



Full wwPDB EM Validation Report ⓘ

Mar 9, 2026 – 09:08 AM UTC

PDB ID : 5GKZ / pdb_00005gkz
EMDB ID : EMD-9519
Title : Structure of RyR1 in a closed state (C3 conformer)
Authors : Bai, X.C.; Yan, Z.; Wu, J.P.; Yan, N.
Deposited on : 2016-07-07
Resolution : 4.00 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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

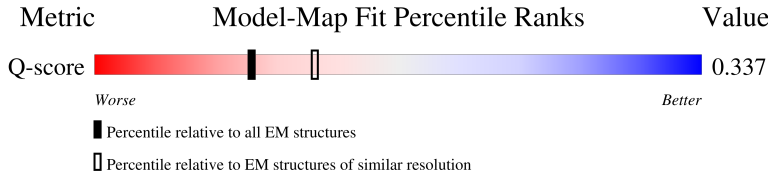
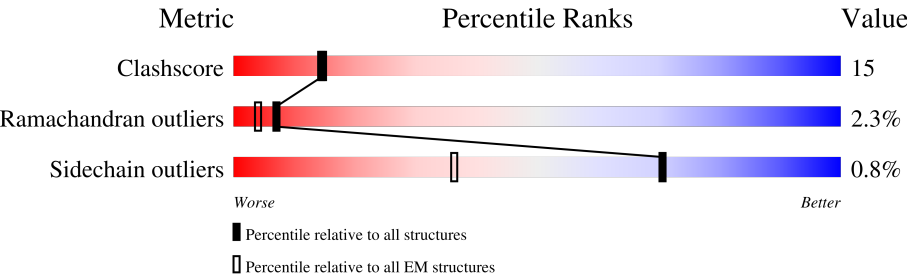
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh &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

1 Overall quality at a glance

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

The reported resolution of this entry is 4.00 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	7587 (3.50 - 4.50)

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

Mol	Chain	Length	Quality of chain
1	A	5037	
1	C	5037	
1	E	5037	
1	G	5037	

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Mol	Chain	Length	Quality of chain
2	B	108	
2	D	108	
2	F	108	
2	H	108	

2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 111000 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	3660	Total	C	N	O	S	0	0
			26917	17107	4682	4971	157		
1	C	3660	Total	C	N	O	S	0	0
			26917	17107	4682	4971	157		
1	E	3660	Total	C	N	O	S	0	0
			26917	17107	4682	4971	157		
1	G	3660	Total	C	N	O	S	0	0
			26917	17107	4682	4971	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 (CCD ID: 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	





P2616	P2631	P2634	GLU	PHE	ALA	K2638	M2639	P2640	L2657	P2658	T2659	G2660	TRP	ALA	ASN	PHE	GLY	VAL	T2667	L2679	L2682	L2686	ALA	HIS	LYS	LYS	Y2691	P2701	L2706	A2707	G2708	A2709	L2710	P2711	P2712	ASP	TYR	VAL	ASP	ALA	SER	TYR	SER	SER	LYS	LYS	ALA	GLU	LYS	ALA	ALA	THR												
VAL	ASP	ALA	GLU	GLY	N2734	F2735	D2736	P2737	R2738	P2739	V2740	E2741	T2742	L2743	N2744	V2745	I2746	I2747	P2748	E2749	K2750	L2751	D2752	S2753	F2754	I2755	N2756	K2757	F2758	A2759	E2760	Y2761	T2762	H2763	E2764	K2765	W2766	A2767	F2768	D2769	K2770	I2771	Q2772	N2773	THR	N2774	W2775	S2776	Y2777	G2778	E2779	LYS	N2780	I2781	SER	GLN	THR	E2782	E2783	E2784	L2785	K2786	T2787	H2788
P2789	M2790	L2791	R2792	P2793	Y2794	T2795	T2796	T2797	S2798	E2799	K2800	D2801	K2802	E2803	L2804	V2805	R2806	W2807	P2808	L2809	K2810	E2811	S2812	L2813	K2814	A2815	M2816	L2817	A2818	W2819	E2820	Y2821	T2822	L2823	E2824	K2825	A2826	R2827	E2828	G2829	E2830	GLU	GLU	ARG	ALA	THR	GLU	LYS	LYS	LYS	THR	ARG	LYS	ILE	SER	GLN	THR	ALA	GLN	THR				
Y2849	D2850	P2851	R2852	E2853	G2854	K2855	N2856	P2857	Q2858	P2859	P2860	D2861	L2862	S2863	G2864	V2865	T2866	L2867	S2868	R2869	E2870	L2871	Q2872	A2873	M2874	A2875	E2876	Q2877	L2878	A2879	E2880	Y2881	H2883	N2884	V2885	G2887	R2888	K2889	L2890	K2891	Q2892	E2893	L2894	E2895	A2896	K2897	G2898	G2899	G2900	T2901	H2902	P2903	L2904	L2905	V2906	P2907	Y2908							
D2909	T2910	L2911	T2912	A2913	K2914	E2915	K2916	A2917	R2918	D2919	R2920	E2921	K2922	A2923	Q2924	E2925	L2926	L2927	K2928	F2929	Q2931	M2932	N2933	G2934	Y2935	A2936	V2937	T2938	R2939	G2940	LEU	LYS	ASP	MET	GLU	LEU	ASP	THR	SER	SER	ILE	GLU	LYS	ARG	PHE	ALA	PHE	PHE	LEU	GLN	GLN	LEU	ARG	TRP	MET	ASP								
ILE	SER	GLN	PHE	ILE	ALA	HIS	LEU	ALA	VAL	VAL	SER	GLY	ARG	VAL	GLU	LYS	PRO	HIS	GLU	GLN	ILE	PHE	PHE	ALA	LYS	ILE	LEU	PRO	ASN	TYR	PHE	THR	ASN	HIS	CYS	Y3016	F3017	L3018	S3019	T3020	P3021	A3022	K3023	V3024	S3027	S3032																		
N3033	K3036	I3039	THR	SER	LEU	P3043	P3062	ALA	VAL	VAL	ASP	ASN	CYS	L3068	H3069	I3070	L3071	S3074	P3085	E3086	I3087	A3090	GLY	LEU	GLY	SER	F3095	F3096	E3097	S3098	E3104	M3106	V3107	E3108	R3111	L3112	G3113	K3114	V3115	S3116	GLN	ALA	ARG	THR	GLN	VAL	LYS	GLY	VAL	GLN														
ASN	LEU	TYR	T3132	L3137	P3138	Q3151	F3152	GLY	ASP	ASP	VAL	ILE	L3158	D3159	V3163	S3164	C3165	F3166	R3167	S3171	I3172	L3175	T3178	LYS	ASN	THR	TYR	V3183	E3184	K3185	L3186	R3187	P3188	A3189	L3190	A3195	R3196	A3199	A3200	MET	PRO	VAL	A3204	F3205	P3208	E3212	Y3213	N3214																
S3217	VAL	THR	THR	THR	LYS	SER	PRO	ARG	ARG	ALA	ILE	GLY	PRO	ASN	SER	VAL	GLU	MET	CYS	PRO	ASP	ILE	ILE	VAL	LEU	ASP	ARG	LEU	LEU	MET	ALA	GLU	SER	GLY	ALA	ARG	TYR	THR	GLU	MET	PRO	PRO	HIS	ILE	T3273	L3274	P3275																	
M3276	L3277	C3278	S3279	Y3280	L3281	P3282	R3283	R3287	P3288	E3290	ALA	PRO	PRO	P3294	A3295	L3296	P3297	A3298	P3301	P3302	P3303	C3304	N3313	SER	LEU	LEU	MET	G3317	N3318	I3319	L3320	R3321	D3330	E3331	A3339	VAL	PHE	ALA	GLN	PRO	ILE	V3346	P3351	L3354	H3355	S3356	H3357	F3358	I3359	P3360	T3361	I3362												
G3363	ARG	LEU	K3367	K3371	Q3378	E3386	G3390	E3391	L3392	L3393	V3394	R3395	D3396	E3397	PHE	SER	VAL	LEU	C3402	R3403	L3404	L3405	Y3406	P3410	L3411	L3412	L3413	N3418	R3419	R3420	A3421	H3422	Y3423	L3424	THR	GLU	P3427	N3428	A3431	E3432	F3435	ARG	M3437	V3438	E3445	GLN	N3457	V3460																
N3465	S3468	F3469	L3470	THR	ALA	ALA	ASP	SER	SER	LYS	M3478	G3482	S3486	S3489	D3490	Q3491	GLU	ARG	T3494	K3495	K3496	K3497	S3504	VAL	GLN	THR	SER	LEU	SER	ILE	VAL	ALA	Y3513	K3516	M3517	L3518	P3519	M3524	C3525	A3526	P3527	THR	ASP	GLN	ASP	LEU	ILE	MET	LEU	ALA	K3537	T3538												
A3541	L3542	K3543	D3544	THR	ASP	GLU	GLU	V3549	R3550	D3554	H3558	P3567	S3568	L3569	R3570	W3571	D3572	MET	ALA	LEU	TYR	ARG	GLY	PRO	GLY	ARG	GLU	GLU	ASP	ALA	ASP	PRO	LYS	ILE	VAL	ARG	ARG	VAL	VAL	GLN	GLU	VAL	SER	ALA	LEU	GLU	GLN	THR	GLU															

