O	1:A:165:VAL:HG23	2.21	0.41
1:A:102:LEU:HD23	1:A:162:LYS:HA	2.03	0.41
1:A:340:LYS:HG3	1:A:342:GLY:N	2.35	0.41
1:A:515:TRP:HA	1:A:518:ILE:HD12	2.02	0.41
1:A:633:LEU:HD22	1:A:1663:HIS:HD2	1.84	0.41
1:A:975:VAL:HG21	1:A:1044:ARG:CB	2.47	0.41
1:A:1719:HIS:CG	1:A:1802:ILE:HG23	2.56	0.41
1:A:1819:VAL:HG22	1:A:1926:LEU:HD13	2.02	0.41
1:A:1848:LEU:HD12	1:A:1851:MET:SD	2.60	0.41
2:B:16:PRO:HG3	2:B:106:LEU:HD21	2.03	0.41
1:C:78:LEU:HA	1:C:81:MET:HG2	2.02	0.41
1:C:642:THR:OG1	1:C:1617:THR:HG21	2.20	0.41
1:C:879:HIS:NE2	1:C:906:CYS:O	2.53	0.41
1:C:1834:VAL:HG13	1:C:1835:GLU:H	1.84	0.41
1:C:2349:ASN:O	1:C:2353:VAL:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4041:ALA:O	1:C:4044:MET:HB3	2.19	0.41
1:C:4217:PHE:CZ	1:C:4234:PHE:HA	2.56	0.41
1:C:4863:TYR:HD2	1:C:4876:CYS:SG	2.44	0.41
1:E:669:ASP:CB	1:E:788:LYS:NZ	2.83	0.41
1:E:768:PHE:HB3	1:E:771:PHE:CE2	2.56	0.41
1:E:945:LYS:HA	1:E:1049:TYR:HA	2.03	0.41
1:E:1237:TRP:CD1	1:E:1611:HIS:HA	2.56	0.41
1:E:1287:LEU:HD13	1:E:1556:PRO:HD3	2.01	0.41
1:E:1729:SER:HB2	1:E:2163:ARG:HH11	1.82	0.41
1:E:1762:LEU:HD21	1:E:1860:LYS:NZ	2.34	0.41
1:E:2094:LEU:O	1:E:2098:VAL:HG23	2.21	0.41
1:E:2430:ILE:HG23	1:E:2501:SER:HB2	2.01	0.41
1:E:2887:GLY:O	1:E:2891:LYS:HG3	2.20	0.41
1:E:5004:THR:O	1:E:5007:GLU:HG2	2.21	0.41
1:G:40:GLU:OE2	1:G:406:SER:HB2	2.20	0.41
1:G:1072:VAL:HG22	1:G:1196:PRO:HD3	2.03	0.41
1:G:1099:GLU:H	1:G:1198:GLN:NE2	2.18	0.41
1:G:1245:PHE:CE2	1:G:1646:ARG:NH1	2.88	0.41
1:G:1691:GLN:O	1:G:1695:LEU:HG	2.19	0.41
1:G:2299:VAL:O	1:G:2360:LYS:HE2	2.20	0.41
1:G:3977:GLN:NE2	1:G:4030:LEU:O	2.54	0.41
2:H:4:VAL:HG21	2:H:62:GLY:HA3	2.01	0.41
1:A:607:CYS:HB2	1:A:1672:ALA:HB1	2.01	0.41
1:A:768:PHE:HB3	1:A:771:PHE:CE2	2.56	0.41
1:A:1723:ALA:O	1:A:1727:ARG:HB2	2.20	0.41
1:A:3922:TYR:HA	1:A:3925:ARG:HG2	2.02	0.41
1:A:3933:PHE:O	1:A:3937:TYR:HD2	2.03	0.41
1:A:4653:VAL:O	1:A:4657:CYS:N	2.46	0.41
1:A:4866:SER:O	1:A:4868:ASP:N	2.54	0.41
1:C:69:LEU:HD13	1:C:101:LEU:HD11	2.01	0.41
1:C:340:LYS:HG3	1:C:342:GLY:N	2.36	0.41
1:C:514:SER:O	1:C:518:ILE:HG13	2.20	0.41
1:C:515:TRP:HA	1:C:518:ILE:HD12	2.02	0.41
1:C:580:GLU:HB3	1:C:620:LEU:HD11	2.03	0.41
1:C:1616:GLU:HG3	1:C:1617:THR:HG23	2.02	0.41
1:C:1689:VAL:HG22	1:C:1694:LEU:HD11	2.01	0.41
1:C:3886:ARG:O	1:C:3890:LEU:HD13	2.21	0.41
1:C:3927:GLN:HE21	1:C:3991:GLY:HA3	1.86	0.41
1:C:4137:ARG:HD2	1:C:4177:TYR:CE2	2.56	0.41
1:C:4582:VAL:HG12	1:C:4629:TYR:HD1	1.85	0.41
1:C:4735:GLU:O	1:C:4739:GLU:N	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:40:GLU:OE2	1:E:406:SER:HB2	2.20	0.41
1:E:111:HIS:CD2	1:E:113:HIS:HB3	2.56	0.41
1:E:642:THR:OG1	1:E:1617:THR:HG21	2.20	0.41
1:E:758:ARG:HD3	1:E:761:GLY:HA2	2.03	0.41
1:E:826:ILE:O	1:E:828:GLU:N	2.54	0.41
1:E:828:GLU:HG3	1:E:840:VAL:HG21	2.02	0.41
1:E:1457:TYR:O	1:E:1458:HIS:CG	2.73	0.41
1:E:1857:GLU:O	1:E:1860:LYS:HB2	2.20	0.41
1:E:1945:TYR:O	1:E:1949:GLN:HG2	2.21	0.41
1:E:2349:ASN:O	1:E:2353:VAL:HG23	2.21	0.41
1:E:2876:GLU:OE2	1:E:2916:LYS:HD3	2.20	0.41
1:E:4578:LEU:HG	1:E:4578:LEU:O	2.20	0.41
1:E:4580:TYR:HB2	1:E:4631:PHE:CD1	2.56	0.41
1:G:485:SER:O	1:G:488:LEU:HB3	2.21	0.41
1:G:1237:TRP:CD1	1:G:1611:HIS:HA	2.56	0.41
1:G:1856:ASP:H	1:G:1857:GLU:CB	2.31	0.41
1:G:1959:ALA:O	1:G:1962:ALA:HB3	2.20	0.41
1:G:4157:ASP:O	1:G:4161:ARG:NE	2.53	0.41
1:G:4820:VAL:HG12	1:G:4821:LYS:H	1.85	0.41
1:A:40:GLU:OE2	1:A:406:SER:HB2	2.20	0.41
1:A:120:CYS:HA	1:A:135:VAL:HA	2.03	0.41
1:A:879:HIS:NE2	1:A:906:CYS:O	2.53	0.41
1:A:1288:PHE:O	1:A:1603:VAL:HG13	2.21	0.41
1:A:1293:LEU:HB3	1:A:1584:ARG:HE	1.86	0.41
1:A:1297:PHE:HB2	1:A:1545:ASN:HA	2.03	0.41
1:A:1857:GLU:O	1:A:1860:LYS:HB2	2.20	0.41
1:A:2349:ASN:O	1:A:2353:VAL:HG23	2.21	0.41
1:A:4137:ARG:HD2	1:A:4177:TYR:CE2	2.56	0.41
1:A:4183:ILE:HD13	1:A:4193:ILE:HD13	2.03	0.41
1:A:4581:LYS:HE2	1:C:4877:ASP:O	2.21	0.41
1:A:4931:ILE:O	1:A:4935:LEU:HB2	2.19	0.41
1:C:485:SER:O	1:C:488:LEU:HB3	2.21	0.41
1:C:1293:LEU:HB3	1:C:1584:ARG:HE	1.86	0.41
1:C:1676:LEU:O	1:C:1676:LEU:HD23	2.21	0.41
1:C:1748:PHE:HE1	1:C:2072:LEU:C	2.24	0.41
1:C:1848:LEU:HD12	1:C:1851:MET:SD	2.60	0.41
1:C:2284:ASN:HA	1:C:2287:ALA:HB3	2.02	0.41
1:C:2806:ARG:HB3	1:C:2810:LYS:HE3	2.02	0.41
1:C:4034:ASN:HD21	1:C:4040:ILE:CG2	2.32	0.41
1:C:4174:PHE:HA	1:C:4177:TYR:CD2	2.56	0.41
1:C:4813:LEU:HD12	1:C:4814:LEU:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4875:LYS:O	1:C:4877:ASP:N	2.54	0.41
1:C:5011:TRP:O	1:C:5014:TYR:HB3	2.20	0.41
2:D:92:PRO:HA	2:D:93:PRO:HD3	1.91	0.41
1:E:165:VAL:HG13	1:E:204:PRO:HD3	2.02	0.41
1:E:537:CYS:HB3	1:E:571:SER:HB3	2.03	0.41
1:E:580:GLU:HB3	1:E:620:LEU:HD11	2.03	0.41
1:E:590:LEU:HD13	1:E:599:VAL:HB	2.03	0.41
1:E:910:PHE:CG	1:E:918:ARG:HB3	2.55	0.41
1:E:1616:GLU:HG3	1:E:1617:THR:HG23	2.02	0.41
1:E:1864:LYS:NZ	1:E:1869:GLU:C	2.73	0.41
1:E:1944:GLU:HA	1:E:1947:CYS:SG	2.61	0.41
1:E:2114:PRO:O	1:E:3704:HIS:NE2	2.40	0.41
1:E:2142:TYR:CD2	1:E:2197:LEU:HD12	2.55	0.41
1:E:2284:ASN:HA	1:E:2287:ALA:HB3	2.02	0.41
1:E:3732:SER:HB2	1:E:3766:GLN:HB3	2.03	0.41
1:E:4666:VAL:HA	1:E:4669:VAL:HG12	2.03	0.41
2:F:16:PRO:HG3	2:F:106:LEU:HD21	2.02	0.41
1:G:39:ALA:HB3	1:G:137:LEU:HD11	2.03	0.41
1:G:515:TRP:HA	1:G:518:ILE:HD12	2.02	0.41
1:G:843:SER:HA	1:G:1197:GLY:HA2	2.03	0.41
1:G:1077:ALA:HB3	1:G:1189:LEU:HB3	2.03	0.41
1:G:1819:VAL:HG22	1:G:1926:LEU:HD13	2.02	0.41
1:G:1937:LEU:HD11	1:G:2115:GLU:OE1	2.21	0.41
1:G:2293:GLN:O	1:G:2296:GLU:HG2	2.21	0.41
1:G:3659:ALA:O	1:G:3663:LEU:HG	2.20	0.41
1:G:3718:GLU:HG3	1:G:3719:ASP:N	2.36	0.41
1:G:3722:TYR:HE2	1:G:3797:THR:HG22	1.86	0.41
1:G:3838:THR:C	1:G:3839:CYS:SG	2.99	0.41
1:G:4234:PHE:CZ	1:G:4988:TYR:HB2	2.55	0.41
1:A:356:TRP:O	1:A:378:LEU:HA	2.21	0.41
1:A:758:ARG:HD3	1:A:761:GLY:HA2	2.02	0.41
1:A:856:VAL:O	1:A:991:ASN:ND2	2.48	0.41
1:A:1094:ALA:HB1	1:A:1143:TRP:CZ3	2.56	0.41
1:A:1230:MET:HB2	1:A:1828:ASP:OD1	2.20	0.41
1:A:1275:ARG:HG2	1:A:1564:PHE:CD2	2.56	0.41
1:A:1585:LYS:HD3	1:A:1596:GLU:OE2	2.20	0.41
1:A:2284:ASN:HA	1:A:2287:ALA:HB3	2.02	0.41
1:A:2335:LEU:HB2	1:A:2432:LEU:HD11	2.03	0.41
1:A:3984:ARG:O	1:A:3984:ARG:HG2	2.21	0.41
1:A:4062:PHE:O	1:A:4170:ILE:HG21	2.20	0.41
1:A:4118:ASP:O	1:A:4120:ASN:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:145:ALA:HA	1:C:175:SER:HB3	2.01	0.41
1:C:1077:ALA:HB3	1:C:1189:LEU:HB3	2.03	0.41
1:C:2299:VAL:O	1:C:2360:LYS:HE2	2.20	0.41
1:C:2745:VAL:CG2	1:C:2818:ALA:HB2	2.50	0.41
1:C:2754:PHE:CZ	1:C:2930:LEU:HD23	2.56	0.41
1:C:3888:LEU:HA	1:C:3888:LEU:HD23	1.84	0.41
1:C:4666:VAL:HA	1:C:4669:VAL:HG12	2.03	0.41
1:E:67:PHE:HA	1:E:110:ARG:O	2.21	0.41
1:E:69:LEU:HD13	1:E:101:LEU:HD11	2.01	0.41
1:E:246:TYR:CE2	1:E:373:LYS:HD3	2.55	0.41
1:E:684:VAL:HG22	1:E:781:VAL:HG13	2.02	0.41
1:E:2773:ASN:HB3	1:E:2775:TRP:CD1	2.56	0.41
1:E:2822:THR:HG1	1:E:2938:THR:HG1	1.62	0.41
1:E:4238:CYS:O	1:E:4242:ILE:HG13	2.20	0.41
1:E:4914:VAL:O	1:E:4918:ILE:HG13	2.21	0.41
1:G:116:MET:HE2	1:G:139:GLU:OE2	2.21	0.41
1:G:1287:LEU:HD13	1:G:1556:PRO:HD3	2.02	0.41
1:G:1654:SER:HB2	1:G:1704:PRO:HB3	2.02	0.41
1:G:1965:TYR:CE1	1:G:2063:LEU:HD11	2.56	0.41
1:G:2349:ASN:O	1:G:2353:VAL:HG23	2.20	0.41
1:G:2761:TYR:CZ	1:G:2862:LEU:HD13	2.55	0.41
1:G:3976:ASN:O	1:G:3979:SER:HB3	2.20	0.41
1:G:4796:MET:HG3	1:G:4797:VAL:N	2.35	0.41
1:A:78:LEU:HD12	1:A:81:MET:SD	2.61	0.41
1:A:78:LEU:O	1:A:81:MET:HG2	2.21	0.41
1:A:121:LEU:HD12	1:A:136:GLY:HA3	2.03	0.41
1:A:178:ARG:CZ	1:G:2456:ILE:HD11	2.51	0.41
1:A:485:SER:O	1:A:488:LEU:HB3	2.21	0.41
1:A:572:PRO:O	1:A:575:LEU:HB2	2.19	0.41
1:A:582:HIS:O	1:A:585:SER:HB2	2.20	0.41
1:A:642:THR:OG1	1:A:1617:THR:HG21	2.20	0.41
1:A:670:GLU:O	1:A:787:VAL:HG13	2.20	0.41
1:A:1077:ALA:HB3	1:A:1189:LEU:HB3	2.03	0.41
1:A:1110:ARG:HB2	1:A:1113:VAL:HG23	2.02	0.41
1:A:1237:TRP:CD1	1:A:1611:HIS:HA	2.56	0.41
1:A:1457:TYR:O	1:A:1458:HIS:CG	2.74	0.41
1:A:1586:ASN:O	1:A:1588:ALA:N	2.49	0.41
1:A:1667:LEU:HD23	1:A:1710:GLY:C	2.42	0.41
1:A:1679:ASN:HB3	1:A:1799:SER:H	1.86	0.41
1:A:2114:PRO:O	1:A:3704:HIS:NE2	2.40	0.41
1:A:2204:HIS:ND1	1:A:2250:MET:SD	2.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2456:ILE:HD11	1:C:178:ARG:CZ	2.51	0.41
1:A:2554:LEU:HD11	1:A:2595:LEU:HA	2.03	0.41
1:A:2887:GLY:O	1:A:2891:LYS:HG3	2.20	0.41
1:A:4580:TYR:HB2	1:A:4631:PHE:CD1	2.53	0.41
1:A:4863:TYR:HD2	1:A:4876:CYS:SG	2.44	0.41
1:A:4876:CYS:HA	1:A:4882:CYS:HB3	2.03	0.41
1:A:4944:ARG:O	1:A:4947:GLN:HB2	2.20	0.41
1:C:454:PRO:HA	1:C:455:PRO:HD3	1.86	0.41
1:C:684:VAL:HG22	1:C:781:VAL:HG13	2.03	0.41
1:C:856:VAL:O	1:C:991:ASN:ND2	2.50	0.41
1:C:1024:TYR:CD1	1:C:1032:LYS:HG2	2.56	0.41
1:C:1072:VAL:HG22	1:C:1196:PRO:HD3	2.03	0.41
1:C:1230:MET:HB2	1:C:1828:ASP:OD1	2.21	0.41
1:C:1275:ARG:HG2	1:C:1564:PHE:CD2	2.56	0.41
1:C:1667:LEU:HD23	1:C:1710:GLY:C	2.41	0.41
1:C:1945:TYR:O	1:C:1949:GLN:HG2	2.21	0.41
1:C:2359:ARG:CZ	1:E:179:TYR:OH	2.68	0.41
1:C:2420:HIS:ND1	1:C:2423:MET:SD	2.76	0.41
1:C:2430:ILE:HG23	1:C:2501:SER:HB2	2.01	0.41
1:C:3984:ARG:O	1:C:3984:ARG:HG2	2.21	0.41
1:C:4062:PHE:O	1:C:4170:ILE:HG21	2.20	0.41
1:C:4887:MET:HA	1:C:4891:VAL:CG2	2.51	0.41
1:C:4914:VAL:O	1:C:4918:ILE:HG13	2.21	0.41
1:C:4991:PHE:CE2	1:C:4995:LEU:HD11	2.56	0.41
1:C:5004:THR:O	1:C:5007:GLU:HG2	2.20	0.41
1:E:121:LEU:HD12	1:E:136:GLY:HA3	2.02	0.41
1:E:635:THR:OG1	1:E:1638:ALA:O	2.31	0.41
1:E:671:VAL:HG12	1:E:673:PRO:HG3	2.03	0.41
1:E:1077:ALA:HB3	1:E:1189:LEU:HB3	2.03	0.41
1:E:1275:ARG:HG2	1:E:1564:PHE:CD2	2.56	0.41
1:E:1288:PHE:O	1:E:1603:VAL:HG13	2.21	0.41
1:E:1676:LEU:HD23	1:E:1676:LEU:O	2.21	0.41
1:E:1719:HIS:CG	1:E:1802:ILE:HG23	2.55	0.41
1:E:1829:PRO:HB3	1:E:1834:VAL:H	1.86	0.41
1:E:2754:PHE:CZ	1:E:2930:LEU:HD23	2.56	0.41
1:E:3888:LEU:HA	1:E:3888:LEU:HD23	1.84	0.41
1:E:3981:ALA:HA	1:E:3986:TRP:HH2	1.86	0.41
1:E:4047:MET:HG3	1:E:4048:LEU:N	2.35	0.41
1:E:4566:ALA:HA	1:E:4569:LEU:HD12	2.03	0.41
1:E:4570:ALA:HB2	1:E:4650:HIS:CE1	2.56	0.41
1:E:4875:LYS:O	1:E:4877:ASP:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4977:THR:HA	1:E:4981:GLU:OE1	2.21	0.41
1:E:5022:PHE:HD1	1:E:5022:PHE:HA	1.75	0.41
2:F:42:ARG:C	2:F:44:LYS:H	2.24	0.41
1:G:607:CYS:HB2	1:G:1672:ALA:HB1	2.02	0.41
1:G:635:THR:OG1	1:G:1638:ALA:O	2.32	0.41
1:G:750:LEU:O	1:G:751:SER:OG	2.33	0.41
1:G:826:ILE:O	1:G:828:GLU:N	2.54	0.41