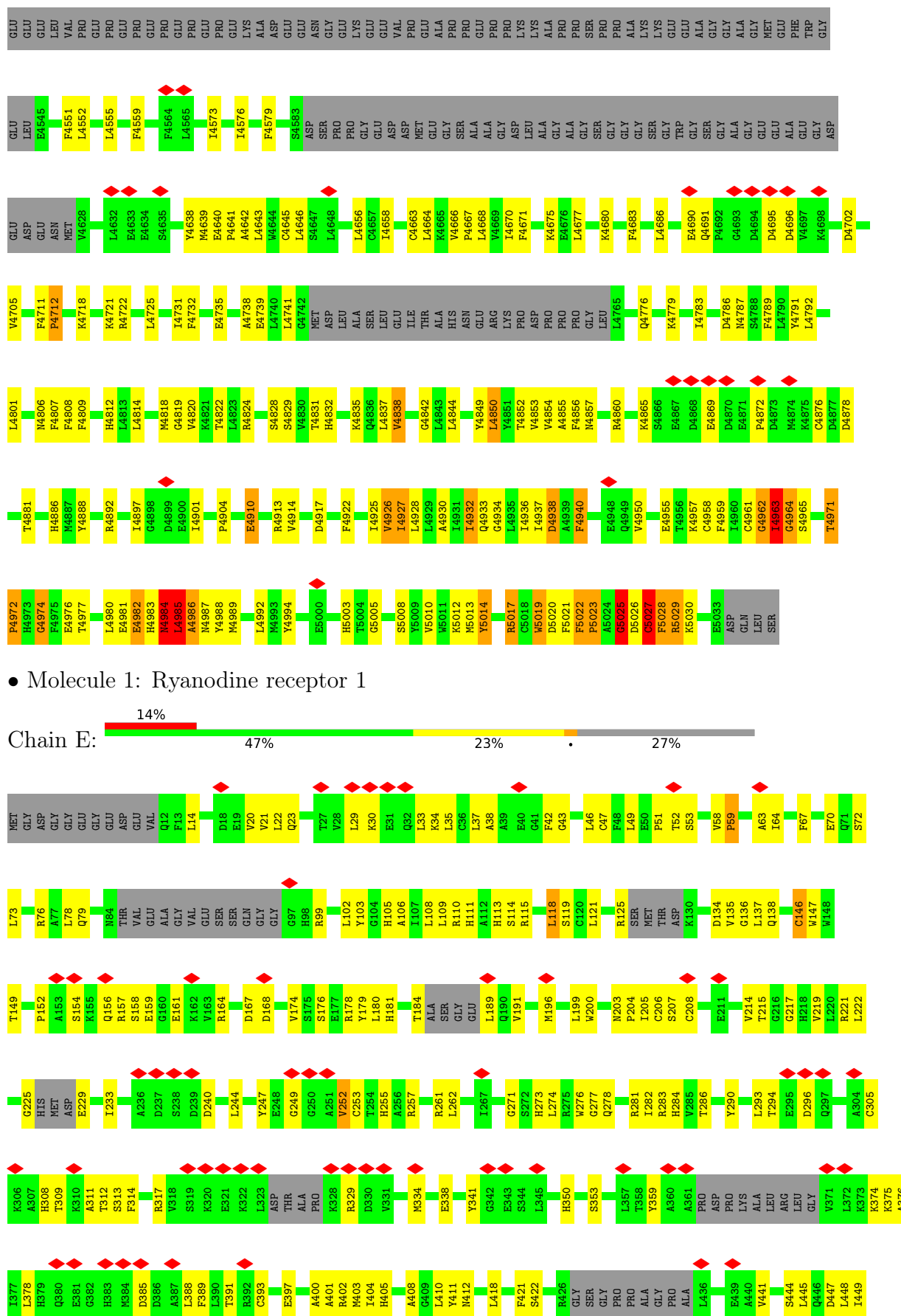


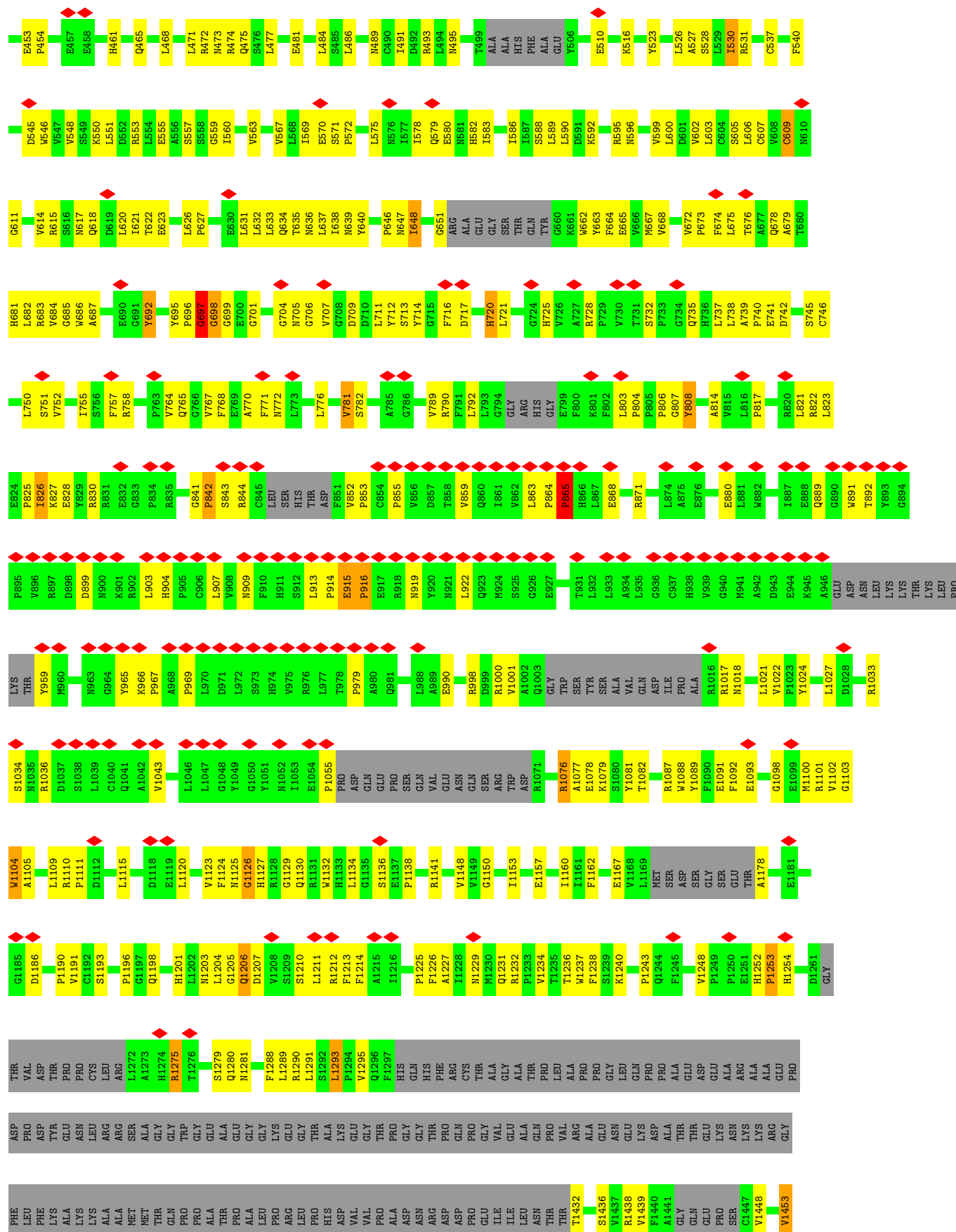








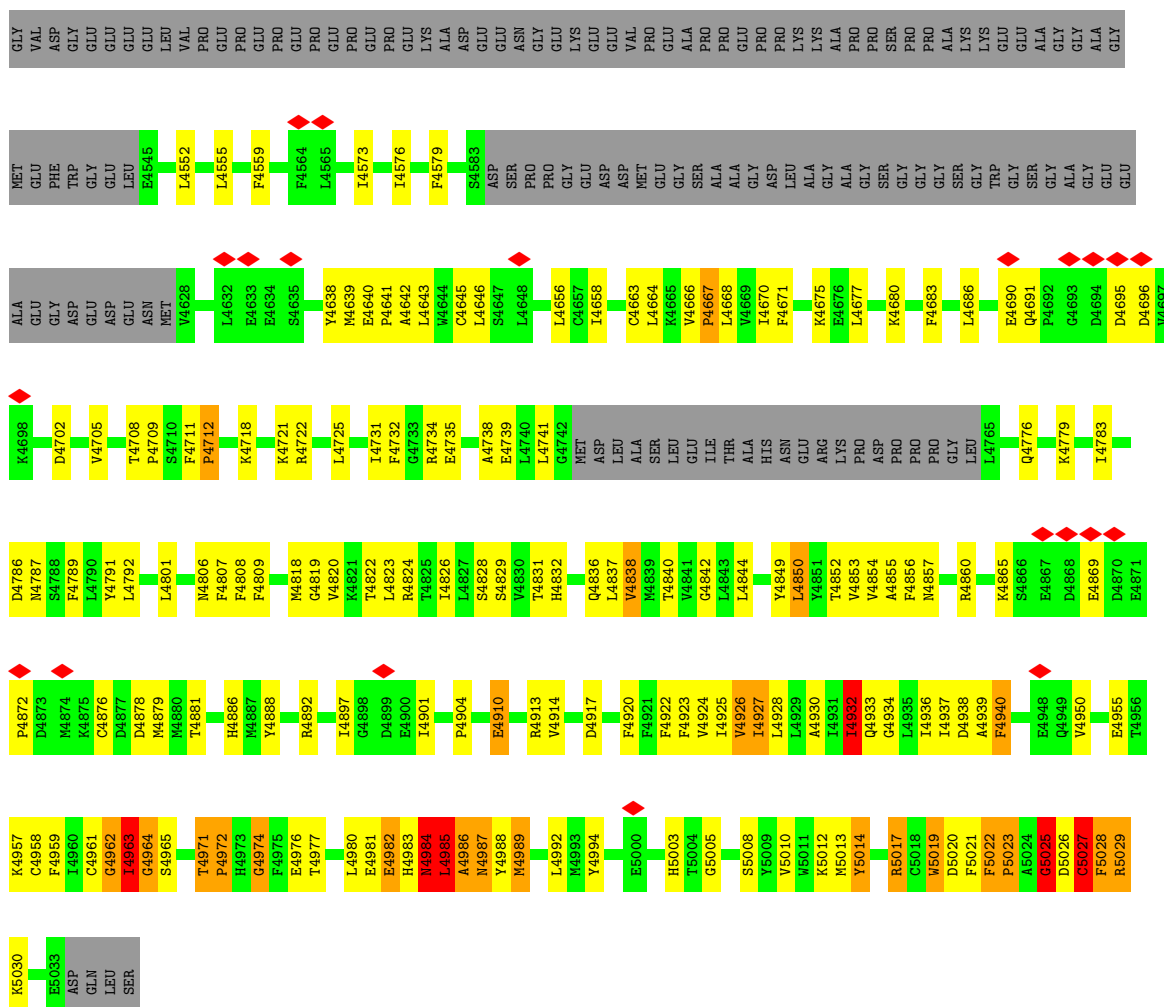




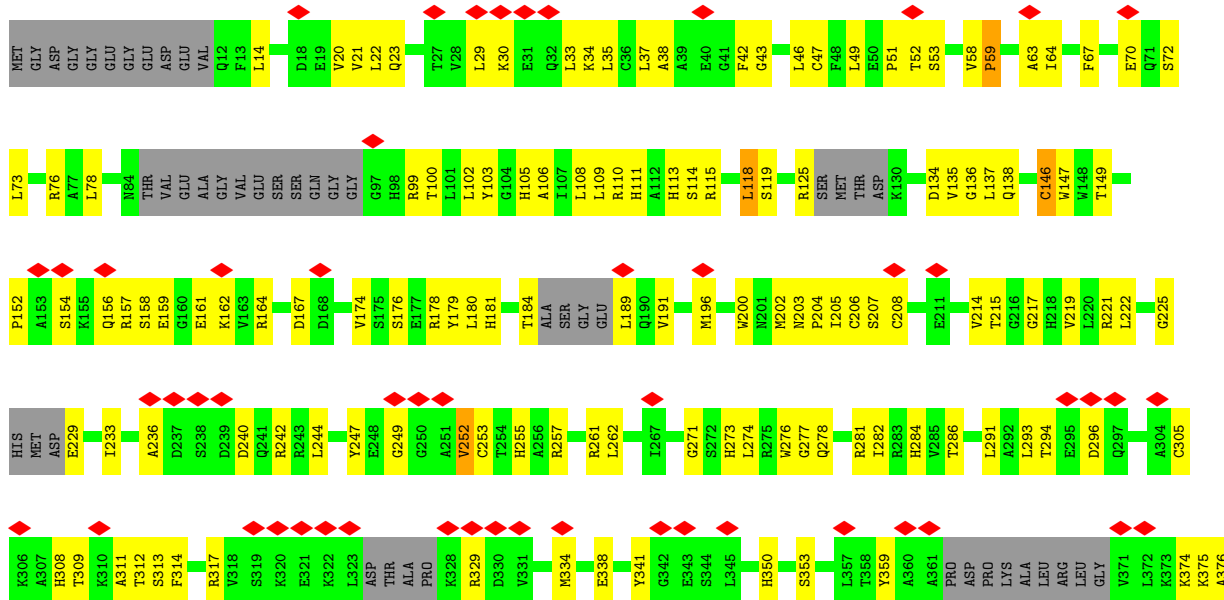








- Molecule 1: Ryanodine receptor 1

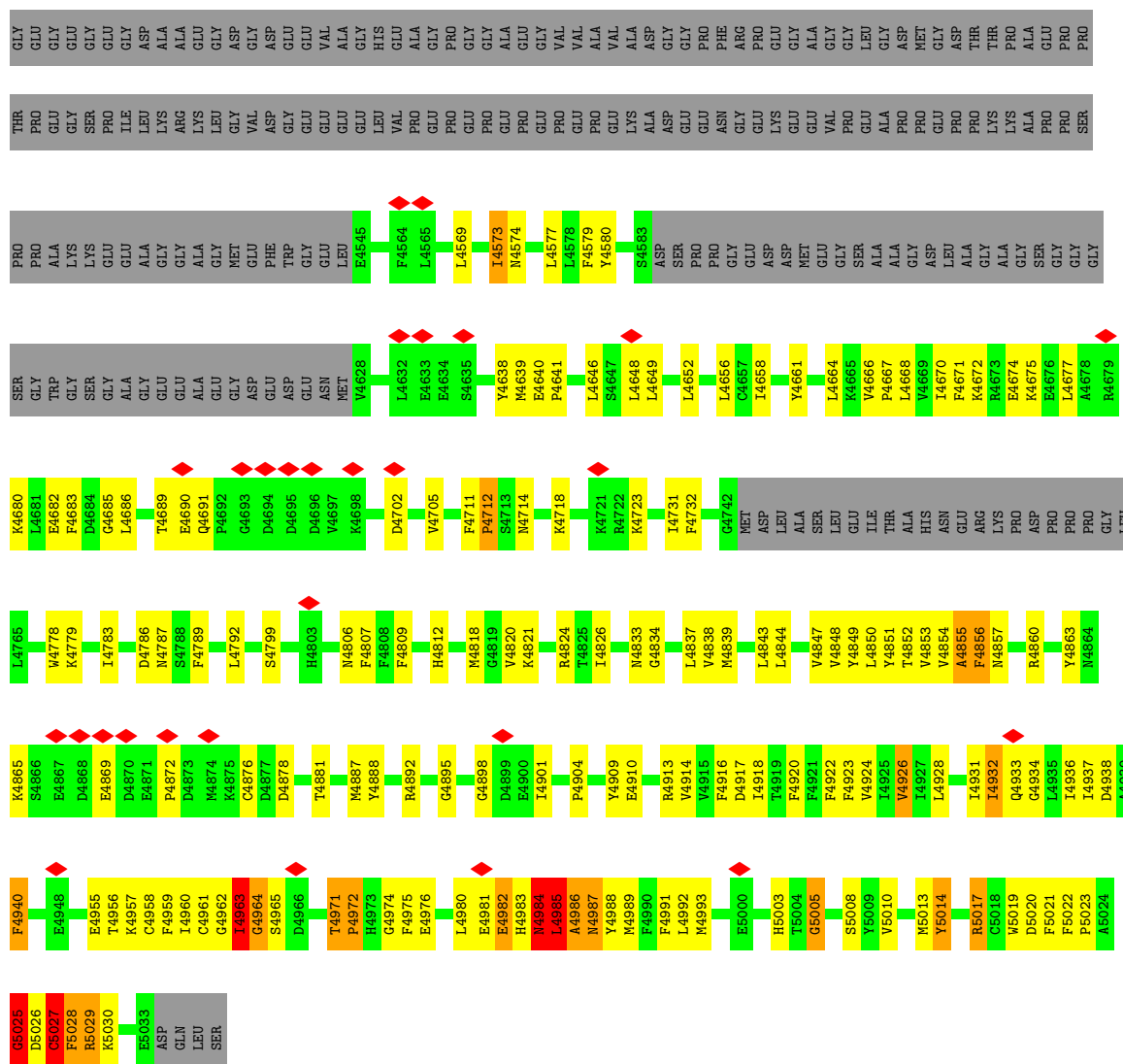




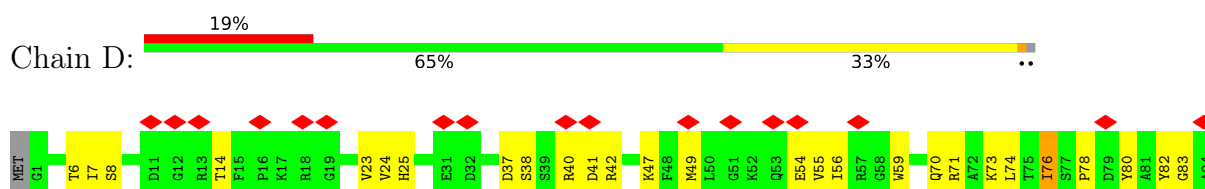


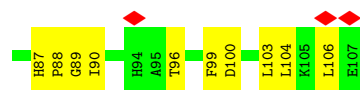




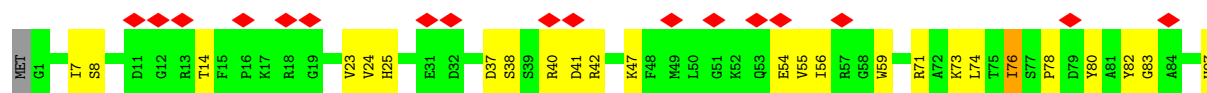


• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

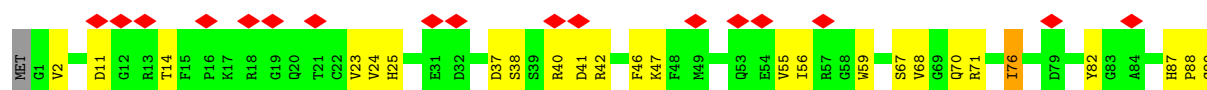




- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



- 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	64000	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	0.428	Depositor
Minimum map value	-0.192	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.018	Depositor
Recommended contour level	0.085	Depositor
Map size (Å)	482.40002, 482.40002, 482.40002	wwPDB
Map dimensions	360, 360, 360	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	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	1.22	177/27385 (0.6%)	1.09	113/37104 (0.3%)
1	C	1.22	170/27385 (0.6%)	1.09	113/37104 (0.3%)
1	E	1.22	174/27385 (0.6%)	1.09	109/37104 (0.3%)
1	G	1.23	175/27385 (0.6%)	1.08	111/37104 (0.3%)
2	B	0.81	1/851 (0.1%)	0.92	2/1146 (0.2%)
2	D	0.81	1/851 (0.1%)	0.92	2/1146 (0.2%)
2	F	0.81	1/851 (0.1%)	0.92	2/1146 (0.2%)
2	H	0.85	1/851 (0.1%)	0.90	0/1146
All	All	1.21	700/112944 (0.6%)	1.08	452/153000 (0.3%)