1:G:1094:ALA:HB1	1:G:1143:TRP:CZ3	2.56	0.41
1:G:2101:MET:SD	1:G:2104:ARG:HD2	2.61	0.41
1:G:2515:GLN:O	1:G:2518:LEU:HB3	2.20	0.41
1:G:2745:VAL:CG2	1:G:2818:ALA:HB2	2.51	0.41
1:G:3957:VAL:O	1:G:3961:VAL:HG23	2.20	0.41
1:G:4063:ASP:HA	1:G:4170:ILE:HG12	2.03	0.41
1:G:4722:ARG:O	1:G:4725:LEU:HG	2.21	0.41
1:G:4727:LYS:HZ1	1:G:4728:HIS:CE1	2.38	0.41
1:G:4968:PHE:HB2	1:G:4975:PHE:HD1	1.86	0.41
2:H:44:LYS:HA	2:H:45:PRO:HD3	1.90	0.41
1:A:580:GLU:HB3	1:A:620:LEU:HD11	2.03	0.41
1:A:1087:ARG:HD2	1:A:1223:PHE:CE1	2.55	0.41
1:A:1099:GLU:H	1:A:1198:GLN:NE2	2.19	0.41
1:C:426:ARG:NH2	1:C:508:GLY:O	2.54	0.41
1:C:870:ILE:HA	1:C:873:LYS:HB3	2.03	0.41
1:C:1094:ALA:HB1	1:C:1143:TRP:CZ3	2.56	0.41
1:C:1452:TRP:HB3	1:C:1550:PRO:HA	2.03	0.41
1:C:1937:LEU:O	1:C:1940:CYS:SG	2.69	0.41
1:C:1944:GLU:HA	1:C:1947:CYS:SG	2.61	0.41
1:C:2204:HIS:ND1	1:C:2250:MET:SD	2.94	0.41
1:C:2456:ILE:HD11	1:E:178:ARG:HH22	1.87	0.41
1:C:3901:ASN:O	1:C:3905:THR:HG22	2.21	0.41
1:C:4108:ILE:O	1:C:4111:LEU:HB3	2.21	0.41
1:C:4118:ASP:O	1:C:4120:ASN:N	2.54	0.41
1:E:485:SER:O	1:E:488:LEU:HB3	2.21	0.41
1:E:636:ASN:HD21	2:F:35:LYS:HD3	1.85	0.41
1:E:1094:ALA:HB1	1:E:1143:TRP:CZ3	2.56	0.41
1:E:1293:LEU:HB3	1:E:1584:ARG:HE	1.87	0.41
1:E:1959:ALA:O	1:E:1962:ALA:HB3	2.22	0.41
1:E:1966:VAL:O	1:E:1966:VAL:HG12	2.21	0.41
1:E:3712:GLU:O	1:E:3713:LYS:HD2	2.21	0.41
1:E:4137:ARG:HD2	1:E:4177:TYR:CE2	2.56	0.41
1:E:4802:GLY:HA2	1:E:4809:PHE:HB2	2.02	0.41
1:E:4892:ARG:NH1	1:G:4896:GLY:HA3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4978:HIS:ND1	1:E:4982:GLU:OE1	2.53	0.41
1:G:175:SER:OG	1:G:176:SER:N	2.53	0.41
1:G:1275:ARG:HG2	1:G:1564:PHE:CD2	2.56	0.41
1:G:1779:PRO:HA	1:G:1780:PRO:HD3	1.79	0.41
1:G:2251:PHE:HA	1:G:2254:LEU:HG	2.03	0.41
1:G:2550:LEU:O	1:G:2554:LEU:N	2.54	0.41
1:G:2773:ASN:HB3	1:G:2775:TRP:CD1	2.56	0.41
1:G:3662:ILE:HG22	1:G:3662:ILE:O	2.21	0.41
1:G:3838:THR:O	1:G:3839:CYS:SG	2.76	0.41
1:G:4569:LEU:O	1:G:4573:ILE:HG13	2.20	0.41
1:G:4662:ASN:O	1:G:4667:PRO:HD3	2.20	0.41
2:H:31:GLU:HG2	2:H:96:THR:HB	2.02	0.41
1:A:272:SER:HB2	1:A:335:GLY:HA3	2.03	0.40
1:A:1748:PHE:HE1	1:A:2072:LEU:C	2.24	0.40
1:A:2550:LEU:O	1:A:2554:LEU:N	2.54	0.40
1:A:2754:PHE:CZ	1:A:2930:LEU:HD23	2.56	0.40
1:A:4174:PHE:HA	1:A:4177:TYR:CD2	2.56	0.40
1:C:111:HIS:CD2	1:C:113:HIS:HB3	2.56	0.40
1:C:1679:ASN:HB3	1:C:1799:SER:H	1.86	0.40
1:C:2550:LEU:O	1:C:2554:LEU:N	2.54	0.40
1:C:3933:PHE:O	1:C:3937:TYR:HD2	2.03	0.40
1:E:1603:VAL:HG12	1:E:1604:SER:O	2.20	0.40
1:E:2204:HIS:ND1	1:E:2250:MET:SD	2.94	0.40
1:E:2251:PHE:HA	1:E:2254:LEU:HG	2.03	0.40
1:E:4118:ASP:O	1:E:4120:ASN:N	2.54	0.40
1:E:4823:LEU:HG	1:E:4826:ILE:HD12	2.02	0.40
1:E:4932:ILE:O	1:E:4935:LEU:HB3	2.20	0.40
2:F:28:GLY:HA2	2:F:99:PHE:CD1	2.57	0.40
1:G:67:PHE:HA	1:G:110:ARG:O	2.21	0.40
1:G:78:LEU:HD12	1:G:81:MET:SD	2.61	0.40
1:G:111:HIS:CD2	1:G:113:HIS:HB3	2.56	0.40
1:G:2281:ILE:HD11	1:G:2337:PHE:HB3	2.02	0.40
1:G:3839:CYS:SG	1:G:3840:SER:N	2.94	0.40
1:G:3981:ALA:HA	1:G:3986:TRP:HH2	1.86	0.40
1:G:4691:GLN:HA	1:G:4692:PRO:HD2	1.88	0.40
1:G:4847:VAL:HG11	1:G:4924:VAL:HG22	2.02	0.40
1:G:4978:HIS:ND1	1:G:4982:GLU:OE1	2.54	0.40
1:A:165:VAL:HG13	1:A:204:PRO:HD3	2.03	0.40
1:A:826:ILE:O	1:A:828:GLU:N	2.54	0.40
1:A:843:SER:HA	1:A:1197:GLY:HA2	2.03	0.40
1:A:1046:LEU:HA	1:A:1049:TYR:HB2	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1603:VAL:HG12	1:A:1604:SER:O	2.22	0.40
1:A:1676:LEU:O	1:A:1676:LEU:HD23	2.21	0.40
1:A:1685:LEU:HA	1:A:1685:LEU:HD23	1.76	0.40
1:A:1829:PRO:HB3	1:A:1834:VAL:H	1.86	0.40
1:A:1944:GLU:HA	1:A:1947:CYS:SG	2.61	0.40
1:A:2199:ARG:NE	1:A:2249:SER:OG	2.52	0.40
1:A:2251:PHE:HA	1:A:2254:LEU:HG	2.03	0.40
1:A:3712:GLU:O	1:A:3713:LYS:HD2	2.21	0.40
1:A:3805:LEU:HB3	1:A:3890:LEU:HB3	2.03	0.40
1:A:4666:VAL:HA	1:A:4669:VAL:HG12	2.02	0.40
1:A:4839:MET:CB	1:G:4823:LEU:CD1	2.99	0.40
1:C:123:THR:HB	1:C:125:ARG:HH21	1.86	0.40
1:C:905:PRO:HB2	1:C:917:GLU:HB3	2.04	0.40
1:C:1100:MET:HE1	1:C:1199:VAL:O	2.22	0.40
1:C:1457:TYR:O	1:C:1458:HIS:ND1	2.54	0.40
1:C:2449:GLU:O	1:C:2452:ARG:HB2	2.20	0.40
1:C:3985:LEU:O	1:C:3989:VAL:HG23	2.21	0.40
1:E:78:LEU:O	1:E:81:MET:HG2	2.22	0.40
1:E:224:HIS:N	1:E:229:GLU:O	2.42	0.40
1:E:321:GLU:HG2	1:E:323:LEU:HG	2.03	0.40
1:E:828:GLU:OE2	1:E:831:ARG:HA	2.20	0.40
1:E:1679:ASN:HB3	1:E:1799:SER:H	1.86	0.40
1:E:1748:PHE:HA	1:E:1749:PRO:HD2	1.76	0.40
1:E:2198:MET:HB3	1:E:2239:PHE:HE1	1.86	0.40
1:E:2199:ARG:NE	1:E:2249:SER:OG	2.52	0.40
1:E:2335:LEU:HB2	1:E:2432:LEU:HD11	2.02	0.40
1:E:2449:GLU:O	1:E:2452:ARG:HB2	2.20	0.40
1:E:3985:LEU:O	1:E:3989:VAL:HG23	2.21	0.40
1:E:4175:ARG:O	1:E:4178:LEU:HB3	2.21	0.40
1:E:4582:VAL:HB	1:E:4628:VAL:HG12	2.03	0.40
1:E:4669:VAL:O	1:E:4672:LYS:HB3	2.22	0.40
1:G:321:GLU:HG2	1:G:323:LEU:HG	2.03	0.40
1:G:356:TRP:O	1:G:378:LEU:HA	2.21	0.40
1:G:426:ARG:NH2	1:G:508:GLY:O	2.54	0.40
1:G:497:TYR:HB2	1:G:515:TRP:CH2	2.57	0.40
1:G:1293:LEU:HB3	1:G:1584:ARG:HE	1.86	0.40
1:G:1945:TYR:O	1:G:1949:GLN:HG2	2.21	0.40
1:G:2210:VAL:O	1:G:2214:VAL:HG23	2.22	0.40
1:G:4770:SER:OG	1:G:4771:ILE:N	2.53	0.40
1:A:131:LEU:HB2	1:G:2460:LEU:HD21	2.02	0.40
1:A:321:GLU:HG2	1:A:323:LEU:HG	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:598:LYS:HD3	1:A:598:LYS:HA	1.87	0.40
1:A:1841:VAL:O	1:A:1845:VAL:HG23	2.21	0.40
1:A:2293:GLN:CA	1:A:2296:GLU:HG2	2.47	0.40
1:A:3775:ALA:HA	1:A:3778:MET:HG2	2.03	0.40
1:A:3886:ARG:O	1:A:3890:LEU:HD13	2.21	0.40
1:A:3927:GLN:HE21	1:A:3991:GLY:HA3	1.87	0.40
1:A:4175:ARG:O	1:A:4178:LEU:HB3	2.21	0.40
1:A:4578:LEU:CD1	1:C:4880:MET:CA	2.83	0.40
1:A:4636:THR:O	1:A:4639:MET:HE2	2.21	0.40
1:A:4675:LYS:O	1:A:4679:ARG:HG2	2.21	0.40
2:B:31:GLU:HG2	2:B:96:THR:HB	2.02	0.40
1:C:39:ALA:HB3	1:C:137:LEU:HD11	2.03	0.40
1:C:175:SER:OG	1:C:176:SER:N	2.53	0.40
1:C:216:GLY:HA3	1:C:264:PRO:CD	2.50	0.40
1:C:831:ARG:O	1:C:837:PRO:HA	2.22	0.40
1:C:1133:HIS:CE1	1:C:1134:LEU:HG	2.55	0.40
1:C:1585:LYS:HD3	1:C:1596:GLU:OE2	2.21	0.40
1:C:3805:LEU:HB3	1:C:3890:LEU:HB3	2.03	0.40
1:C:4183:ILE:HD13	1:C:4193:ILE:HD13	2.03	0.40
1:C:4570:ALA:HB2	1:C:4650:HIS:CE1	2.57	0.40
1:C:4669:VAL:O	1:C:4672:LYS:HB3	2.21	0.40
1:E:57:ASN:OD1	1:E:308:HIS:ND1	2.54	0.40
1:E:102:LEU:HD23	1:E:162:LYS:HA	2.02	0.40
1:E:1864:LYS:HZ2	1:E:1869:GLU:C	2.25	0.40
1:E:2281:ILE:HD11	1:E:2337:PHE:CG	2.56	0.40
1:E:2424:SER:HA	1:E:2427:ALA:HB3	2.02	0.40
1:E:2550:LEU:O	1:E:2554:LEU:N	2.54	0.40
1:E:2558:VAL:O	1:E:2561:LEU:HG	2.21	0.40
1:E:2858:GLN:HA	1:E:2859:PRO:HD2	1.93	0.40
1:E:3805:LEU:HB3	1:E:3890:LEU:HB3	2.03	0.40
1:E:3945:GLU:O	1:E:3948:LYS:HB2	2.22	0.40
1:E:4108:ILE:O	1:E:4111:LEU:HB3	2.21	0.40
1:E:4991:PHE:CE2	1:E:4995:LEU:HD11	2.56	0.40
1:G:590:LEU:HD13	1:G:599:VAL:HB	2.04	0.40
1:G:725:HIS:ND1	1:G:725:HIS:O	2.54	0.40
1:G:870:ILE:HA	1:G:873:LYS:HB3	2.03	0.40
1:G:905:PRO:HB2	1:G:917:GLU:HB3	2.03	0.40
1:G:1288:PHE:O	1:G:1603:VAL:HG13	2.21	0.40
1:G:1681:VAL:O	1:G:1684:ALA:HB3	2.21	0.40
1:G:2207:VAL:O	1:G:2211:MET:HG2	2.22	0.40
1:G:2251:PHE:CD1	1:G:2254:LEU:HD12	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2554:LEU:HD11	1:G:2595:LEU:HA	2.04	0.40
1:G:4820:VAL:HG12	1:G:4821:LYS:N	2.36	0.40
1:A:251:ALA:O	1:A:254:THR:OG1	2.33	0.40
1:A:426:ARG:NH2	1:A:508:GLY:O	2.54	0.40
1:A:1647:CYS:O	1:A:1648:MET:HG3	2.20	0.40
1:A:1681:VAL:O	1:A:1684:ALA:HB3	2.22	0.40
1:A:1958:LEU:HD11	1:A:3657:TYR:CE2	2.57	0.40
1:A:2101:MET:SD	1:A:2104:ARG:HD2	2.61	0.40
1:A:2251:PHE:CD1	1:A:2254:LEU:HD12	2.57	0.40
1:A:2515:GLN:O	1:A:2518:LEU:HB3	2.20	0.40
1:A:4826:ILE:CG1	1:C:4839:MET:HE3	2.52	0.40
1:A:4991:PHE:CE2	1:A:4995:LEU:HD11	2.56	0.40
1:C:120:CYS:HA	1:C:135:VAL:HA	2.04	0.40
1:C:1216:ILE:HG22	1:C:1217:CYS:N	2.37	0.40
1:C:1862:ILE:HG23	1:C:1865:MET:HE2	2.03	0.40
1:C:2131:LEU:O	1:C:2134:LEU:HB3	2.22	0.40
1:C:2554:LEU:HD11	1:C:2595:LEU:HA	2.03	0.40
1:C:2773:ASN:HB3	1:C:2775:TRP:CD1	2.56	0.40
1:C:3838:THR:O	1:C:3839:CYS:SG	2.76	0.40
1:C:3922:TYR:HA	1:C:3925:ARG:HG2	2.03	0.40
1:C:3989:VAL:O	1:C:3993:LEU:HG	2.22	0.40
1:C:4818:MET:O	1:C:4820:VAL:HA	2.22	0.40
1:E:1024:TYR:CD1	1:E:1032:LYS:HG2	2.56	0.40
1:E:1457:TYR:O	1:E:1458:HIS:ND1	2.55	0.40
1:E:1719:HIS:CD2	1:E:1800:PRO:HG2	2.57	0.40
1:E:1845:VAL:HG13	1:E:1854:PHE:HE2	1.85	0.40
1:E:2251:PHE:CD1	1:E:2254:LEU:HD12	2.57	0.40
1:E:2299:VAL:O	1:E:2360:LYS:HE2	2.20	0.40
1:E:4733:GLY:O	1:E:4737:ILE:HG12	2.21	0.40
1:E:4995:LEU:HD21	1:E:5007:GLU:HB2	2.02	0.40
1:G:669:ASP:CB	1:G:788:LYS:NZ	2.83	0.40
1:G:1719:HIS:CD2	1:G:1800:PRO:HG2	2.56	0.40
1:G:1944:GLU:HA	1:G:1947:CYS:SG	2.61	0.40
1:G:1966:VAL:O	1:G:1966:VAL:HG12	2.21	0.40
1:G:2204:HIS:ND1	1:G:2250:MET:SD	2.94	0.40
1:G:3801:GLY:HA3	1:G:3887:PHE:HE1	1.86	0.40
1:G:4989:MET:HG3	1:G:4990:PHE:N	2.37	0.40
1:A:33:LEU:HD23	1:A:35:LEU:HD23	2.03	0.40
1:A:1719:HIS:CD2	1:A:1800:PRO:HG2	2.56	0.40
1:A:3901:ASN:O	1:A:3905:THR:HG22	2.21	0.40
1:A:4995:LEU:HD21	1:A:5007:GLU:HB2	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:5011:TRP:O	1:A:5014:TYR:HB3	2.20	0.40
1:C:78:LEU:O	1:C:81:MET:HG2	2.22	0.40
1:C:248:GLU:HG2	1:C:252:VAL:HG11	2.03	0.40
1:C:321:GLU:HG2	1:C:323:LEU:HG	2.03	0.40
1:C:590:LEU:HD13	1:C:599:VAL:HB	2.04	0.40
1:C:1073:ARG:O	1:C:1074:ILE:HG13	2.22	0.40
1:C:1275:ARG:HG2	1:C:1564:PHE:HB3	2.03	0.40
1:C:1681:VAL:O	1:C:1684:ALA:HB3	2.22	0.40
1:C:1694:LEU:HB3	1:C:1715:LEU:HD12	2.04	0.40
1:C:2515:GLN:O	1:C:2518:LEU:HB3	2.20	0.40
1:C:3712:GLU:O	1:C:3713:LYS:HD2	2.21	0.40
1:C:3718:GLU:HG3	1:C:3719:ASP:N	2.35	0.40
1:C:4175:ARG:O	1:C:4178:LEU:HB3	2.21	0.40
1:C:4977:THR:HA	1:C:4981:GLU:OE1	2.21	0.40
1:E:216:GLY:HA3	1:E:264:PRO:CD	2.50	0.40
1:E:426:ARG:NH2	1:E:508:GLY:O	2.54	0.40
1:E:598:LYS:HD3	1:E:598:LYS:HA	1.87	0.40
1:E:975:VAL:HG21	1:E:1044:ARG:CB	2.47	0.40
1:E:1046:LEU:HA	1:E:1049:TYR:HB2	2.04	0.40
1:E:1230:MET:HB2	1:E:1828:ASP:OD1	2.22	0.40
1:E:2456:ILE:HD11	1:G:178:ARG:CZ	2.52	0.40
1:E:3817:LEU:HD11	1:E:3821:LYS:HE2	2.02	0.40
1:E:4058:ILE:HG13	1:E:4059:LEU:N	2.35	0.40
1:G:123:THR:HB	1:G:125:ARG:HH21	1.86	0.40
1:G:737:LEU:HB3	1:G:738:LEU:H	1.50	0.40
1:G:831:ARG:O	1:G:837:PRO:HA	2.22	0.40
1:G:1201:HIS:CD2	1:G:1202:LEU:N	2.89	0.40
1:G:1667:LEU:HD23	1:G:1710:GLY:C	2.41	0.40
1:G:1719:HIS:CG	1:G:1802:ILE:HG23	2.56	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles