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	20
1	C	0	20
1	E	0	20
1	G	0	20
All	All	0	80

All (700) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	4180	ARG	CA-C	-13.31	1.38	1.52
1	A	4180	ARG	CA-C	-12.89	1.38	1.52
1	G	4988	TYR	CG-CD2	-12.82	1.12	1.39
1	E	4180	ARG	CA-C	-12.79	1.38	1.52
1	E	4190	ILE	C-O	-12.23	1.12	1.23
1	A	4190	ILE	C-O	-12.21	1.12	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	4988	TYR	CG-CD2	-12.12	1.14	1.39
1	C	4988	TYR	CG-CD2	-12.11	1.14	1.39
1	A	4988	TYR	CG-CD2	-12.08	1.14	1.39
1	C	4190	ILE	C-O	-11.88	1.12	1.23
1	G	4982	GLU	C-O	-11.71	1.08	1.24
1	G	4190	ILE	C-O	-11.65	1.12	1.23
1	A	4180	ARG	C-O	-11.17	1.10	1.23
1	E	4182	GLU	CA-C	-11.16	1.38	1.52
1	C	4180	ARG	C-O	-10.94	1.11	1.23
1	A	4182	GLU	CA-C	-10.87	1.39	1.52
1	E	4180	ARG	C-O	-10.87	1.11	1.23
1	C	4182	GLU	CA-C	-10.84	1.39	1.52
1	G	4180	ARG	CA-C	-10.67	1.38	1.52
1	G	4182	GLU	CA-C	-10.47	1.40	1.52
1	C	4181	ILE	CA-C	-10.18	1.41	1.53
1	E	4181	ILE	CA-C	-10.11	1.41	1.53
1	A	4181	ILE	CA-C	-10.08	1.41	1.53
1	G	4181	ILE	CA-C	-10.02	1.40	1.52
1	A	4963	ILE	C-O	9.97	1.35	1.24
1	A	4982	GLU	C-O	-9.96	1.11	1.24
1	E	4963	ILE	C-O	9.94	1.35	1.24
1	C	4963	ILE	C-O	9.77	1.35	1.24
1	C	4982	GLU	C-O	-9.75	1.11	1.24
1	E	4982	GLU	C-O	-9.69	1.11	1.24
1	G	4988	TYR	CE1-CZ	-9.59	1.15	1.38
2	H	76	ILE	C-O	-9.57	1.14	1.24
1	G	4963	ILE	C-O	9.40	1.35	1.24
1	E	3886	ARG	CZ-NH1	9.02	1.45	1.32
1	A	3886	ARG	CZ-NH1	8.93	1.45	1.32
1	C	3886	ARG	CZ-NH1	8.89	1.45	1.32
1	C	4182	GLU	C-O	-8.81	1.13	1.23
1	C	3892	CYS	C-O	-8.77	1.12	1.24
1	A	3892	CYS	C-O	-8.75	1.12	1.24
1	E	3892	CYS	C-O	-8.75	1.12	1.24
1	G	4988	TYR	CG-CD1	-8.68	1.21	1.39
1	C	4958	CYS	CA-C	-8.63	1.41	1.52
2	D	76	ILE	C-O	-8.61	1.14	1.24
2	B	76	ILE	C-O	-8.60	1.14	1.24
1	A	4936	ILE	C-O	8.56	1.34	1.24
1	A	4958	CYS	CA-C	-8.55	1.41	1.52
2	F	76	ILE	C-O	-8.54	1.14	1.24
1	E	4958	CYS	CA-C	-8.51	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	4182	GLU	C-O	-8.49	1.13	1.23
1	A	4182	GLU	C-O	-8.48	1.13	1.23
1	G	4192	ARG	CA-C	-8.45	1.42	1.52
1	G	3890	LEU	CA-C	-8.43	1.41	1.52
1	G	4958	CYS	CA-C	-8.28	1.42	1.52
1	C	4192	ARG	CA-C	-8.24	1.42	1.52
1	C	3890	LEU	CA-C	-8.21	1.41	1.52
1	E	4936	ILE	C-O	8.19	1.34	1.24
1	G	4182	GLU	C-O	-8.16	1.13	1.23
1	A	3890	LEU	CA-C	-8.10	1.41	1.52
1	A	3919	THR	CB-CG2	-8.08	1.25	1.52
1	A	3972	PRO	N-CA	-8.06	1.41	1.47
1	E	3890	LEU	CA-C	-8.05	1.41	1.52
1	E	3919	THR	CB-CG2	-8.05	1.25	1.52
1	G	3922	TYR	CA-CB	-8.04	1.40	1.53
1	E	3972	PRO	N-CA	-7.97	1.41	1.47
1	A	4926	VAL	CA-C	-7.95	1.42	1.53
1	A	5021	PHE	CG-CD2	-7.95	1.22	1.38
1	C	3919	THR	CB-CG2	-7.95	1.26	1.52
1	C	5021	PHE	CG-CD2	-7.86	1.22	1.38
1	E	5021	PHE	CG-CD2	-7.84	1.22	1.38
1	G	4988	TYR	N-CA	-7.82	1.35	1.46
1	E	4192	ARG	CA-C	-7.81	1.43	1.52
1	E	4988	TYR	CE1-CZ	-7.80	1.19	1.38
1	C	4988	TYR	CE1-CZ	-7.79	1.19	1.38
1	A	4988	TYR	CE1-CZ	-7.77	1.19	1.38
1	C	4926	VAL	CA-C	-7.77	1.42	1.53
1	A	4192	ARG	CA-C	-7.76	1.43	1.52
1	G	5021	PHE	CG-CD2	-7.74	1.22	1.38
1	C	4936	ILE	C-O	7.71	1.34	1.24
1	C	4986	ALA	CA-CB	-7.66	1.40	1.53
1	E	4190	ILE	CA-CB	-7.64	1.44	1.53
1	E	4853	VAL	CA-C	-7.61	1.43	1.52
1	G	4853	VAL	CA-C	-7.61	1.43	1.52
1	G	3972	PRO	N-CA	-7.58	1.41	1.47
1	A	4190	ILE	CA-CB	-7.57	1.44	1.53
1	C	3972	PRO	N-CA	-7.56	1.41	1.47
1	C	4190	ILE	CA-CB	-7.56	1.44	1.53
1	E	4986	ALA	CA-CB	-7.54	1.40	1.53
1	A	4986	ALA	CA-CB	-7.53	1.40	1.53
1	A	3922	TYR	CA-CB	-7.50	1.41	1.53
1	E	3922	TYR	CA-CB	-7.50	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	4988	TYR	CG-CD1	-7.50	1.23	1.39
1	C	3922	TYR	CA-CB	-7.50	1.41	1.53
1	A	4988	TYR	CG-CD1	-7.49	1.23	1.39
1	E	4988	TYR	CG-CD1	-7.49	1.23	1.39
1	G	4190	ILE	CA-CB	-7.48	1.44	1.53
1	E	3780	LEU	N-CA	-7.48	1.37	1.46
1	A	3780	LEU	N-CA	-7.45	1.37	1.46
1	C	3780	LEU	N-CA	-7.41	1.37	1.46
1	G	4964	GLY	C-O	-7.39	1.14	1.23
1	C	4974	GLY	CA-C	-7.38	1.41	1.51
1	G	4936	ILE	C-O	7.37	1.33	1.24
1	C	4179	GLY	CA-C	-7.35	1.45	1.52
1	G	4179	GLY	CA-C	-7.34	1.43	1.52
1	A	4853	VAL	CA-C	-7.33	1.43	1.52
1	A	5028	PHE	CA-C	-7.32	1.43	1.52
1	C	4988	TYR	N-CA	-7.30	1.37	1.46
1	E	4988	TYR	N-CA	-7.30	1.37	1.46
1	A	4844	LEU	CA-C	-7.29	1.43	1.52
1	A	4988	TYR	N-CA	-7.29	1.37	1.46
1	E	4974	GLY	CA-C	-7.28	1.41	1.51
1	E	4179	GLY	CA-C	-7.25	1.45	1.52
1	C	4853	VAL	CA-C	-7.25	1.44	1.52
1	G	4957	LYS	C-O	-7.24	1.15	1.23
1	A	4179	GLY	CA-C	-7.22	1.45	1.52
1	C	4180	ARG	CZ-NH2	-7.20	1.24	1.33
1	A	4181	ILE	CA-CB	-7.20	1.45	1.54
1	C	4181	ILE	CA-CB	-7.19	1.45	1.54
1	C	4191	GLU	C-O	7.18	1.32	1.23
1	E	5028	PHE	CA-C	-7.18	1.43	1.52
1	E	4180	ARG	CZ-NH2	-7.18	1.24	1.33
1	E	4181	ILE	CA-CB	-7.17	1.45	1.54
1	C	5023	PRO	C-O	7.17	1.33	1.24
1	C	4844	LEU	CA-C	-7.16	1.43	1.52
1	E	4850	LEU	N-CA	-7.14	1.37	1.46
1	A	4974	GLY	CA-C	-7.13	1.41	1.51
1	A	4984	ASN	CA-C	-7.13	1.43	1.52
1	G	3915	ILE	N-CA	-7.13	1.38	1.46
1	E	4844	LEU	CA-C	-7.11	1.43	1.52
1	E	4959	PHE	CA-C	-7.11	1.43	1.52
1	C	4850	LEU	N-CA	-7.10	1.37	1.46
1	A	4819	GLY	CA-C	-7.10	1.47	1.51
1	E	4984	ASN	CA-C	-7.10	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	5025	GLY	C-O	-7.09	1.14	1.23
1	G	3915	ILE	C-O	-7.08	1.17	1.24
1	A	4850	LEU	N-CA	-7.06	1.37	1.46
1	C	4819	GLY	CA-C	-7.05	1.47	1.51
1	E	4191	GLU	C-O	7.03	1.32	1.23
1	A	4180	ARG	CZ-NH2	-7.00	1.24	1.33
1	G	5025	GLY	C-O	-7.00	1.14	1.23
1	G	4989	MET	N-CA	-6.99	1.37	1.46
1	E	5023	PRO	C-O	6.99	1.33	1.24
1	A	4191	GLU	C-O	6.98	1.32	1.23
1	C	4193	ILE	CA-C	-6.97	1.44	1.52
1	A	4959	PHE	CA-C	-6.96	1.43	1.52
1	E	4193	ILE	CA-C	-6.96	1.44	1.52
1	G	4234	PHE	CG-CD1	-6.95	1.24	1.38
1	C	4959	PHE	CA-C	-6.94	1.43	1.52
1	A	5023	PRO	C-O	6.93	1.32	1.24
1	A	4193	ILE	CA-C	-6.92	1.44	1.52
1	A	5022	PHE	CG-CD1	-6.92	1.24	1.38
1	E	5022	PHE	CG-CD1	-6.92	1.24	1.38
1	A	4855	ALA	C-O	-6.92	1.15	1.24
1	G	4844	LEU	CA-C	-6.92	1.43	1.52
1	E	4819	GLY	CA-C	-6.91	1.47	1.51
1	C	4855	ALA	C-O	-6.90	1.15	1.24
1	E	4855	ALA	C-O	-6.89	1.15	1.24
1	G	4985	LEU	CA-C	-6.89	1.43	1.52
1	C	5022	PHE	CG-CD1	-6.88	1.24	1.38
1	G	4191	GLU	CA-C	-6.88	1.43	1.52
1	G	4974	GLY	CA-C	-6.87	1.42	1.51
1	G	4838	VAL	CA-C	-6.86	1.44	1.52
1	A	4983	HIS	N-CA	6.84	1.55	1.46
1	E	3968	TYR	CA-C	-6.83	1.43	1.52
1	G	4959	PHE	CA-C	-6.82	1.43	1.52
1	C	3968	TYR	CA-C	-6.82	1.43	1.52
1	A	3968	TYR	CA-C	-6.80	1.43	1.52
1	G	4230	LYS	CA-C	-6.79	1.44	1.52
1	C	4983	HIS	N-CA	6.79	1.54	1.46
1	G	4668	LEU	CA-C	-6.79	1.43	1.52
1	C	4984	ASN	CA-C	-6.77	1.43	1.52
1	A	5025	GLY	C-O	-6.73	1.14	1.23
1	G	4191	GLU	C-O	6.73	1.32	1.23
1	C	5028	PHE	CA-C	-6.73	1.44	1.52
1	G	3919	THR	CB-CG2	-6.71	1.30	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	4988	TYR	CE2-CZ	-6.70	1.22	1.38
1	C	5025	GLY	C-O	-6.69	1.14	1.23
1	G	4216	GLN	CA-C	-6.68	1.43	1.52
1	G	3798	LEU	N-CA	-6.67	1.37	1.46
1	A	4940	PHE	CA-C	-6.66	1.44	1.52
1	E	4983	HIS	N-CA	6.65	1.54	1.46
1	A	4989	MET	N-CA	-6.64	1.38	1.46
1	E	4989	MET	C-O	6.62	1.31	1.24
1	C	4964	GLY	C-O	-6.61	1.15	1.23
1	E	4940	PHE	CA-C	-6.60	1.44	1.52
1	G	4030	LEU	CA-C	-6.60	1.46	1.53
1	A	4983	HIS	C-O	-6.60	1.15	1.24
1	G	4926	VAL	CA-C	-6.57	1.43	1.52
1	C	5021	PHE	N-CA	-6.57	1.38	1.46
1	G	4193	ILE	N-CA	-6.56	1.38	1.46
1	G	4190	ILE	N-CA	-6.55	1.39	1.46
1	C	4989	MET	C-O	6.55	1.31	1.24
1	A	4989	MET	C-O	6.54	1.31	1.24
1	E	4964	GLY	C-O	-6.54	1.15	1.23
1	G	4178	LEU	N-CA	-6.54	1.38	1.46
1	G	5022	PHE	CG-CD1	-6.54	1.25	1.38
1	E	4983	HIS	C-O	-6.52	1.15	1.24
1	G	4190	ILE	CA-C	-6.50	1.45	1.53
1	A	3817	LEU	C-O	6.50	1.31	1.24
1	C	4989	MET	N-CA	-6.50	1.38	1.46
1	E	4989	MET	CA-CB	-6.49	1.43	1.53
1	A	3783	ILE	CA-C	-6.49	1.44	1.52
1	G	3780	LEU	N-CA	-6.49	1.37	1.46
1	A	5021	PHE	N-CA	-6.49	1.38	1.46
1	G	4040	ILE	N-CA	-6.47	1.38	1.46
1	E	3783	ILE	CA-C	-6.47	1.44	1.52
1	C	3922	TYR	CG-CD2	-6.47	1.25	1.39
1	E	4989	MET	N-CA	-6.46	1.38	1.46
1	E	4957	LYS	C-O	-6.46	1.16	1.23
1	G	4193	ILE	CB-CG1	-6.46	1.40	1.53
1	G	4234	PHE	CA-C	-6.46	1.44	1.52
1	E	3817	LEU	C-O	6.45	1.31	1.24
1	E	5021	PHE	N-CA	-6.45	1.38	1.46
1	A	4989	MET	CA-CB	-6.45	1.43	1.53
1	C	3817	LEU	C-O	6.45	1.31	1.24
1	C	4989	MET	CA-CB	-6.44	1.43	1.53
1	C	4983	HIS	C-O	-6.44	1.15	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	3922	TYR	CG-CD2	-6.42	1.25	1.39
1	E	3922	TYR	CG-CD2	-6.42	1.25	1.39
1	C	4190	ILE	CA-C	-6.41	1.45	1.53
1	E	3809	ASN	C-O	-6.38	1.16	1.23
1	C	4183	ILE	CB-CG1	-6.37	1.40	1.53
1	G	3973	CYS	C-O	-6.37	1.15	1.23
1	G	3970	GLN	CA-C	-6.37	1.44	1.52
1	A	4234	PHE	CA-C	-6.36	1.44	1.52
1	C	3783	ILE	CA-C	-6.36	1.44	1.52
1	A	3809	ASN	C-O	-6.36	1.16	1.23
1	C	4957	LYS	C-O	-6.36	1.16	1.23
1	A	4964	GLY	C-O	-6.35	1.15	1.23
1	E	4183	ILE	CB-CG1	-6.35	1.40	1.53