### 5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	3483/5037 (69%)	3132 (90%)	258 (7%)	93 (3%)	5	31
1	C	3483/5037 (69%)	3133 (90%)	254 (7%)	96 (3%)	5	30
1	E	3483/5037 (69%)	3134 (90%)	255 (7%)	94 (3%)	5	31
1	G	3483/5037 (69%)	3137 (90%)	252 (7%)	94 (3%)	5	31
2	B	105/108 (97%)	95 (90%)	9 (9%)	1 (1%)	15	54
2	D	105/108 (97%)	95 (90%)	9 (9%)	1 (1%)	15	54
2	F	105/108 (97%)	96 (91%)	8 (8%)	1 (1%)	15	54
2	H	105/108 (97%)	97 (92%)	8 (8%)	0	100	100
All	All	14352/20580 (70%)	12919 (90%)	1053 (7%)	380 (3%)	8	31

All (380) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	806	PRO
1	A	900	ASN
1	A	914	PRO
1	A	916	PRO
1	A	971	ASP
1	A	1211	LEU
1	A	1216	ILE
1	A	1459	GLN
1	A	1763	PRO
1	A	1767	VAL
1	A	2341	VAL
1	A	3714	SER
1	A	4012	LEU
1	A	4037	ASN
1	A	4083	ASP
1	A	4084	PRO
1	A	4820	VAL
1	A	4868	ASP
1	A	4904	PRO
1	C	806	PRO
1	C	914	PRO
1	C	916	PRO
1	C	971	ASP
1	C	1211	LEU
1	C	1216	ILE
1	C	1459	GLN
1	C	1763	PRO

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Mol	Chain	Res	Type
1	C	1767	VAL
1	C	2341	VAL
1	C	3714	SER
1	C	4012	LEU
1	C	4037	ASN
1	C	4083	ASP
1	C	4084	PRO
1	C	4820	VAL
1	C	4868	ASP
1	C	4904	PRO
1	E	806	PRO
1	E	914	PRO
1	E	916	PRO
1	E	971	ASP
1	E	1211	LEU
1	E	1216	ILE
1	E	1459	GLN
1	E	1763	PRO
1	E	1767	VAL
1	E	2341	VAL
1	E	4012	LEU
1	E	4037	ASN
1	E	4083	ASP
1	E	4084	PRO
1	E	4820	VAL
1	E	4868	ASP
1	E	4904	PRO
1	G	806	PRO
1	G	914	PRO
1	G	916	PRO
1	G	971	ASP
1	G	1211	LEU
1	G	1216	ILE
1	G	1459	GLN
1	G	1763	PRO
1	G	1767	VAL
1	G	2341	VAL
1	G	3714	SER
1	G	3985	LEU
1	G	4012	LEU
1	G	4037	ASN
1	G	4083	ASP

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Mol	Chain	Res	Type
1	G	4084	PRO
1	G	4771	ILE
1	G	4820	VAL
1	G	4868	ASP
1	G	4904	PRO
1	A	334	MET
1	A	385	ASP
1	A	767	VAL
1	A	770	ALA
1	A	826	ILE
1	A	895	PRO
1	A	1483	VAL
1	A	1488	LYS
1	A	1582	SER
1	A	3844	LEU
1	A	3941	ASP
1	A	3944	GLU
1	A	4119	GLU
1	A	4770	SER
1	A	4771	ILE
1	A	4772	ASP
1	A	4870	ASP
1	A	4985	LEU
1	A	5027	CYS
1	C	334	MET
1	C	385	ASP
1	C	767	VAL
1	C	770	ALA
1	C	826	ILE
1	C	895	PRO
1	C	900	ASN
1	C	1483	VAL
1	C	1488	LYS
1	C	1582	SER
1	C	3844	LEU
1	C	3941	ASP
1	C	3944	GLU
1	C	4119	GLU
1	C	4770	SER
1	C	4771	ILE
1	C	4772	ASP
1	C	4870	ASP