1	A	3911	THR	C-O	-6.34	1.16	1.24
1	E	4191	GLU	CA-C	-6.33	1.44	1.52
1	G	4955	GLU	CA-C	-6.33	1.43	1.52
1	G	5023	PRO	C-O	6.33	1.32	1.24
1	G	3841	VAL	C-O	6.32	1.30	1.23
1	A	3957	VAL	CA-CB	-6.32	1.47	1.54
1	G	3966	THR	CA-C	-6.31	1.44	1.52
1	A	4191	GLU	CA-C	-6.31	1.44	1.52
1	C	4191	GLU	CA-C	-6.30	1.44	1.52
1	A	4183	ILE	CB-CG1	-6.30	1.40	1.53
1	C	118	LEU	CA-C	-6.30	1.44	1.52
1	C	3911	THR	C-O	-6.30	1.16	1.24
1	C	3965	LEU	CB-CG	-6.30	1.40	1.53
1	G	146	CYS	N-CA	-6.30	1.38	1.46
1	A	3965	LEU	CB-CG	-6.29	1.40	1.53
1	E	3918	CYS	CA-C	-6.29	1.45	1.52
1	G	4983	HIS	N-CA	6.29	1.54	1.46
1	E	3911	THR	C-O	-6.29	1.16	1.24
1	C	3918	CYS	CA-C	-6.29	1.45	1.52
1	E	3957	VAL	CA-CB	-6.29	1.47	1.54
1	E	3965	LEU	CB-CG	-6.28	1.40	1.53
1	E	4234	PHE	CA-C	-6.28	1.45	1.52
1	G	3920	VAL	N-CA	-6.28	1.38	1.46
1	C	4940	PHE	CA-C	-6.27	1.44	1.52
1	E	4234	PHE	CG-CD1	-6.27	1.25	1.38
1	G	4181	ILE	CA-CB	-6.26	1.46	1.54
1	G	4183	ILE	CB-CG1	-6.26	1.41	1.53
1	C	3957	VAL	CA-CB	-6.26	1.47	1.54
1	C	4234	PHE	CA-C	-6.26	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	4230	LYS	CA-C	-6.25	1.44	1.52
1	A	4193	ILE	N-CA	-6.25	1.39	1.46
1	G	118	LEU	CA-C	-6.24	1.44	1.52
1	A	3918	CYS	CA-C	-6.24	1.45	1.52
1	A	146	CYS	N-CA	-6.24	1.38	1.46
1	C	3966	THR	N-CA	-6.24	1.38	1.46
1	A	3966	THR	N-CA	-6.21	1.38	1.46
1	E	3966	THR	N-CA	-6.21	1.38	1.46
1	E	118	LEU	CA-C	-6.21	1.44	1.52
1	E	4926	VAL	CA-C	-6.20	1.43	1.52
1	A	5014	TYR	CG-CD1	-6.20	1.26	1.39
1	C	3809	ASN	C-O	-6.19	1.16	1.23
1	A	4190	ILE	CA-C	-6.19	1.46	1.53
1	A	118	LEU	CA-C	-6.19	1.44	1.52
1	A	4957	LYS	C-O	-6.18	1.16	1.23
1	G	4887	MET	N-CA	-6.18	1.38	1.46
1	C	146	CYS	N-CA	-6.18	1.38	1.46
1	E	4193	ILE	N-CA	-6.17	1.39	1.46
1	G	4972	PRO	CA-C	-6.16	1.45	1.52
1	A	4230	LYS	CA-C	-6.16	1.45	1.52
1	G	4924	VAL	C-O	6.16	1.32	1.24
1	G	3922	TYR	CG-CD2	-6.15	1.26	1.39
1	A	4955	GLU	CA-C	-6.15	1.44	1.52
1	A	5023	PRO	N-CA	-6.14	1.39	1.47
1	E	4955	GLU	CA-C	-6.14	1.44	1.52
1	C	3970	GLN	CA-C	-6.13	1.44	1.52
1	C	4955	GLU	CA-C	-6.13	1.44	1.52
1	G	3887	PHE	CA-C	-6.12	1.45	1.52
1	G	4195	PHE	CA-C	-6.12	1.44	1.52
1	C	4234	PHE	CG-CD1	-6.12	1.26	1.38
1	A	4190	ILE	N-CA	-6.12	1.40	1.46
1	C	4234	PHE	CG-CD2	-6.11	1.26	1.38
1	C	4193	ILE	N-CA	-6.11	1.39	1.46
1	A	4234	PHE	CG-CD1	-6.10	1.26	1.38
1	C	5023	PRO	N-CA	-6.10	1.39	1.47
1	C	4190	ILE	N-CA	-6.10	1.40	1.46
1	E	4234	PHE	CG-CD2	-6.10	1.26	1.38
1	A	4234	PHE	CG-CD2	-6.10	1.26	1.38
1	C	3929	SER	CA-CB	-6.09	1.43	1.53
1	G	4855	ALA	C-O	-6.09	1.16	1.24
1	A	4202	ARG	CA-C	-6.09	1.45	1.52
1	E	3817	LEU	N-CA	-6.09	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	3929	SER	CA-CB	-6.08	1.43	1.53
1	G	5023	PRO	N-CA	-6.07	1.39	1.47
1	A	4179	GLY	C-O	6.07	1.31	1.23
1	A	3817	LEU	N-CA	-6.06	1.39	1.46
1	E	146	CYS	N-CA	-6.06	1.39	1.46
1	E	4202	ARG	CA-C	-6.05	1.45	1.52
1	G	5021	PHE	N-CA	-6.05	1.38	1.46
1	E	5023	PRO	N-CA	-6.04	1.39	1.47
1	G	4025	VAL	CA-C	-6.04	1.45	1.52
1	E	4179	GLY	C-O	6.04	1.31	1.23
1	E	3929	SER	CA-CB	-6.04	1.43	1.53
1	E	4190	ILE	N-CA	-6.04	1.40	1.46
1	C	4030	LEU	CA-C	-6.03	1.44	1.52
1	A	3957	VAL	CA-C	-6.03	1.45	1.52
1	G	4924	VAL	N-CA	-6.02	1.38	1.46
1	G	3924	LEU	N-CA	-6.01	1.38	1.46
1	E	4030	LEU	CA-C	-6.01	1.44	1.52
1	C	4202	ARG	CA-C	-6.00	1.45	1.52
1	G	3929	SER	CA-CB	-5.99	1.43	1.53
1	C	5014	TYR	CG-CD1	-5.98	1.26	1.39
1	E	4190	ILE	CA-C	-5.98	1.46	1.53
1	A	4030	LEU	CA-C	-5.97	1.44	1.52
1	A	5020	ASP	N-CA	-5.96	1.38	1.46
1	C	3835	LEU	CA-CB	-5.96	1.44	1.53
1	C	4195	PHE	CA-C	-5.96	1.45	1.52
1	E	3957	VAL	CA-C	-5.96	1.45	1.52
1	C	3957	VAL	CA-C	-5.96	1.45	1.52
1	A	5003	HIS	C-O	-5.95	1.16	1.23
1	G	3776	ALA	CA-C	-5.95	1.44	1.52
1	G	5008	SER	CA-C	-5.95	1.44	1.52
1	A	3970	GLN	CA-C	-5.95	1.45	1.52
1	A	4195	PHE	CA-C	-5.95	1.45	1.52
1	C	3817	LEU	N-CA	-5.94	1.39	1.46
1	A	3804	ILE	CA-C	-5.94	1.43	1.52
1	A	3798	LEU	N-CA	-5.93	1.39	1.46
1	E	3966	THR	CA-C	-5.92	1.45	1.52
1	G	3697	PRO	C-O	-5.92	1.16	1.24
1	C	3804	ILE	CA-C	-5.92	1.43	1.52
1	E	3804	ILE	CA-C	-5.91	1.43	1.52
1	C	3798	LEU	N-CA	-5.91	1.39	1.46
1	A	3966	THR	CA-C	-5.91	1.45	1.52
1	E	3915	ILE	N-CA	-5.91	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	3970	GLN	CA-C	-5.90	1.45	1.52
1	C	4025	VAL	CA-C	-5.89	1.44	1.52
1	A	4025	VAL	CA-C	-5.88	1.44	1.52
1	E	3798	LEU	N-CA	-5.88	1.39	1.46
1	C	3966	THR	CA-C	-5.88	1.45	1.52
1	G	3961	VAL	CA-CB	-5.88	1.46	1.54
1	C	3915	ILE	N-CA	-5.87	1.39	1.46
1	C	5020	ASP	N-CA	-5.86	1.38	1.46
1	E	5003	HIS	C-O	-5.86	1.16	1.23
1	G	4963	ILE	CA-CB	-5.85	1.46	1.54
1	E	4025	VAL	CA-C	-5.85	1.44	1.52
1	E	3835	LEU	CA-CB	-5.84	1.44	1.53
1	E	5014	TYR	CG-CD1	-5.84	1.27	1.39
1	A	3835	LEU	CA-CB	-5.84	1.44	1.53
1	A	5029	ARG	CZ-NH2	-5.83	1.25	1.33
1	C	4179	GLY	C-O	5.83	1.31	1.23
1	C	5003	HIS	C-O	-5.82	1.17	1.23
1	E	5010	VAL	CA-C	-5.82	1.45	1.52
1	G	4202	ARG	CA-C	-5.82	1.45	1.52
1	A	1640	HIS	CA-C	-5.81	1.45	1.52
1	G	3783	ILE	CA-C	-5.81	1.45	1.52
1	G	4932	ILE	N-CA	-5.80	1.39	1.46
1	G	4145	VAL	CA-CB	-5.80	1.47	1.54
1	E	4195	PHE	CA-C	-5.79	1.45	1.52
1	E	73	LEU	C-O	-5.79	1.16	1.23
1	E	4854	VAL	CA-C	-5.79	1.45	1.52
1	A	3931	SER	N-CA	-5.78	1.39	1.46
1	A	2111	VAL	CA-C	-5.78	1.45	1.52
1	G	4573	ILE	CA-C	-5.78	1.45	1.52
1	A	4038	GLY	C-O	-5.77	1.15	1.23
1	G	3911	THR	C-O	-5.77	1.17	1.24
1	G	4981	GLU	C-O	-5.77	1.17	1.24
1	G	3820	LEU	N-CA	-5.76	1.39	1.46
1	E	5020	ASP	N-CA	-5.76	1.38	1.46
1	C	313	SER	C-O	-5.76	1.16	1.23
1	C	4668	LEU	CA-C	-5.76	1.45	1.52
1	A	5010	VAL	CA-C	-5.76	1.45	1.52
1	G	5013	MET	C-O	-5.76	1.16	1.24
1	E	3969	ILE	CA-C	-5.75	1.45	1.52
1	A	3915	ILE	N-CA	-5.75	1.39	1.46
1	E	5029	ARG	CZ-NH2	-5.74	1.25	1.33
1	G	4848	VAL	C-O	-5.74	1.17	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	5010	VAL	CA-C	-5.73	1.45	1.52
1	C	4038	GLY	C-O	-5.73	1.15	1.23
1	E	4986	ALA	C-O	5.73	1.31	1.24
1	E	4230	LYS	CA-C	-5.73	1.45	1.52
1	G	3766	GLN	C-O	5.72	1.31	1.24
1	G	4569	LEU	C-O	-5.72	1.16	1.24
1	C	4986	ALA	C-O	5.72	1.31	1.24
1	E	2111	VAL	CA-C	-5.72	1.46	1.52
1	G	5020	ASP	N-CA	-5.72	1.38	1.45
1	C	5029	ARG	CZ-NH2	-5.72	1.26	1.33
1	G	313	SER	C-O	-5.72	1.16	1.23
1	C	1640	HIS	CA-C	-5.71	1.45	1.52
1	E	3931	SER	N-CA	-5.71	1.39	1.46
1	E	1640	HIS	CA-C	-5.71	1.45	1.52
1	E	1453	VAL	C-O	-5.70	1.18	1.24
1	G	4853	VAL	N-CA	-5.70	1.39	1.46
1	C	3931	SER	N-CA	-5.70	1.39	1.46
1	C	3969	ILE	CA-C	-5.69	1.45	1.52
1	E	4963	ILE	CA-CB	-5.68	1.46	1.54
1	A	3969	ILE	CA-C	-5.68	1.45	1.52
1	G	1453	VAL	C-O	-5.68	1.18	1.24
1	G	3892	CYS	C-O	-5.68	1.16	1.24
1	G	4957	LYS	CA-C	-5.68	1.45	1.52
1	E	313	SER	C-O	-5.68	1.17	1.23
1	A	4994	TYR	CA-C	-5.68	1.45	1.52
1	C	1453	VAL	C-O	-5.68	1.18	1.24
1	A	313	SER	C-O	-5.67	1.17	1.23
1	G	3918	CYS	CA-C	-5.67	1.45	1.52
1	A	4671	PHE	CG-CD1	-5.67	1.26	1.38
1	G	4963	ILE	N-CA	-5.67	1.39	1.46
1	C	4671	PHE	CG-CD1	-5.66	1.26	1.38
1	E	4972	PRO	N-CA	-5.66	1.40	1.47
1	G	2111	VAL	CA-C	-5.66	1.46	1.52
1	G	3964	SER	CA-CB	-5.66	1.43	1.53
1	A	4972	PRO	N-CA	-5.65	1.40	1.47
1	A	4986	ALA	N-CA	-5.65	1.38	1.46
1	A	1453	VAL	C-O	-5.65	1.18	1.24
1	G	1640	HIS	CA-C	-5.65	1.45	1.52
1	G	4179	GLY	C-O	5.65	1.31	1.23
1	G	4923	PHE	CA-C	-5.65	1.49	1.52
1	G	5028	PHE	CA-CB	-5.65	1.44	1.53
1	E	4038	GLY	C-O	-5.65	1.15	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	4193	ILE	CB-CG1	-5.64	1.42	1.53
1	G	5013	MET	CA-C	-5.64	1.45	1.52
1	C	4193	ILE	CB-CG1	-5.64	1.42	1.53
1	E	4193	ILE	CB-CG1	-5.64	1.42	1.53
1	A	4965	SER	CA-C	-5.63	1.45	1.52
1	G	5027	CYS	CA-CB	-5.63	1.44	1.53
1	A	73	LEU	C-O	-5.63	1.17	1.23
1	E	1076	ARG	CZ-NH2	-5.63	1.26	1.33
1	G	3779	VAL	CA-C	-5.63	1.45	1.52
1	E	3920	VAL	N-CA	-5.62	1.39	1.46
1	E	4994	TYR	CA-C	-5.62	1.45	1.52
1	C	4972	PRO	CA-C	-5.62	1.45	1.52
1	C	3920	VAL	N-CA	-5.62	1.39	1.46
1	C	4994	TYR	CA-C	-5.62	1.45	1.52
1	C	4040	ILE	N-CA	-5.61	1.39	1.46
1	C	4986	ALA	N-CA	-5.61	1.38	1.46
1	C	2111	VAL	CA-C	-5.60	1.46	1.52
1	G	4671	PHE	CG-CD1	-5.59	1.27	1.38
1	A	4177	TYR	CB-CG	-5.58	1.39	1.51
1	E	4177	TYR	CB-CG	-5.58	1.39	1.51
1	G	4180	ARG	CZ-NH2	-5.58	1.26	1.33
1	C	4965	SER	CA-C	-5.58	1.45	1.52
1	A	4668	LEU	CA-C	-5.58	1.45	1.52
1	A	4177	TYR	N-CA	-5.57	1.38	1.46
1	E	4972	PRO	CA-C	-5.57	1.45	1.52
1	E	4671	PHE	CG-CD1	-5.56	1.27	1.38
1	G	4991	PHE	N-CA	-5.56	1.39	1.46
1	A	4963	ILE	CA-CB	-5.56	1.46	1.54
1	A	4988	TYR	CE2-CZ	-5.56	1.25	1.38
1	A	5008	SER	CA-C	-5.56	1.45	1.52
1	C	5008	SER	CA-C	-5.56	1.45	1.52
1	A	3920	VAL	N-CA	-5.55	1.39	1.46
1	C	5013	MET	CA-C	-5.55	1.45	1.52
1	E	4040	ILE	N-CA	-5.55	1.39	1.46
1	E	5013	MET	CA-C	-5.55	1.45	1.52
1	G	5028	PHE	CA-C	-5.55	1.45	1.52
1	C	4988	TYR	CE2-CZ	-5.55	1.25	1.38
1	E	3960	GLN	CA-C	-5.55	1.45	1.52
1	A	4972	PRO	CA-C	-5.55	1.45	1.52