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Mol	Chain	Res	Type
1	C	4985	LEU
1	C	5027	CYS
1	E	334	MET
1	E	385	ASP
1	E	767	VAL
1	E	770	ALA
1	E	826	ILE
1	E	895	PRO
1	E	900	ASN
1	E	1483	VAL
1	E	1488	LYS
1	E	1582	SER
1	E	3714	SER
1	E	3844	LEU
1	E	3944	GLU
1	E	4119	GLU
1	E	4770	SER
1	E	4771	ILE
1	E	4772	ASP
1	E	4870	ASP
1	E	4985	LEU
1	E	5027	CYS
1	G	334	MET
1	G	385	ASP
1	G	767	VAL
1	G	770	ALA
1	G	826	ILE
1	G	895	PRO
1	G	900	ASN
1	G	1483	VAL
1	G	1488	LYS
1	G	1582	SER
1	G	4119	GLU
1	G	4870	ASP
1	G	4984	ASN
1	G	5027	CYS
1	A	30	LYS
1	A	611	GLY
1	A	682	LEU
1	A	690	GLU
1	A	834	PRO
1	A	1206	GLN

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Mol	Chain	Res	Type
1	A	1254	HIS
1	A	1280	GLN
1	A	1606	SER
1	A	1772	ARG
1	A	1834	VAL
1	A	1857	GLU
1	A	2246	ASN
1	A	2466	LEU
1	A	3719	ASP
1	A	4158	PRO
1	A	4208	PRO
1	A	4867	GLU
1	A	4876	CYS
1	A	4893	ALA
1	C	30	LYS
1	C	611	GLY
1	C	682	LEU
1	C	690	GLU
1	C	834	PRO
1	C	1206	GLN
1	C	1254	HIS
1	C	1280	GLN
1	C	1512	THR
1	C	1606	SER
1	C	1772	ARG
1	C	1834	VAL
1	C	1857	GLU
1	C	2246	ASN
1	C	2466	LEU
1	C	3719	ASP
1	C	4158	PRO
1	C	4208	PRO
1	C	4867	GLU
1	C	4876	CYS
1	C	4893	ALA
1	E	30	LYS
1	E	611	GLY
1	E	682	LEU
1	E	690	GLU
1	E	834	PRO
1	E	1206	GLN
1	E	1254	HIS

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Mol	Chain	Res	Type
1	E	1280	GLN
1	E	1462	MET
1	E	1606	SER
1	E	1772	ARG
1	E	1834	VAL
1	E	1857	GLU
1	E	2246	ASN
1	E	2466	LEU
1	E	3719	ASP
1	E	3941	ASP
1	E	4158	PRO
1	E	4208	PRO
1	E	4867	GLU
1	E	4876	CYS
1	G	30	LYS
1	G	611	GLY
1	G	682	LEU
1	G	690	GLU
1	G	834	PRO
1	G	1206	GLN
1	G	1254	HIS
1	G	1280	GLN
1	G	1606	SER
1	G	1747	LEU
1	G	1772	ARG
1	G	1834	VAL
1	G	1857	GLU
1	G	2246	ASN
1	G	2466	LEU
1	G	3659	ALA
1	G	3719	ASP
1	G	3844	LEU
1	G	3944	GLU
1	G	4158	PRO
1	G	4208	PRO
1	G	4772	ASP
1	G	4867	GLU
1	G	4876	CYS
1	G	4893	ALA
1	A	56	GLN
1	A	701	GLY
1	A	827	LYS

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Mol	Chain	Res	Type
1	A	852	VAL
1	A	885	THR
1	A	1095	VAL
1	A	1284	VAL
1	A	1286	MET
1	A	1462	MET
1	A	1747	LEU
1	A	2546	MET
1	A	2826	ALA
1	A	3659	ALA
1	A	4905	ALA
1	C	56	GLN
1	C	701	GLY
1	C	827	LYS
1	C	828	GLU
1	C	852	VAL
1	C	885	THR
1	C	1095	VAL
1	C	1284	VAL
1	C	1286	MET
1	C	1462	MET
1	C	1747	LEU
1	C	2306	GLY
1	C	2546	MET
1	C	2826	ALA
1	C	3659	ALA
1	E	56	GLN
1	E	701	GLY
1	E	827	LYS
1	E	828	GLU
1	E	852	VAL
1	E	885	THR
1	E	1095	VAL
1	E	1284	VAL
1	E	1286	MET
1	E	1747	LEU
1	E	2306	GLY
1	E	2546	MET
1	E	2826	ALA
1	E	3659	ALA
1	E	4905	ALA
1	G	56	GLN

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Mol	Chain	Res	Type
1	G	701	GLY
1	G	720	HIS
1	G	827	LYS
1	G	828	GLU
1	G	852	VAL
1	G	885	THR
1	G	1095	VAL
1	G	1284	VAL
1	G	1286	MET
1	G	1462	MET
1	G	2306	GLY
1	G	2546	MET
1	G	3941	ASP
1	G	4207	MET
1	G	4905	ALA
1	A	298	GLY
1	A	676	THR
1	A	720	HIS
1	A	802	PHE
1	A	828	GLU
1	A	1139	PHE
1	A	1182	ILE
1	A	1550	PRO
1	A	2109	ASP
1	A	4207	MET
1	C	298	GLY
1	C	676	THR
1	C	720	HIS
1	C	802	PHE
1	C	1139	PHE
1	C	1182	ILE
1	C	1550	PRO
1	C	2109	ASP
1	C	4207	MET
1	C	4905	ALA
1	E	298	GLY
1	E	676	THR
1	E	720	HIS
1	E	802	PHE
1	E	908	VAL
1	E	1139	PHE
1	E	1182	ILE

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Mol	Chain	Res	Type
1	E	1550	PRO
1	E	2109	ASP
1	E	4207	MET
1	E	4893	ALA
1	G	298	GLY
1	G	676	THR
1	G	736	HIS
1	G	802	PHE
1	G	1139	PHE
1	G	1182	ILE
1	G	1515	VAL
1	G	1550	PRO
1	G	2109	ASP
1	A	1613	LEU
1	A	2306	GLY
1	C	581	ASN
1	C	1515	VAL
1	C	1613	LEU
1	C	1768	THR
1	E	1515	VAL
1	E	1613	LEU
1	E	1768	THR
1	G	1613	LEU
1	A	908	VAL
1	A	1602	PRO
1	C	908	VAL
1	C	1602	PRO
1	E	1589	PRO
1	E	1602	PRO
1	G	908	VAL
1	G	1589	PRO
1	G	1602	PRO
1	G	3808	GLY
1	A	1589	PRO
1	C	60	PRO
1	C	1589	PRO
1	E	60	PRO
1	A	60	PRO
1	A	438	ILE
1	A	1142	PRO
1	A	1437	VAL
1	C	438	ILE

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Mol	Chain	Res	Type
1	C	1142	PRO
1	C	1437	VAL
1	E	438	ILE
1	E	1142	PRO
1	E	1437	VAL
1	G	60	PRO
1	G	438	ILE
1	G	740	PRO
1	G	1142	PRO
1	G	1437	VAL
1	A	740	PRO
1	C	740	PRO
1	E	740	PRO
1	A	4035	VAL
2	B	7	ILE
2	D	7	ILE
2	F	7	ILE

### 5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	2502/4276 (58%)	2472 (99%)	30 (1%)	71	83
1	C	2504/4276 (59%)	2476 (99%)	28 (1%)	73	84
1	E	2501/4276 (58%)	2472 (99%)	29 (1%)	71	83
1	G	2501/4276 (58%)	2474 (99%)	27 (1%)	73	84
2	B	89/90 (99%)	88 (99%)	1 (1%)	73	84
2	D	89/90 (99%)	88 (99%)	1 (1%)	73	84
2	F	89/90 (99%)	88 (99%)	1 (1%)	73	84
2	H	89/90 (99%)	88 (99%)	1 (1%)	73	84
All	All	10364/17464 (59%)	10246 (99%)	118 (1%)	74	84

All (118) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	46	LEU
1	A	454	PRO
1	A	806	PRO
1	A	865	PRO
1	A	892	THR
1	A	914	PRO
1	A	916	PRO
1	A	928	THR
1	A	939	VAL
1	A	978	THR
1	A	979	PRO
1	A	1055	PRO
1	A	1211	LEU
1	A	1458	HIS
1	A	1459	GLN
1	A	1929	MET
1	A	2135	LEU
1	A	2518	LEU
1	A	2555	CYS
1	A	2914	LYS
1	A	2925	GLU
1	A	3814	GLN
1	A	3824	LYS
1	A	3835	LEU
1	A	3987	ASP
1	A	4039	MET
1	A	4082	THR
1	A	4106	PRO
1	A	4207	MET
1	A	4215	ARG
2	B	34	LYS
1	C	454	PRO
1	C	806	PRO
1	C	859	VAL
1	C	865	PRO
1	C	892	THR
1	C	914	PRO
1	C	916	PRO
1	C	928	THR
1	C	939	VAL
1	C	978	THR
1	C	979	PRO
1	C	1055	PRO

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Mol	Chain	Res	Type
1	C	1211	LEU
1	C	1458	HIS
1	C	1459	GLN
1	C	1929	MET
1	C	2135	LEU
1	C	2518	LEU
1	C	2555	CYS
1	C	2914	LYS
1	C	3814	GLN
1	C	3835	LEU
1	C	3987	ASP
1	C	4039	MET
1	C	4082	THR
1	C	4106	PRO
1	C	4207	MET
1	C	4215	ARG
2	D	34	LYS
1	E	454	PRO
1	E	806	PRO
1	E	865	PRO
1	E	892	THR
1	E	914	PRO
1	E	916	PRO
1	E	928	THR
1	E	939	VAL
1	E	978	THR
1	E	979	PRO
1	E	1055	PRO
1	E	1211	LEU
1	E	1458	HIS
1	E	1459	GLN
1	E	1513	ASP
1	E	1659	LEU
1	E	1929	MET
1	E	2135	LEU
1	E	2518	LEU
1	E	2555	CYS
1	E	2914	LYS
1	E	3814	GLN
1	E	3835	LEU
1	E	3987	ASP
1	E	4039	MET