1	E	4177	TYR	N-CA	-5.55	1.38	1.46
1	G	3885	PHE	N-CA	-5.54	1.38	1.46
1	G	5029	ARG	CZ-NH2	-5.54	1.26	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	4040	ILE	N-CA	-5.53	1.39	1.46
1	E	4986	ALA	N-CA	-5.53	1.38	1.46
1	G	73	LEU	C-O	-5.53	1.17	1.23
1	C	3960	GLN	CA-C	-5.53	1.45	1.52
1	E	4963	ILE	N-CA	-5.53	1.39	1.46
1	E	4965	SER	CA-C	-5.53	1.45	1.52
1	G	4234	PHE	CG-CD2	-5.52	1.27	1.38
1	C	4972	PRO	N-CA	-5.52	1.40	1.47
1	A	3723	MET	CA-C	-5.52	1.45	1.52
1	C	4177	TYR	CB-CG	-5.51	1.39	1.51
1	C	5027	CYS	CA-CB	-5.51	1.44	1.53
1	A	3960	GLN	CA-C	-5.51	1.45	1.52
1	G	3880	PHE	C-O	-5.50	1.17	1.24
1	C	73	LEU	C-O	-5.50	1.17	1.23
1	C	4177	TYR	N-CA	-5.50	1.38	1.46
1	E	4988	TYR	CE2-CZ	-5.50	1.25	1.38
1	E	5008	SER	CA-C	-5.50	1.45	1.52
1	G	3954	ALA	C-O	-5.50	1.17	1.24
1	E	4177	TYR	C-O	-5.50	1.16	1.23
1	G	5003	HIS	C-O	-5.49	1.17	1.23
1	A	4986	ALA	C-O	5.49	1.31	1.24
1	E	5027	CYS	CA-CB	-5.49	1.44	1.53
1	G	4177	TYR	N-CA	-5.49	1.38	1.46
1	A	3995	VAL	CA-C	-5.48	1.45	1.52
1	A	4842	GLY	C-O	5.48	1.30	1.23
1	A	5013	MET	CA-C	-5.48	1.45	1.52
1	E	4927	ILE	CA-C	-5.48	1.45	1.52
1	A	4153	HIS	CA-C	-5.48	1.45	1.52
1	G	3968	TYR	CA-C	-5.47	1.45	1.52
1	C	3723	MET	CA-C	-5.47	1.45	1.52
1	E	3723	MET	CA-C	-5.47	1.45	1.52
1	E	4668	LEU	CA-C	-5.46	1.45	1.52
1	C	3995	VAL	CA-C	-5.46	1.45	1.52
1	C	4963	ILE	N-CA	-5.45	1.39	1.46
1	G	4918	ILE	N-CA	-5.44	1.39	1.46
1	G	3935	TRP	N-CA	-5.44	1.39	1.46
1	E	4924	VAL	CA-C	-5.43	1.45	1.52
1	G	4924	VAL	CA-CB	-5.42	1.47	1.54
1	A	4177	TYR	C-O	-5.42	1.16	1.23
1	E	4178	LEU	C-O	-5.42	1.17	1.24
1	E	4192	ARG	C-O	-5.42	1.17	1.24
1	G	4848	VAL	CA-C	-5.42	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	3804	ILE	CA-C	-5.42	1.44	1.52
1	A	4963	ILE	N-CA	-5.41	1.39	1.46
1	C	4177	TYR	C-O	-5.41	1.16	1.23
1	G	3700	GLN	CA-C	-5.41	1.45	1.52
1	E	4850	LEU	C-O	5.41	1.30	1.24
1	G	3835	LEU	CA-CB	-5.41	1.44	1.53
1	G	3931	SER	N-CA	-5.41	1.39	1.46
1	A	4971	THR	C-O	-5.41	1.16	1.23
1	C	4153	HIS	C-O	-5.40	1.17	1.24
1	C	4192	ARG	C-O	-5.40	1.17	1.24
1	G	3883	ASP	CA-C	-5.40	1.45	1.52
1	C	4842	GLY	C-O	5.40	1.30	1.23
1	A	4890	GLY	C-O	-5.39	1.17	1.23
1	C	4238	CYS	N-CA	-5.39	1.39	1.46
1	E	3995	VAL	CA-C	-5.39	1.46	1.52
1	G	3965	LEU	CB-CG	-5.38	1.42	1.53
1	E	4238	CYS	N-CA	-5.38	1.39	1.46
1	A	4192	ARG	C-O	-5.37	1.17	1.24
1	E	4195	PHE	CG-CD2	-5.37	1.27	1.38
1	E	4201	ASN	C-O	-5.37	1.17	1.24
1	E	4153	HIS	CA-C	-5.37	1.45	1.52
1	G	4940	PHE	C-O	-5.37	1.17	1.24
1	A	5027	CYS	CA-CB	-5.37	1.44	1.53
1	A	3990	VAL	CA-C	-5.36	1.46	1.52
1	A	4238	CYS	N-CA	-5.36	1.39	1.46
1	E	3969	ILE	C-O	-5.36	1.15	1.23
1	G	5005	GLY	CA-C	5.36	1.59	1.51
1	G	3917	ILE	N-CA	-5.35	1.39	1.46
1	A	4178	LEU	C-O	-5.35	1.17	1.24
1	E	4153	HIS	C-O	-5.34	1.17	1.24
1	G	3885	PHE	CG-CD2	-5.34	1.27	1.38
1	A	3887	PHE	CA-C	-5.33	1.46	1.52
1	G	4847	VAL	CA-C	-5.33	1.45	1.52
1	C	4559	PHE	CG-CD1	-5.33	1.27	1.38
1	C	4838	VAL	CA-C	-5.33	1.45	1.52
1	G	4856	PHE	CA-C	-5.33	1.45	1.52
1	C	3990	VAL	CA-C	-5.33	1.46	1.52
1	A	3780	LEU	CA-CB	-5.32	1.44	1.53
1	A	4985	LEU	CA-CB	-5.32	1.44	1.53
1	E	3887	PHE	CA-C	-5.32	1.46	1.52
1	E	4842	GLY	C-O	5.32	1.30	1.23
1	A	4195	PHE	CG-CD2	-5.32	1.27	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	3887	PHE	CA-C	-5.31	1.46	1.52
1	G	3802	ILE	N-CA	-5.31	1.39	1.46
1	C	4195	PHE	CG-CD2	-5.31	1.27	1.38
1	C	3979	SER	CA-C	-5.31	1.45	1.52
1	A	4205	TRP	C-O	-5.30	1.16	1.23
1	E	3990	VAL	CA-C	-5.30	1.46	1.52
1	A	3969	ILE	C-O	-5.30	1.15	1.23
1	C	3780	LEU	CA-CB	-5.30	1.44	1.53
1	E	4981	GLU	C-N	-5.30	1.26	1.33
1	G	4851	TYR	CE1-CZ	-5.30	1.25	1.38
1	E	4205	TRP	C-O	-5.29	1.16	1.23
1	A	4559	PHE	CG-CD1	-5.29	1.27	1.38
1	A	4153	HIS	C-O	-5.29	1.17	1.24
1	E	4559	PHE	CG-CD1	-5.29	1.27	1.38
1	G	5014	TYR	CG-CD1	-5.29	1.28	1.39
1	C	4963	ILE	CA-CB	-5.29	1.47	1.54
1	G	3999	MET	CA-C	-5.29	1.46	1.53
1	C	4178	LEU	C-O	-5.29	1.17	1.24
1	G	3990	VAL	CA-C	-5.28	1.45	1.52
1	C	4992	LEU	N-CA	-5.28	1.39	1.46
1	C	3969	ILE	C-O	-5.28	1.15	1.23
1	G	3937	TYR	CG-CD1	-5.28	1.28	1.39
1	A	4854	VAL	CA-C	-5.27	1.46	1.52
1	A	4201	ASN	C-O	-5.27	1.17	1.24
1	A	4992	LEU	N-CA	-5.26	1.39	1.46
1	G	3816	MET	CG-SD	-5.26	1.67	1.80
1	G	4177	TYR	CB-CG	-5.26	1.40	1.51
1	C	3779	VAL	CA-C	-5.26	1.46	1.52
1	G	3781	GLN	C-O	-5.26	1.17	1.24
1	A	4981	GLU	C-N	-5.26	1.26	1.33
1	C	4205	TRP	C-O	-5.25	1.16	1.23
1	C	3922	TYR	CE2-CZ	-5.25	1.25	1.38
1	E	1104	TRP	N-CA	-5.25	1.39	1.45
1	E	3780	LEU	CA-CB	-5.25	1.45	1.53
1	G	4233	LEU	CA-C	-5.25	1.45	1.52
1	A	3779	VAL	CA-C	-5.24	1.46	1.52
1	E	3779	VAL	CA-C	-5.24	1.46	1.52
1	E	4992	LEU	N-CA	-5.24	1.40	1.46
1	G	4234	PHE	CA-CB	-5.24	1.45	1.53
1	A	3922	TYR	CE2-CZ	-5.24	1.25	1.38
1	C	4983	HIS	CA-C	-5.24	1.45	1.52
1	C	4981	GLU	C-N	-5.23	1.26	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	4927	ILE	CA-C	-5.23	1.46	1.52
1	C	4153	HIS	CA-C	-5.23	1.46	1.52
1	C	4776	GLN	C-O	5.23	1.30	1.24
1	C	4932	ILE	C-O	5.23	1.29	1.24
1	E	4925	ILE	C-O	-5.22	1.19	1.24
1	C	4957	LYS	CA-C	-5.22	1.46	1.52
1	C	4201	ASN	C-O	-5.22	1.17	1.24
1	E	3922	TYR	CE2-CZ	-5.21	1.25	1.38
1	G	3977	GLN	CA-C	-5.21	1.45	1.52
1	C	4854	VAL	CA-C	-5.20	1.46	1.52
1	G	697	GLY	C-O	5.20	1.29	1.23
1	G	1076	ARG	CZ-NH2	-5.20	1.26	1.33
1	G	3922	TYR	CG-CD1	-5.20	1.28	1.39
1	C	4971	THR	C-O	-5.19	1.17	1.23
1	E	4983	HIS	CA-C	-5.19	1.45	1.52
1	G	3960	GLN	CA-C	-5.19	1.45	1.52
1	E	4962	GLY	C-N	-5.19	1.26	1.33
1	G	4714	ASN	C-O	-5.18	1.16	1.23
1	A	4983	HIS	CA-C	-5.18	1.45	1.52
1	A	4938	ASP	N-CA	-5.18	1.39	1.46
1	C	4932	ILE	N-CA	-5.18	1.40	1.46
1	A	4838	VAL	CA-C	-5.18	1.45	1.52
1	G	4992	LEU	N-CA	-5.17	1.39	1.46
1	G	4672	LYS	N-CA	-5.17	1.39	1.46
1	A	3887	PHE	CA-CB	-5.16	1.45	1.53
1	C	3887	PHE	CA-CB	-5.16	1.45	1.53
1	C	4938	ASP	N-CA	-5.16	1.39	1.46
1	E	3887	PHE	CA-CB	-5.16	1.45	1.53
1	A	4776	GLN	C-O	5.15	1.30	1.24
1	A	697	GLY	C-O	5.15	1.29	1.23
1	A	3770	LEU	C-O	-5.15	1.17	1.23
1	G	4987	ASN	N-CA	-5.15	1.39	1.46
1	A	1104	TRP	N-CA	-5.15	1.39	1.45
1	C	4985	LEU	CA-CB	-5.15	1.44	1.53
1	G	4854	VAL	N-CA	-5.15	1.39	1.46
1	C	4971	THR	CA-C	-5.14	1.47	1.53
1	E	697	GLY	C-O	5.14	1.29	1.23
1	E	4920	PHE	CA-CB	-5.14	1.44	1.53
1	G	4205	TRP	C-O	-5.14	1.15	1.23
1	G	4038	GLY	C-O	-5.14	1.16	1.23
1	G	4833	ASN	CA-CB	-5.14	1.46	1.53
1	E	3770	LEU	C-O	-5.14	1.17	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	4927	ILE	CA-C	-5.13	1.46	1.52
1	E	4838	VAL	CA-C	-5.13	1.45	1.52
1	C	4174	PHE	CG-CD2	-5.13	1.28	1.38
1	A	4983	HIS	CB-CG	-5.13	1.43	1.50
1	E	4957	LYS	CA-C	-5.13	1.46	1.52
1	E	4971	THR	C-O	-5.12	1.17	1.23
1	G	3723	MET	CA-C	-5.12	1.45	1.52
1	G	4177	TYR	C-O	-5.12	1.17	1.23
1	C	1076	ARG	CZ-NH2	-5.12	1.26	1.33
1	E	4985	LEU	CA-CB	-5.12	1.44	1.53
1	A	1076	ARG	CZ-NH2	-5.12	1.26	1.33
1	C	5019	TRP	C-N	-5.12	1.26	1.33
1	C	697	GLY	C-O	5.11	1.29	1.23
1	A	5019	TRP	C-N	-5.11	1.26	1.33
1	A	4174	PHE	CG-CD2	-5.10	1.28	1.38
1	G	202	MET	C-O	-5.10	1.17	1.24
1	G	3922	TYR	CE2-CZ	-5.10	1.26	1.38
1	G	4195	PHE	CG-CD2	-5.08	1.28	1.38
1	E	4667	PRO	N-CA	-5.08	1.40	1.47
1	A	4667	PRO	N-CA	-5.08	1.40	1.47
1	A	202	MET	C-O	-5.08	1.17	1.24
1	A	4957	LYS	CA-C	-5.08	1.46	1.52
1	E	4141	PHE	N-CA	-5.08	1.40	1.46
1	C	3770	LEU	CA-C	-5.08	1.47	1.53
1	E	4776	GLN	C-O	5.08	1.30	1.24
1	C	4962	GLY	C-N	-5.07	1.26	1.33
1	C	4983	HIS	CB-CG	-5.07	1.43	1.50
1	G	4174	PHE	CG-CD2	-5.07	1.28	1.38
1	G	4193	ILE	CA-C	-5.07	1.46	1.52
1	A	4962	GLY	C-N	-5.07	1.26	1.33
1	A	3979	SER	CA-C	-5.07	1.45	1.52
1	C	1104	TRP	N-CA	-5.07	1.40	1.45
1	E	4174	PHE	CG-CD2	-5.07	1.28	1.38
1	G	4920	PHE	CA-CB	-5.07	1.44	1.53
1	A	4141	PHE	N-CA	-5.06	1.40	1.46
1	E	219	VAL	N-CA	-5.06	1.40	1.46
1	A	4150	LEU	CA-C	-5.06	1.46	1.52
1	A	4971	THR	CA-C	-5.06	1.47	1.53
1	E	5028	PHE	C-O	5.06	1.31	1.23
1	E	5019	TRP	C-N	-5.06	1.26	1.33
1	E	4012	LEU	N-CA	-5.05	1.39	1.46
1	G	5010	VAL	CA-C	-5.05	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	4198	SER	C-O	-5.05	1.17	1.23
1	A	4668	LEU	CA-CB	-5.05	1.45	1.53
1	A	4012	LEU	N-CA	-5.05	1.39	1.46
1	C	4141	PHE	N-CA	-5.05	1.40	1.46
1	E	1735	ILE	N-CA	5.04	1.52	1.46
1	C	202	MET	C-O	-5.04	1.17	1.24
1	C	5028	PHE	C-O	5.04	1.31	1.23
1	E	4983	HIS	CB-CG	-5.04	1.43	1.50
1	A	5032	TYR	CA-C	5.04	1.58	1.52
1	A	4932	ILE	N-CA	-5.04	1.40	1.46
1	A	4670	ILE	N-CA	-5.03	1.39	1.46
1	G	219	VAL	N-CA	-5.03	1.40	1.46
1	E	4932	ILE	N-CA	-5.03	1.40	1.46
1	E	4987	ASN	CG-OD1	5.03	1.33	1.23
1	G	4674	GLU	C-O	-5.03	1.17	1.24
1	E	4217	PHE	CG-CD1	-5.03	1.28	1.38
1	E	4668	LEU	CA-CB	-5.02	1.45	1.53
1	C	4668	LEU	CA-CB	-5.02	1.45	1.53
1	A	3919	THR	C-N	-5.01	1.27	1.33
1	A	5028	PHE	C-O	5.01	1.31	1.23
1	C	3770	LEU	C-O	-5.01	1.18	1.23
1	A	3785	ALA	C-O	-5.00	1.18	1.24