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Mol	Chain	Res	Type
1	E	4082	THR
1	E	4106	PRO
1	E	4207	MET
1	E	4215	ARG
2	F	34	LYS
1	G	454	PRO
1	G	806	PRO
1	G	859	VAL
1	G	865	PRO
1	G	892	THR
1	G	914	PRO
1	G	916	PRO
1	G	928	THR
1	G	939	VAL
1	G	978	THR
1	G	979	PRO
1	G	1055	PRO
1	G	1211	LEU
1	G	1458	HIS
1	G	1459	GLN
1	G	1513	ASP
1	G	1929	MET
1	G	2135	LEU
1	G	2139	PRO
1	G	2518	LEU
1	G	2555	CYS
1	G	3824	LYS
1	G	4039	MET
1	G	4082	THR
1	G	4106	PRO
1	G	4207	MET
1	G	4215	ARG
2	H	34	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (155) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	113	HIS
1	A	201	ASN
1	A	224	HIS
1	A	278	GLN
1	A	379	HIS

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Mol	Chain	Res	Type
1	A	380	GLN
1	A	405	HIS
1	A	536	ASN
1	A	543	ASN
1	A	596	ASN
1	A	678	GLN
1	A	725	HIS
1	A	1127	HIS
1	A	1130	GLN
1	A	1201	HIS
1	A	1203	ASN
1	A	1459	GLN
1	A	1532	ASN
1	A	1631	GLN
1	A	1719	HIS
1	A	2184	ASN
1	A	2196	ASN
1	A	2253	HIS
1	A	2260	ASN
1	A	2498	HIS
1	A	2856	ASN
1	A	3771	HIS
1	A	3837	GLN
1	A	3882	GLN
1	A	3895	HIS
1	A	3896	ASN
1	A	3900	GLN
1	A	3906	GLN
1	A	3970	GLN
1	A	3994	HIS
1	A	3998	HIS
1	A	4857	ASN
1	A	4947	GLN
2	B	87	HIS
1	C	113	HIS
1	C	201	ASN
1	C	224	HIS
1	C	278	GLN
1	C	379	HIS
1	C	380	GLN
1	C	405	HIS
1	C	536	ASN

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Mol	Chain	Res	Type
1	C	543	ASN
1	C	596	ASN
1	C	678	GLN
1	C	725	HIS
1	C	1127	HIS
1	C	1130	GLN
1	C	1201	HIS
1	C	1203	ASN
1	C	1459	GLN
1	C	1532	ASN
1	C	1631	GLN
1	C	1719	HIS
1	C	2184	ASN
1	C	2196	ASN
1	C	2253	HIS
1	C	2260	ASN
1	C	2498	HIS
1	C	2856	ASN
1	C	3699	HIS
1	C	3771	HIS
1	C	3837	GLN
1	C	3882	GLN
1	C	3895	HIS
1	C	3896	ASN
1	C	3900	GLN
1	C	3906	GLN
1	C	3970	GLN
1	C	3994	HIS
1	C	3998	HIS
1	C	4947	GLN
2	D	87	HIS
1	E	113	HIS
1	E	201	ASN
1	E	224	HIS
1	E	278	GLN
1	E	379	HIS
1	E	380	GLN
1	E	405	HIS
1	E	536	ASN
1	E	543	ASN
1	E	596	ASN
1	E	678	GLN

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Mol	Chain	Res	Type
1	E	725	HIS
1	E	1127	HIS
1	E	1130	GLN
1	E	1201	HIS
1	E	1203	ASN
1	E	1459	GLN
1	E	1631	GLN
1	E	1719	HIS
1	E	2184	ASN
1	E	2196	ASN
1	E	2253	HIS
1	E	2260	ASN
1	E	2498	HIS
1	E	2856	ASN
1	E	3699	HIS
1	E	3771	HIS
1	E	3837	GLN
1	E	3882	GLN
1	E	3895	HIS
1	E	3896	ASN
1	E	3900	GLN
1	E	3906	GLN
1	E	3970	GLN
1	E	3994	HIS
1	E	3998	HIS
1	E	4857	ASN
1	E	4947	GLN
2	F	87	HIS
1	G	113	HIS
1	G	201	ASN
1	G	224	HIS
1	G	278	GLN
1	G	379	HIS
1	G	380	GLN
1	G	405	HIS
1	G	536	ASN
1	G	543	ASN
1	G	596	ASN
1	G	678	GLN
1	G	725	HIS
1	G	1127	HIS
1	G	1130	GLN

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Mol	Chain	Res	Type
1	G	1201	HIS
1	G	1203	ASN
1	G	1459	GLN
1	G	1631	GLN
1	G	1719	HIS
1	G	2184	ASN
1	G	2196	ASN
1	G	2253	HIS
1	G	2260	ASN
1	G	2498	HIS
1	G	2856	ASN
1	G	3771	HIS
1	G	3809	ASN
1	G	3896	ASN
1	G	3970	GLN
1	G	3994	HIS
1	G	3998	HIS
1	G	4034	ASN
1	G	4142	ASN
1	G	4728	HIS
1	G	4886	HIS
1	G	4947	GLN
1	G	4984	ASN
2	H	87	HIS

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

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

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

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

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

There are no chain breaks in this entry.

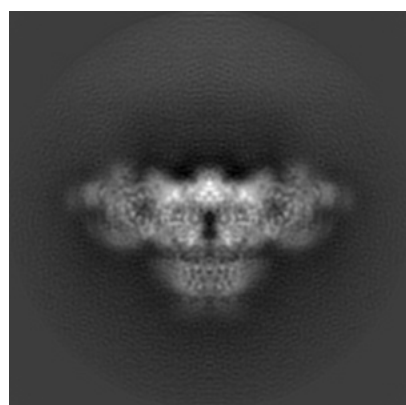
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-9521. These allow visual inspection of the internal detail of the map and identification of artifacts.

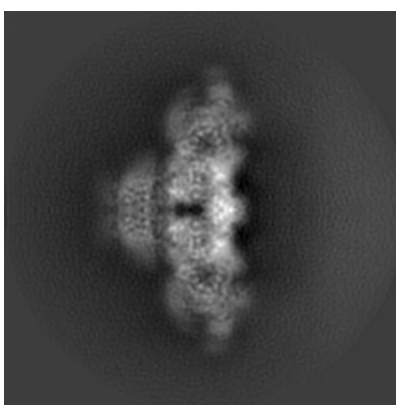
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

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

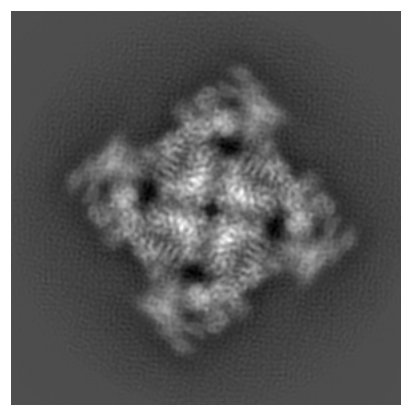
#### 6.1.1 Primary map



X



Y

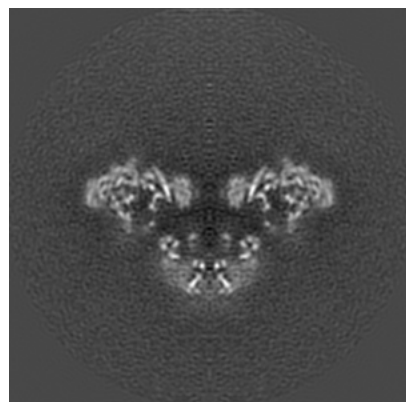


Z

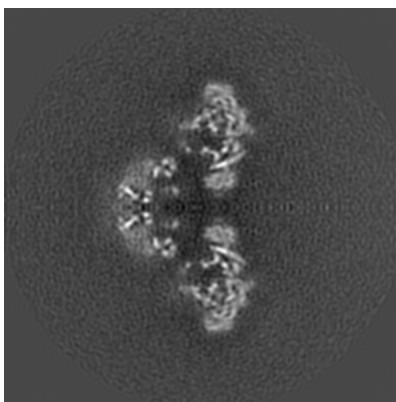
The images above show the map projected in three orthogonal directions.

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

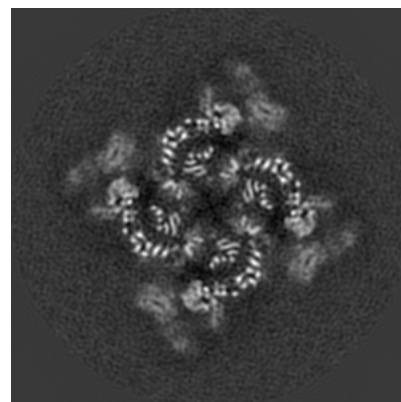
#### 6.2.1 Primary map



X Index: 180



Y Index: 180

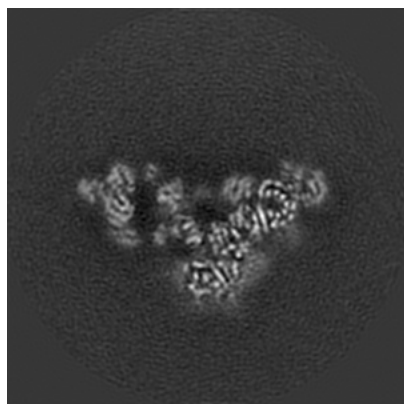


Z Index: 180

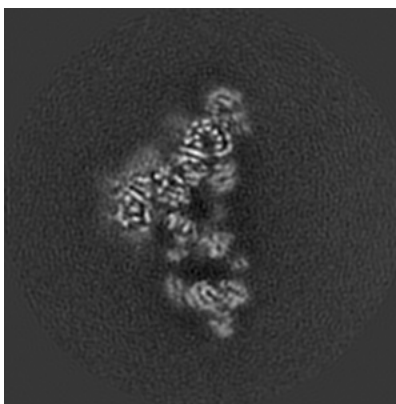
The images above show central slices of the map in three orthogonal directions.