All (452) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	4083	ASP	CA-C-N	18.33	142.75	119.84
1	G	4083	ASP	C-N-CA	18.33	142.75	119.84
1	E	915	GLU	CA-C-N	18.30	142.71	119.84
1	E	915	GLU	C-N-CA	18.30	142.71	119.84
1	G	915	GLU	CA-C-N	18.28	142.69	119.84
1	G	915	GLU	C-N-CA	18.28	142.69	119.84
1	C	915	GLU	CA-C-N	18.18	142.56	119.84
1	C	915	GLU	C-N-CA	18.18	142.56	119.84
1	A	915	GLU	CA-C-N	18.18	142.56	119.84
1	A	915	GLU	C-N-CA	18.18	142.56	119.84
1	C	4083	ASP	CA-C-N	18.14	142.51	119.84
1	C	4083	ASP	C-N-CA	18.14	142.51	119.84
1	E	4083	ASP	CA-C-N	18.11	142.48	119.84
1	E	4083	ASP	C-N-CA	18.11	142.48	119.84
1	A	4083	ASP	CA-C-N	18.09	142.45	119.84
1	A	4083	ASP	C-N-CA	18.09	142.45	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	864	PRO	CA-C-N	13.44	136.64	119.84
1	G	864	PRO	C-N-CA	13.44	136.64	119.84
1	C	864	PRO	CA-C-N	13.43	136.62	119.84
1	C	864	PRO	C-N-CA	13.43	136.62	119.84
1	A	864	PRO	CA-C-N	13.41	136.61	119.84
1	A	864	PRO	C-N-CA	13.41	136.61	119.84
1	E	864	PRO	CA-C-N	13.37	136.55	119.84
1	E	864	PRO	C-N-CA	13.37	136.55	119.84
1	G	4177	TYR	N-CA-C	11.65	124.42	110.44
1	C	4177	TYR	N-CA-C	10.66	124.52	110.88
1	A	4177	TYR	N-CA-C	10.50	124.32	110.88
1	E	4177	TYR	N-CA-C	10.48	124.29	110.88
1	C	5019	TRP	CB-CA-C	-9.61	97.54	111.95
1	E	5019	TRP	CB-CA-C	-9.58	97.58	111.95
1	G	5019	TRP	N-CA-C	9.53	124.53	111.39
1	A	5019	TRP	CB-CA-C	-9.51	97.68	111.95
1	E	3903	LEU	CD1-CG-CD2	-9.28	90.38	110.80
1	A	3903	LEU	CD1-CG-CD2	-9.21	90.53	110.80
1	C	3903	LEU	CD1-CG-CD2	-9.18	90.60	110.80
1	C	5019	TRP	N-CA-C	8.77	123.22	111.30
1	A	5019	TRP	N-CA-C	8.74	123.19	111.30
1	E	5019	TRP	N-CA-C	8.73	123.18	111.30
1	G	5019	TRP	CB-CA-C	-8.72	99.51	111.89
1	G	3903	LEU	CD1-CG-CD2	-8.43	92.25	110.80
1	A	1632	ASP	CA-C-N	8.17	128.10	119.85
1	A	1632	ASP	C-N-CA	8.17	128.10	119.85
1	E	1632	ASP	CA-C-N	8.05	127.98	119.85
1	E	1632	ASP	C-N-CA	8.05	127.98	119.85
1	C	803	LEU	CA-C-N	7.96	125.47	119.66
1	C	803	LEU	C-N-CA	7.96	125.47	119.66
1	G	803	LEU	CA-C-N	7.96	125.47	119.66
1	G	803	LEU	C-N-CA	7.96	125.47	119.66
1	A	803	LEU	CA-C-N	7.92	125.44	119.66
1	A	803	LEU	C-N-CA	7.92	125.44	119.66
1	G	1632	ASP	CA-C-N	7.87	127.80	119.85
1	G	1632	ASP	C-N-CA	7.87	127.80	119.85
1	C	4184	MET	CB-CG-SD	-7.86	89.14	112.70
1	E	803	LEU	CA-C-N	7.85	125.39	119.66
1	E	803	LEU	C-N-CA	7.85	125.39	119.66
1	A	808	TYR	N-CA-CB	7.83	123.72	110.49
1	E	808	TYR	N-CA-CB	7.82	123.71	110.49
1	G	808	TYR	N-CA-CB	7.79	123.66	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	808	TYR	N-CA-CB	7.79	123.65	110.49
1	A	4184	MET	CB-CG-SD	-7.78	89.37	112.70
1	G	4184	MET	CB-CG-SD	-7.74	89.48	112.70
1	C	1632	ASP	CA-C-N	7.72	127.65	119.85
1	C	1632	ASP	C-N-CA	7.72	127.65	119.85
1	C	1248	VAL	CA-C-N	7.72	125.22	119.66
1	C	1248	VAL	C-N-CA	7.72	125.22	119.66
1	E	3301	PRO	N-CA-CB	7.69	110.54	103.08
1	C	2711	PRO	N-CA-CB	7.65	110.50	103.08
1	A	2711	PRO	N-CA-CB	7.62	110.48	103.08
1	G	1248	VAL	CA-C-N	7.62	125.15	119.66
1	G	1248	VAL	C-N-CA	7.62	125.15	119.66
1	E	2711	PRO	N-CA-CB	7.62	110.47	103.08
1	C	3301	PRO	N-CA-CB	7.61	110.46	103.08
1	C	3567	PRO	N-CA-CB	7.58	111.56	103.52
1	A	3567	PRO	N-CA-CB	7.58	111.56	103.52
1	G	4986	ALA	N-CA-C	7.58	120.42	111.71
1	A	3301	PRO	N-CA-CB	7.56	110.42	103.08
1	A	4994	TYR	N-CA-C	-7.56	102.98	111.07
1	G	2711	PRO	N-CA-CB	7.55	110.41	103.08
1	E	3567	PRO	N-CA-CB	7.55	111.53	103.52
1	E	3664	THR	N-CA-CB	7.54	123.24	110.49
1	C	3302	PRO	N-CA-CB	7.54	110.39	103.08
1	E	3138	PRO	N-CA-CB	7.54	111.53	103.39
1	E	3302	PRO	N-CA-CB	7.54	110.39	103.08
1	A	1248	VAL	CA-C-N	7.54	125.09	119.66
1	A	1248	VAL	C-N-CA	7.54	125.09	119.66
1	A	3138	PRO	N-CA-CB	7.53	111.52	103.39
1	C	4994	TYR	N-CA-C	-7.52	103.02	111.07
1	G	3062	PRO	N-CA-CB	7.52	111.28	103.00
1	C	3138	PRO	N-CA-CB	7.52	111.51	103.39
1	A	3302	PRO	N-CA-CB	7.52	110.37	103.08
1	G	3301	PRO	N-CA-CB	7.51	110.37	103.08
1	E	4994	TYR	N-CA-C	-7.49	103.05	111.07
1	A	3664	THR	N-CA-CB	7.48	123.14	110.49
1	G	3302	PRO	N-CA-CB	7.46	110.31	103.08
1	C	3664	THR	N-CA-CB	7.43	123.05	110.49
1	G	3567	PRO	N-CA-CB	7.41	111.37	103.52
1	E	4184	MET	CB-CG-SD	-7.40	90.50	112.70
1	G	3282	PRO	N-CA-CB	7.34	110.56	103.51
1	E	1248	VAL	CA-C-N	7.33	124.94	119.66
1	E	1248	VAL	C-N-CA	7.33	124.94	119.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	1867	GLU	CA-C-N	7.25	128.90	119.84
1	E	1867	GLU	C-N-CA	7.25	128.90	119.84
1	E	1493	TYR	N-CA-CB	7.24	122.81	110.50
1	E	3841	VAL	CA-CB-CG1	7.19	122.62	110.40
1	C	3841	VAL	CA-CB-CG1	7.17	122.59	110.40
1	G	1867	GLU	CA-C-N	7.17	128.80	119.84
1	G	1867	GLU	C-N-CA	7.17	128.80	119.84
1	A	1493	TYR	N-CA-CB	7.16	122.68	110.50
1	G	3188	PRO	N-CA-CB	7.16	110.39	103.51
1	G	1493	TYR	N-CA-CB	7.15	122.66	110.50
1	C	1867	GLU	CA-C-N	7.15	128.77	119.84
1	C	1867	GLU	C-N-CA	7.15	128.77	119.84
1	A	3841	VAL	CA-CB-CG1	7.14	122.54	110.40
1	C	1493	TYR	N-CA-CB	7.14	122.64	110.50
1	A	1867	GLU	CA-C-N	7.11	128.73	119.84
1	A	1867	GLU	C-N-CA	7.11	128.73	119.84
1	A	2712	PRO	N-CA-CB	7.09	110.80	103.00
1	G	3275	PRO	N-CA-CB	7.07	110.67	103.25
1	C	2712	PRO	N-CA-CB	7.06	110.77	103.00
1	E	2712	PRO	N-CA-CB	7.05	110.75	103.00
1	G	2712	PRO	N-CA-CB	7.04	110.75	103.00
1	E	3951	PHE	N-CA-C	-7.01	106.63	114.62
1	E	3519	PRO	N-CA-CB	7.00	110.94	103.52
1	A	3951	PHE	N-CA-C	-6.99	106.65	114.62
1	C	3519	PRO	N-CA-CB	6.98	110.92	103.52
1	E	3297	PRO	N-CA-CB	6.97	111.00	103.33
1	A	3297	PRO	N-CA-CB	6.97	111.00	103.33
1	C	3951	PHE	N-CA-C	-6.97	106.67	114.62
1	C	3297	PRO	N-CA-CB	6.96	110.98	103.33
1	G	2701	PRO	N-CA-CB	6.95	110.55	103.25
1	E	2701	PRO	N-CA-CB	6.95	110.54	103.25
1	C	2701	PRO	N-CA-CB	6.95	110.54	103.25
1	C	3021	PRO	N-CA-CB	6.94	110.88	103.52
1	A	2701	PRO	N-CA-CB	6.93	110.53	103.25
1	A	3021	PRO	N-CA-CB	6.92	110.85	103.52
1	E	2631	PRO	N-CA-CB	6.92	110.85	103.52
1	E	3021	PRO	N-CA-CB	6.90	110.84	103.52
1	G	2631	PRO	N-CA-CB	6.88	110.81	103.52
1	E	3289	PRO	N-CA-CB	6.88	110.81	103.39
1	E	4180	ARG	N-CA-C	6.87	119.44	107.49
1	A	2631	PRO	N-CA-CB	6.86	110.80	103.52
1	G	4231	MET	CG-SD-CE	6.86	116.00	100.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	2631	PRO	N-CA-CB	6.85	110.78	103.52
1	G	3841	VAL	CA-CB-CG1	6.84	122.03	110.40
1	G	3729	MET	CG-SD-CE	-6.84	85.86	100.90
1	A	3289	PRO	N-CA-CB	6.83	110.77	103.39
1	C	3289	PRO	N-CA-CB	6.83	110.77	103.39
1	A	4180	ARG	N-CA-C	6.80	119.33	107.49
1	A	3188	PRO	N-CA-CB	6.80	110.72	103.52
1	E	3188	PRO	N-CA-CB	6.79	110.72	103.52
1	C	4180	ARG	N-CA-C	6.79	119.30	107.49
1	C	3188	PRO	N-CA-CB	6.77	110.70	103.52
1	C	3527	PRO	N-CA-CB	6.76	110.44	103.00
1	G	3519	PRO	N-CA-CB	6.76	110.69	103.52
1	A	3527	PRO	N-CA-CB	6.75	110.43	103.00
1	E	3527	PRO	N-CA-CB	6.75	110.42	103.00
1	G	3527	PRO	N-CA-CB	6.75	110.42	103.00
1	C	1293	LEU	CA-C-N	6.72	126.48	119.76
1	C	1293	LEU	C-N-CA	6.72	126.48	119.76
1	A	3360	PRO	N-CA-CB	6.72	110.64	103.52
1	E	3360	PRO	N-CA-CB	6.71	110.63	103.52
1	G	3297	PRO	N-CA-CB	6.71	110.63	103.52
1	C	3360	PRO	N-CA-CB	6.70	110.62	103.52
1	A	3519	PRO	N-CA-CB	6.68	110.92	103.44
1	G	5010	VAL	CG1-CB-CG2	-6.63	96.21	110.80
1	A	3275	PRO	N-CA-CB	6.63	110.87	103.44
1	A	4190	ILE	N-CA-C	6.63	117.01	108.12
1	G	3289	PRO	N-CA-CB	6.63	110.55	103.39
1	E	3410	PRO	N-CA-CB	6.62	110.54	103.52
1	G	3138	PRO	N-CA-CB	6.62	110.54	103.39
1	E	3282	PRO	N-CA-CB	6.62	110.54	103.52
1	C	3282	PRO	N-CA-CB	6.62	110.53	103.52
1	G	3303	PRO	N-CA-CB	6.61	110.53	103.52
1	A	3282	PRO	N-CA-CB	6.60	110.52	103.52
1	G	3410	PRO	N-CA-CB	6.60	110.52	103.52
1	E	4190	ILE	N-CA-C	6.60	116.96	108.12
1	E	3351	PRO	N-CA-CB	6.59	110.51	103.39
1	A	3410	PRO	N-CA-CB	6.59	110.50	103.52
1	G	3021	PRO	N-CA-CB	6.58	110.50	103.52
1	G	3427	PRO	N-CA-CB	6.58	110.23	103.00
1	E	3275	PRO	N-CA-CB	6.57	110.80	103.44
1	A	3085	PRO	N-CA-CB	6.57	110.15	103.25
1	C	3275	PRO	N-CA-CB	6.55	110.78	103.44
1	E	3085	PRO	N-CA-CB	6.55	110.13	103.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	3085	PRO	N-CA-CB	6.54	110.12	103.25
1	C	3410	PRO	N-CA-CB	6.54	110.45	103.52
1	G	2640	PRO	N-CA-CB	6.53	110.76	103.44
1	A	1293	LEU	CA-C-N	6.53	126.44	119.85
1	A	1293	LEU	C-N-CA	6.53	126.44	119.85
1	C	2640	PRO	N-CA-CB	6.53	110.75	103.44
1	A	2640	PRO	N-CA-CB	6.52	110.74	103.44
1	A	3427	PRO	N-CA-CB	6.51	110.17	103.00
1	G	3664	THR	N-CA-C	6.51	124.67	110.80
1	A	3351	PRO	N-CA-CB	6.50	110.41	103.39
1	E	4178	LEU	CA-C-N	6.50	126.52	120.34
1	E	4178	LEU	C-N-CA	6.50	126.52	120.34
1	A	4178	LEU	CA-C-N	6.50	126.51	120.34
1	A	4178	LEU	C-N-CA	6.50	126.51	120.34
1	C	3351	PRO	N-CA-CB	6.49	110.40	103.39
1	G	3294	PRO	N-CA-CB	6.49	110.14	103.00
1	E	2640	PRO	N-CA-CB	6.48	110.70	103.44
1	G	1293	LEU	CA-C-N	6.48	126.39	119.85
1	G	1293	LEU	C-N-CA	6.48	126.39	119.85
1	C	4178	LEU	CA-C-N	6.48	126.49	120.34
1	C	4178	LEU	C-N-CA	6.48	126.49	120.34
1	C	4190	ILE	N-CA-C	6.48	116.80	108.12
1	C	3294	PRO	N-CA-CB	6.47	110.12	103.00
1	A	3294	PRO	N-CA-CB	6.47	110.12	103.00
1	C	3427	PRO	N-CA-CB	6.47	110.11	103.00
1	E	3427	PRO	N-CA-CB	6.46	110.11	103.00
1	E	1293	LEU	CA-C-N	6.46	126.37	119.85
1	E	1293	LEU	C-N-CA	6.46	126.37	119.85
1	C	3729	MET	CG-SD-CE	-6.44	86.72	100.90
1	E	3294	PRO	N-CA-CB	6.43	110.07	103.00
1	E	3729	MET	CG-SD-CE	-6.42	86.77	100.90
1	A	3729	MET	CG-SD-CE	-6.39	86.83	100.90
1	A	1736	VAL	CA-C-N	6.39	126.36	120.03
1	A	1736	VAL	C-N-CA	6.39	126.36	120.03
1	G	461	HIS	N-CA-C	6.39	118.24	111.28
1	G	3351	PRO	N-CA-CB	6.34	110.24	103.52
1	A	3303	PRO	N-CA-CB	6.33	110.29	103.33
1	E	3303	PRO	N-CA-CB	6.32	110.28	103.33
1	G	2361	PRO	N-CA-C	6.32	122.05	113.84
1	G	1736	VAL	CA-C-N	6.31	126.28	120.03
1	G	1736	VAL	C-N-CA	6.31	126.28	120.03
1	C	4819	GLY	O-C-N	6.31	125.38	121.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	4819	GLY	O-C-N	6.29	125.37	121.85
1	C	3303	PRO	N-CA-CB	6.29	110.24	103.33
1	C	2361	PRO	N-CA-C	6.28	122.01	113.84
1	A	2361	PRO	N-CA-C	6.28	122.00	113.84
1	E	1744	ALA	N-CA-C	6.27	117.81	110.97
1	G	1495	VAL	N-CA-C	6.26	117.73	108.65
1	C	1495	VAL	N-CA-C	6.26	117.73	108.65
1	G	1744	ALA	N-CA-C	6.25	117.79	110.97
1	A	1495	VAL	N-CA-C	6.25	117.70	108.65
1	A	1744	ALA	N-CA-C	6.24	117.77	110.97
1	C	1736	VAL	CA-C-N	6.19	126.16	120.03
1	C	1736	VAL	C-N-CA	6.19	126.16	120.03
1	G	3085	PRO	N-CA-CB	6.18	109.74	103.25
1	E	1495	VAL	N-CA-C	6.18	117.61	108.65
1	G	4013	LEU	CD1-CG-CD2	-6.17	97.22	110.80
1	C	1744	ALA	N-CA-C	6.16	117.69	110.97
1	A	4231	MET	CG-SD-CE	6.16	114.46	100.90
1	A	4819	GLY	O-C-N	6.15	125.29	121.85
1	G	3208	PRO	N-CA-CB	6.14	110.03	103.52
1	E	4170	ILE	CB-CA-C	-6.14	104.01	112.24
1	E	2361	PRO	N-CA-C	6.13	121.81	113.84
1	G	4190	ILE	N-CA-C	6.13	116.33	108.12
1	C	1110	ARG	CA-C-N	6.11	126.00	119.28
1	C	1110	ARG	C-N-CA	6.11	126.00	119.28
1	C	4170	ILE	CB-CA-C	-6.11	104.05	112.24
1	G	3360	PRO	N-CA-CB	6.11	110.28	103.44
1	A	4170	ILE	CB-CA-C	-6.08	104.09	112.24
1	C	704	GLY	CA-C-O	-6.08	118.03	122.23
1	C	4231	MET	CG-SD-CE	6.07	114.25	100.90
1	A	2616	PRO	N-CA-CB	6.06	109.94	103.39
1	E	704	GLY	CA-C-O	-6.05	118.06	122.23
1	A	2658	PRO	N-CA-CB	6.04	109.92	103.52
1	G	2658	PRO	N-CA-CB	6.03	109.91	103.52
1	E	2658	PRO	N-CA-CB	6.02	109.90	103.52
1	E	1736	VAL	CA-C-N	6.02	125.99	120.03
1	E	1736	VAL	C-N-CA	6.02	125.99	120.03
1	G	3698	LEU	CD1-CG-CD2	-6.01	97.57	110.80
1	G	2616	PRO	N-CA-CB	6.01	109.88	103.39
1	E	2616	PRO	N-CA-CB	6.01	109.88	103.39
1	A	4666	VAL	CB-CA-C	-6.00	107.99	114.35
1	E	4231	MET	CG-SD-CE	6.00	114.10	100.90
1	C	2658	PRO	N-CA-CB	5.99	109.87	103.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	2616	PRO	N-CA-CB	5.99	109.86	103.39
1	C	4910	GLU	N-CA-C	5.99	118.58	111.33
1	A	704	GLY	CA-C-O	-5.97	118.11	122.23
1	C	4666	VAL	CB-CA-C	-5.96	108.03	114.35
1	E	3208	PRO	N-CA-CB	5.96	109.83	103.52
1	C	3208	PRO	N-CA-CB	5.95	109.83	103.52
1	A	4181	ILE	N-CA-C	5.95	116.08	108.82
1	C	3062	PRO	N-CA-CB	5.94	109.53	103.00
1	E	4910	GLU	N-CA-C	5.94	118.51	111.33
1	A	3208	PRO	N-CA-CB	5.94	109.81	103.52
1	A	4910	GLU	N-CA-C	5.93	118.51	111.33
1	E	3062	PRO	N-CA-CB	5.93	109.52	103.00
1	E	4181	ILE	N-CA-C	5.91	116.03	108.82
1	G	59	PRO	CA-C-N	5.91	125.81	119.85
1	G	59	PRO	C-N-CA	5.91	125.81	119.85
1	A	3062	PRO	N-CA-CB	5.90	109.49	103.00
1	E	1110	ARG	CA-C-N	5.90	125.77	119.28
1	E	1110	ARG	C-N-CA	5.90	125.77	119.28
1	E	648	ILE	N-CA-C	5.90	117.02	109.30
1	E	4666	VAL	CB-CA-C	-5.89	108.10	114.35
1	A	648	ILE	N-CA-C	5.88	117.01	109.30
1	E	461	HIS	N-CA-C	5.88	117.69	111.28
1	A	59	PRO	CA-C-N	5.87	125.78	119.85
1	A	59	PRO	C-N-CA	5.87	125.78	119.85
1	G	3915	ILE	N-CA-C	-5.87	106.56	113.42
1	A	3794	VAL	CB-CA-C	-5.86	104.23	112.14
1	E	4986	ALA	N-CA-C	5.85	119.68	112.54
1	G	1110	ARG	CA-C-N	5.84	125.70	119.28
1	G	1110	ARG	C-N-CA	5.84	125.70	119.28
1	G	4180	ARG	CD-NE-CZ	-5.82	116.25	124.40
1	G	648	ILE	N-CA-C	5.81	116.91	109.30
1	C	648	ILE	N-CA-C	5.81	116.91	109.30
1	E	3794	VAL	CB-CA-C	-5.80	104.30	112.14
1	C	4181	ILE	N-CA-C	5.80	115.90	108.82
1	G	672	VAL	CA-C-N	5.80	125.49	119.05
1	G	672	VAL	C-N-CA	5.80	125.49	119.05
1	G	3841	VAL	N-CA-C	-5.78	99.30	108.90
1	A	461	HIS	N-CA-C	5.78	117.58	111.28
1	C	59	PRO	CA-C-N	5.77	125.68	119.85
1	C	59	PRO	C-N-CA	5.77	125.68	119.85
1	E	59	PRO	CA-C-N	5.77	125.68	119.85
1	E	59	PRO	C-N-CA	5.77	125.68	119.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	461	HIS	N-CA-C	5.75	117.55	111.28
1	A	4986	ALA	N-CA-C	5.74	119.55	112.54
1	G	4157	ASP	CA-C-N	5.74	125.60	119.28
1	G	4157	ASP	C-N-CA	5.74	125.60	119.28
1	G	704	GLY	CA-C-O	-5.72	118.28	122.23
1	C	3794	VAL	CB-CA-C	-5.70	104.44	112.14
1	E	913	LEU	CA-C-N	5.68	125.63	119.78
1	E	913	LEU	C-N-CA	5.68	125.63	119.78
1	C	4986	ALA	N-CA-C	5.65	119.43	112.54
1	A	1110	ARG	CA-C-N	5.63	125.47	119.28
1	A	1110	ARG	C-N-CA	5.63	125.47	119.28
1	E	1275	ARG	N-CA-C	5.62	118.64	108.69
1	C	5010	VAL	CG1-CB-CG2	-5.62	98.44	110.80
1	G	1275	ARG	N-CA-C	5.61	118.63	108.69
1	C	1275	ARG	NE-CZ-NH2	5.61	124.25	119.20
1	G	2567	PRO	N-CA-CB	5.61	109.17	103.00
1	G	1275	ARG	NE-CZ-NH2	5.60	124.24	119.20
1	A	2567	PRO	N-CA-CB	5.60	109.16	103.00
1	A	1275	ARG	NE-CZ-NH2	5.59	124.23	119.20
1	A	1275	ARG	N-CA-C	5.59	118.58	108.69
1	E	1275	ARG	NE-CZ-NH2	5.58	124.22	119.20
1	C	2567	PRO	N-CA-CB	5.58	109.14	103.00
1	E	5010	VAL	CG1-CB-CG2	-5.57	98.55	110.80
1	C	1275	ARG	N-CA-C	5.56	118.54	108.69
1	A	672	VAL	CA-C-N	5.56	125.22	119.05
1	A	672	VAL	C-N-CA	5.56	125.22	119.05
1	A	5010	VAL	CG1-CB-CG2	-5.55	98.59	110.80
1	E	2567	PRO	N-CA-CB	5.55	109.10	103.00
1	C	672	VAL	CA-C-N	5.54	125.20	119.05
1	C	672	VAL	C-N-CA	5.54	125.20	119.05
1	C	3841	VAL	N-CA-CB	-5.54	103.14	112.44
1	A	904	HIS	CA-C-N	5.53	125.36	119.28
1	A	904	HIS	C-N-CA	5.53	125.36	119.28
1	C	904	HIS	CA-C-N	5.53	125.36	119.28
1	C	904	HIS	C-N-CA	5.53	125.36	119.28
1	G	5017	ARG	CG-CD-NE	-5.52	99.85	112.00
1	E	863	LEU	CA-C-N	5.51	126.06	120.38
1	E	863	LEU	C-N-CA	5.51	126.06	120.38
1	C	4013	LEU	CD1-CG-CD2	-5.51	98.69	110.80
1	E	3841	VAL	N-CA-CB	-5.50	103.20	112.44
1	E	4030	LEU	CD1-CG-CD2	-5.48	98.74	110.80
1	A	3841	VAL	N-CA-CB	-5.48	103.23	112.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	904	HIS	CA-C-N	5.48	125.31	119.28
1	E	904	HIS	C-N-CA	5.48	125.31	119.28
1	E	672	VAL	CA-C-N	5.47	125.13	119.05
1	E	672	VAL	C-N-CA	5.47	125.13	119.05
1	G	863	LEU	CA-C-N	5.46	126.00	120.38
1	G	863	LEU	C-N-CA	5.46	126.00	120.38
1	A	2168	VAL	CG1-CB-CG2	5.44	122.77	110.80
1	G	2168	VAL	CG1-CB-CG2	5.42	122.73	110.80
1	C	4925	ILE	N-CA-C	5.42	116.19	110.72
1	C	4030	LEU	CD1-CG-CD2	-5.41	98.89	110.80
1	E	4178	LEU	CA-C-O	5.41	126.27	120.32
1	G	913	LEU	CA-C-N	5.41	125.35	119.78
1	G	913	LEU	C-N-CA	5.41	125.35	119.78
1	E	4013	LEU	CD1-CG-CD2	-5.40	98.92	110.80
1	G	904	HIS	CA-C-N	5.40	125.22	119.28
1	G	904	HIS	C-N-CA	5.40	125.22	119.28
1	A	913	LEU	CA-C-N	5.39	125.33	119.78
1	A	913	LEU	C-N-CA	5.39	125.33	119.78
1	E	2168	VAL	CG1-CB-CG2	5.39	122.65	110.80
1	C	4178	LEU	CA-C-O	5.38	126.24	120.32
1	G	2202	GLY	N-CA-C	-5.38	107.82	115.30
1	C	2168	VAL	CG1-CB-CG2	5.38	122.64	110.80
1	A	4178	LEU	CA-C-O	5.37	126.22	120.32
1	C	863	LEU	CA-C-N	5.36	125.90	120.38
1	C	863	LEU	C-N-CA	5.36	125.90	120.38
1	E	2202	GLY	N-CA-C	-5.36	107.86	115.30
1	A	2473	PRO	N-CA-CB	5.35	109.17	103.39
1	G	2473	PRO	N-CA-CB	5.35	109.17	103.39
1	A	4030	LEU	CD1-CG-CD2	-5.33	99.08	110.80
1	C	2473	PRO	N-CA-CB	5.32	109.14	103.39
1	G	4971	THR	OG1-CB-CG2	5.32	119.94	109.30
1	C	2202	GLY	N-CA-C	-5.31	107.91	115.30
1	A	2202	GLY	N-CA-C	-5.31	107.92	115.30
1	A	4184	MET	CB-CA-C	-5.31	104.16	112.12
1	A	4988	TYR	CE1-CZ-OH	5.30	135.81	119.90
1	A	863	LEU	CA-C-N	5.29	125.83	120.38
1	A	863	LEU	C-N-CA	5.29	125.83	120.38
1	E	2473	PRO	N-CA-CB	5.29	109.10	103.39
1	G	4184	MET	CB-CA-C	-5.28	104.20	112.12
1	C	4988	TYR	CE1-CZ-OH	5.28	135.74	119.90
1	E	4988	TYR	CE1-CZ-OH	5.28	135.74	119.90
1	A	4925	ILE	N-CA-C	5.27	116.05	110.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	8	SER	CA-C-N	5.26	125.20	119.78
2	B	8	SER	C-N-CA	5.26	125.20	119.78
1	A	203	ASN	CA-C-N	5.25	125.19	119.78
1	A	203	ASN	C-N-CA	5.25	125.19	119.78
1	C	4184	MET	CB-CA-C	-5.24	104.26	112.12
1	C	4957	LYS	N-CA-C	5.24	116.81	108.79
2	F	8	SER	CA-C-N	5.24	125.18	119.78
2	F	8	SER	C-N-CA	5.24	125.18	119.78
1	A	4013	LEU	CD1-CG-CD2	-5.24	99.28	110.80
2	D	8	SER	CA-C-N	5.23	125.17	119.78
2	D	8	SER	C-N-CA	5.23	125.17	119.78
1	A	3886	ARG	CD-NE-CZ	-5.22	117.09	124.40
1	A	1931	LEU	CA-C-N	5.22	125.13	119.85
1	A	1931	LEU	C-N-CA	5.22	125.13	119.85
1	E	3886	ARG	CD-NE-CZ	-5.22	117.09	124.40
1	C	3886	ARG	CD-NE-CZ	-5.21	117.10	124.40
1	G	4984	ASN	CA-C-O	-5.21	113.06	120.51
1	E	4963	ILE	CA-CB-CG2	-5.20	101.66	110.50
1	E	4184	MET	CB-CA-C	-5.19	104.33	112.12
1	E	2495	VAL	CB-CA-C	-5.19	107.20	114.00
1	E	203	ASN	CA-C-N	5.17	125.11	119.78
1	E	203	ASN	C-N-CA	5.17	125.11	119.78
1	C	5017	ARG	CG-CD-NE	-5.17	100.63	112.00
1	G	1931	LEU	CA-C-N	5.16	125.06	119.85
1	G	1931	LEU	C-N-CA	5.16	125.06	119.85
1	G	4834	GLY	N-CA-C	5.16	119.37	112.77
1	E	5017	ARG	CG-CD-NE	-5.16	100.66	112.00
1	A	2495	VAL	CB-CA-C	-5.15	107.25	114.00
1	C	2495	VAL	CB-CA-C	-5.14	107.26	114.00
1	A	4963	ILE	CA-CB-CG2	-5.13	101.78	110.50
1	C	203	ASN	CA-C-N	5.13	125.06	119.78
1	C	203	ASN	C-N-CA	5.13	125.06	119.78
1	A	3835	LEU	CD1-CG-CD2	-5.12	99.53	110.80
1	G	4170	ILE	CB-CA-C	-5.12	105.38	112.24
1	A	698	GLY	N-CA-C	5.12	125.31	113.18
1	G	2495	VAL	CB-CA-C	-5.12	107.30	114.00
1	C	4963	ILE	CA-CB-CG2	-5.10	101.84	110.50
1	G	3805	LEU	CD1-CG-CD2	-5.07	99.64	110.80
1	G	4231	MET	CB-CG-SD	-5.07	97.49	112.70
1	C	4926	VAL	CB-CA-C	-5.06	104.51	111.65
1	G	3835	LEU	CD1-CG-CD2	-5.06	99.68	110.80
1	E	698	GLY	N-CA-C	5.05	125.15	113.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	4178	LEU	CA-C-N	5.04	126.22	120.53
1	G	4178	LEU	C-N-CA	5.04	126.22	120.53
1	G	4926	VAL	CA-C-O	-5.04	115.18	120.57
1	G	1669	LEU	CD1-CG-CD2	-5.03	99.74	110.80
1	C	1931	LEU	CA-C-N	5.03	124.93	119.85
1	C	1931	LEU	C-N-CA	5.03	124.93	119.85
1	C	698	GLY	N-CA-C	5.02	125.09	113.18
1	G	4666	VAL	O-C-N	5.02	123.63	120.42
1	G	3966	THR	CA-C-O	-5.02	115.53	120.70
1	C	913	LEU	CA-C-N	5.01	124.94	119.78
1	C	913	LEU	C-N-CA	5.01	124.94	119.78
1	G	4963	ILE	CA-CB-CG2	-5.01	101.98	110.50
1	G	698	GLY	N-CA-C	5.01	125.05	113.18
1	A	4157	ASP	CA-C-N	5.00	124.78	119.28
1	A	4157	ASP	C-N-CA	5.00	124.78	119.28
1	E	3666	ASP	N-CA-C	-5.00	107.13	113.18