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

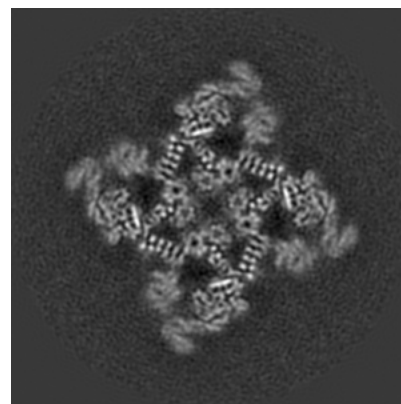
### 6.3.1 Primary map



X Index: 169



Y Index: 191



Z Index: 190

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

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

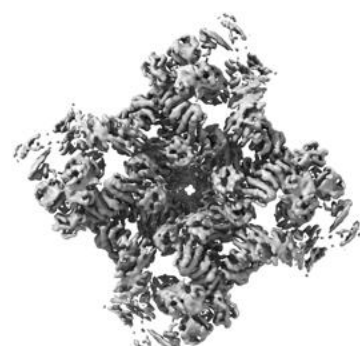
### 6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.075. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

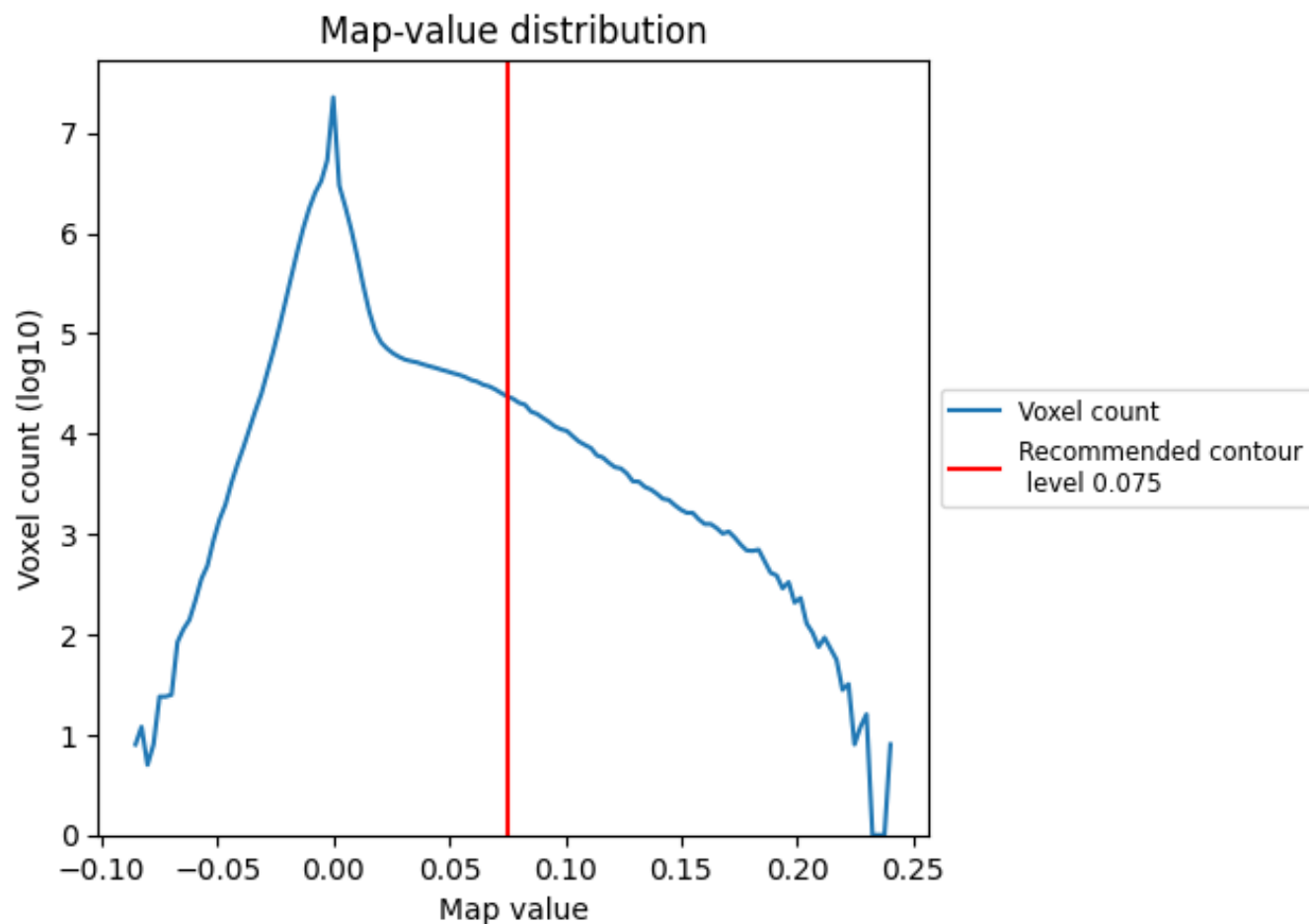
## 6.5 Mask visualisation

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

## 7 Map analysis [i](#)

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

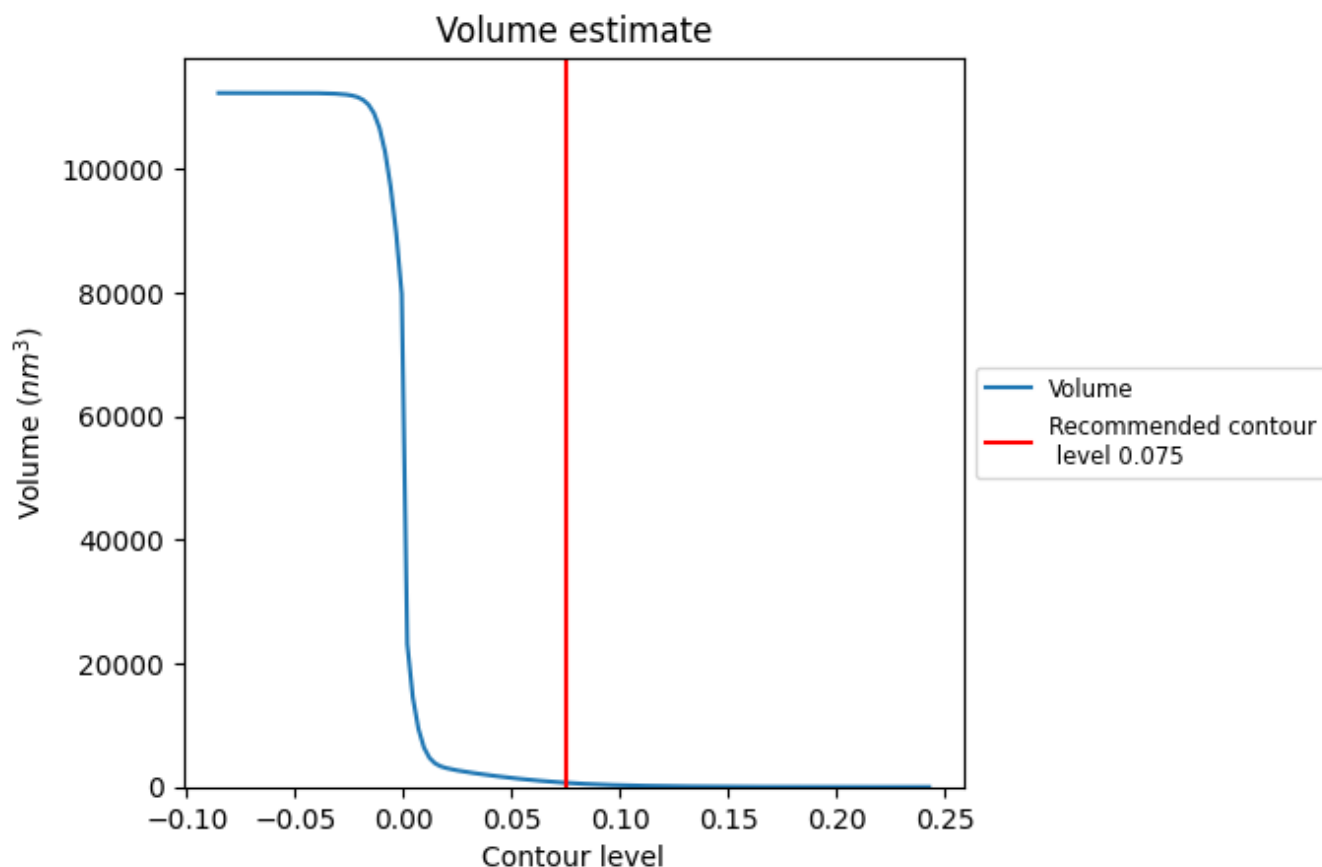
### 7.1 Map-value distribution [i](#)



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



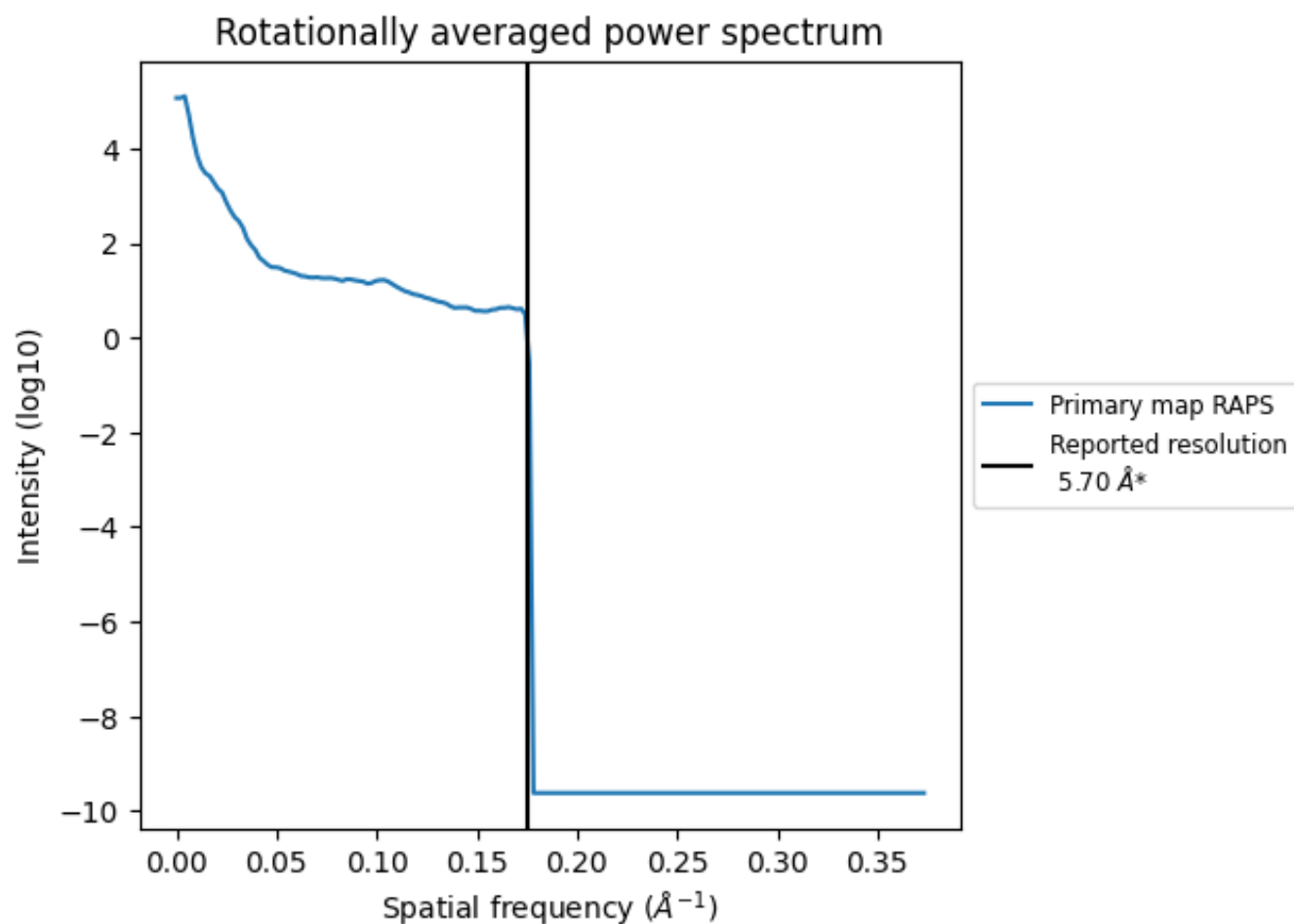
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 679 nm<sup>3</sup>; this corresponds to an approximate mass of 613 kDa.

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

### 7.3 Rotationally averaged power spectrum ⓘ



\*Reported resolution corresponds to spatial frequency of 0.175 Å<sup>-1</sup>

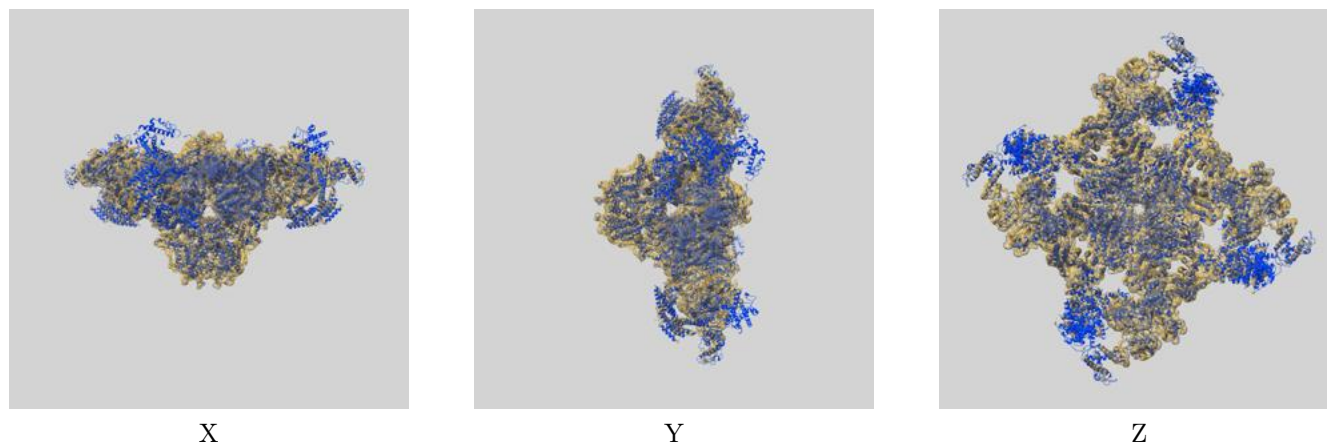
## 8 Fourier-Shell correlation

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

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

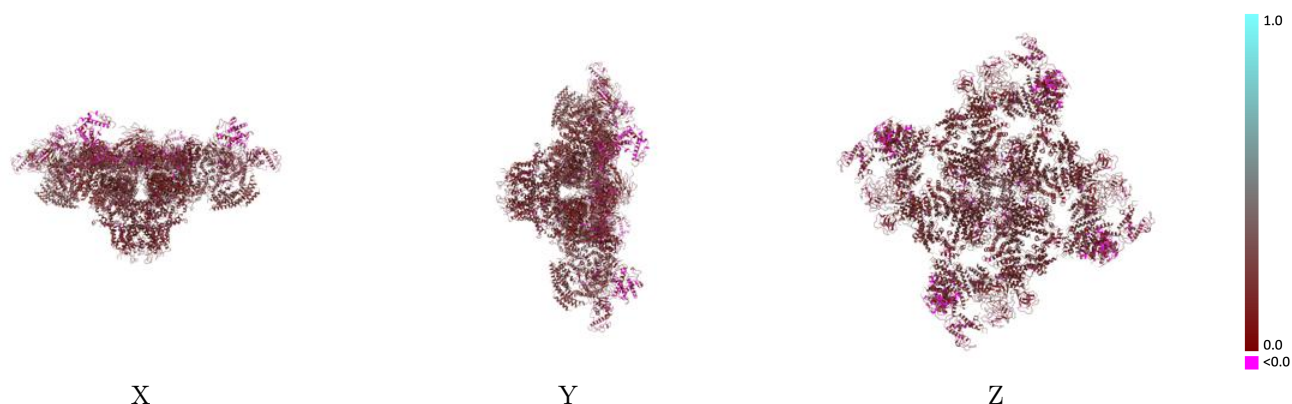
This section contains information regarding the fit between EMDB map EMD-9521 and PDB model 5GL1. Per-residue inclusion information can be found in section [3](#) on page [4](#).

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



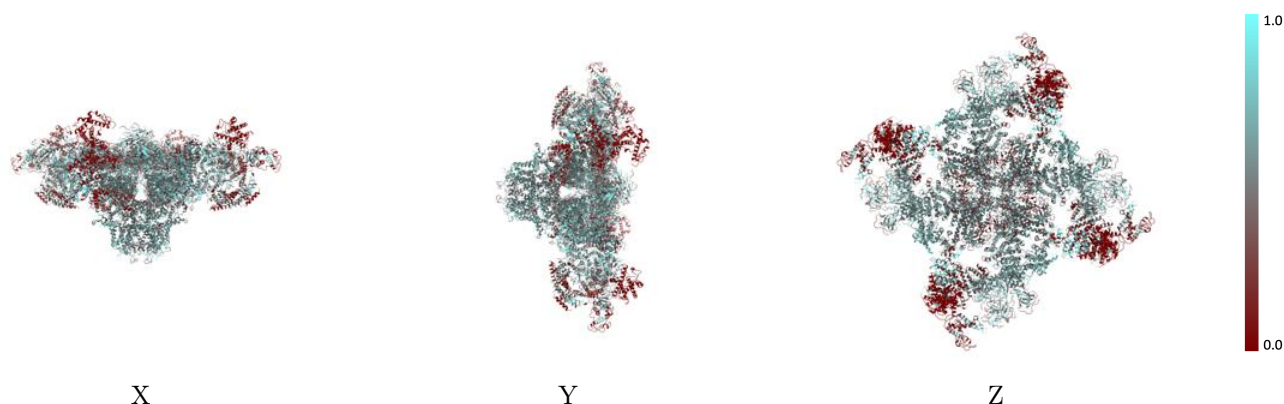
The images above show the 3D surface view of the map at the recommended contour level 0.075 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



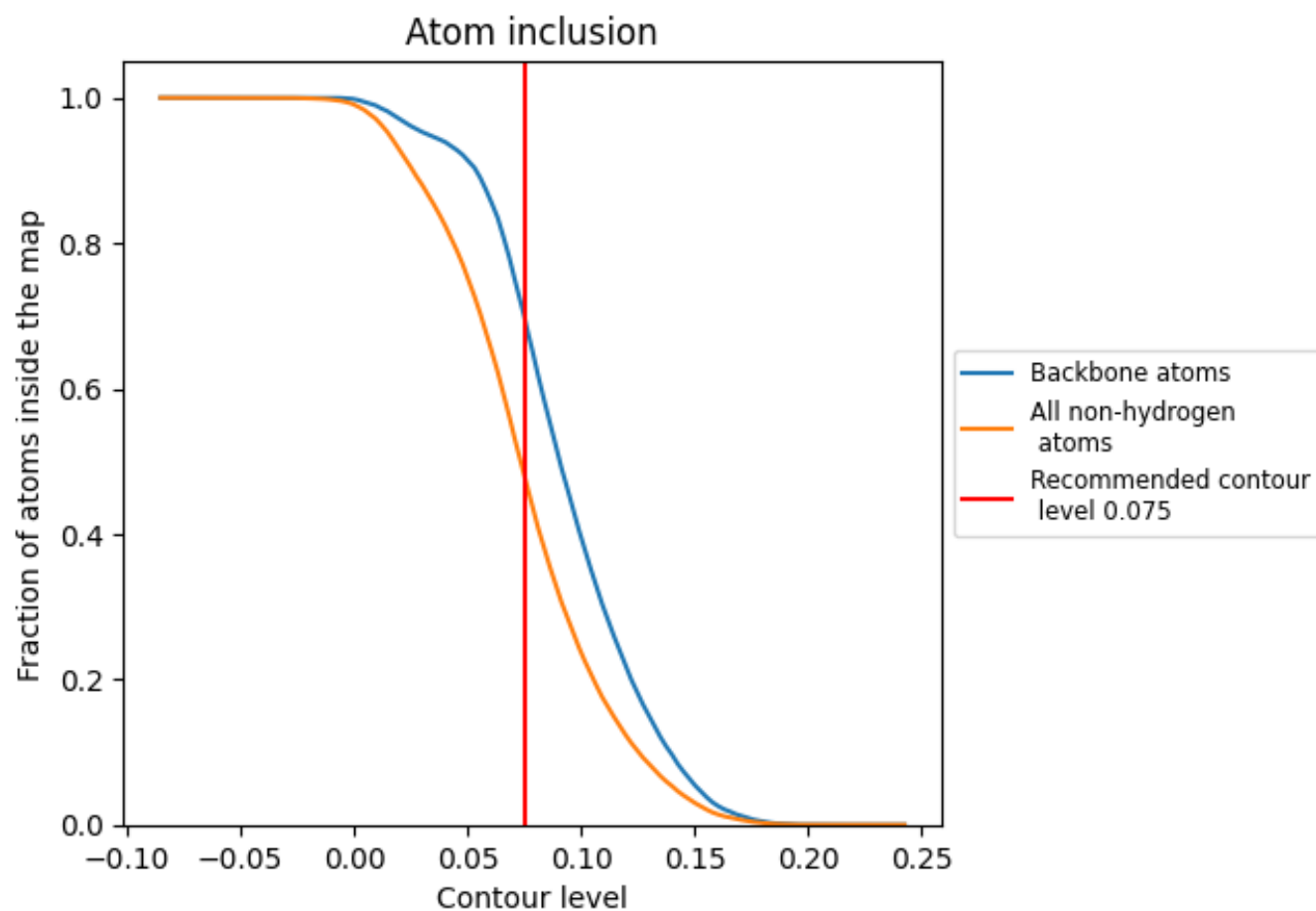
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.075).

## 9.4 Atom inclusion [i](#)



At the recommended contour level, 70% of all backbone atoms, 48% 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 (0.075) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	<div><div></div></div> 0.4829	<div><div></div></div> 0.2010
A	<div><div></div></div> 0.4823	<div><div></div></div> 0.2020
B	<div><div></div></div> 0.4988	<div><div></div></div> 0.2060
C	<div><div></div></div> 0.4824	<div><div></div></div> 0.2010
D	<div><div></div></div> 0.4988	<div><div></div></div> 0.2080
E	<div><div></div></div> 0.4823	<div><div></div></div> 0.2010
F	<div><div></div></div> 0.5000	<div><div></div></div> 0.2050
G	<div><div></div></div> 0.4824	<div><div></div></div> 0.2010
H	<div><div></div></div> 0.4975	<div><div></div></div> 0.2040

1.0

0.0

<0.0