There are no chirality outliers.

All (80) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1464	PHE	Mainchain,Peptide
1	A	1465	ASP	Peptide
1	A	1588	ALA	Mainchain,Peptide
1	A	1744	ALA	Mainchain,Peptide
1	A	1828	ASP	Mainchain,Peptide
1	A	1867	GLU	Peptide
1	A	2361	PRO	Mainchain,Peptide
1	A	3663	LEU	Mainchain,Peptide
1	A	697	GLY	Mainchain,Peptide
1	A	807	GLY	Mainchain,Peptide
1	A	841	GLY	Mainchain,Peptide
1	C	1464	PHE	Mainchain,Peptide
1	C	1465	ASP	Peptide
1	C	1588	ALA	Mainchain,Peptide
1	C	1744	ALA	Mainchain,Peptide
1	C	1828	ASP	Mainchain,Peptide
1	C	1867	GLU	Peptide
1	C	2361	PRO	Mainchain,Peptide
1	C	3663	LEU	Mainchain,Peptide
1	C	697	GLY	Mainchain,Peptide
1	C	807	GLY	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
1	C	841	GLY	Mainchain,Peptide
1	E	1464	PHE	Mainchain,Peptide
1	E	1465	ASP	Peptide
1	E	1588	ALA	Mainchain,Peptide
1	E	1744	ALA	Mainchain,Peptide
1	E	1828	ASP	Mainchain,Peptide
1	E	1867	GLU	Peptide
1	E	2361	PRO	Mainchain,Peptide
1	E	3663	LEU	Mainchain,Peptide
1	E	697	GLY	Mainchain,Peptide
1	E	807	GLY	Mainchain,Peptide
1	E	841	GLY	Mainchain,Peptide
1	G	1464	PHE	Mainchain,Peptide
1	G	1465	ASP	Peptide
1	G	1588	ALA	Mainchain,Peptide
1	G	1744	ALA	Mainchain,Peptide
1	G	1828	ASP	Mainchain,Peptide
1	G	1867	GLU	Peptide
1	G	2361	PRO	Mainchain,Peptide
1	G	3663	LEU	Mainchain,Peptide
1	G	697	GLY	Mainchain,Peptide
1	G	807	GLY	Mainchain,Peptide
1	G	841	GLY	Mainchain,Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	26917	0	24461	826	0
1	C	26917	0	24461	810	0
1	E	26917	0	24461	812	0
1	G	26917	0	24461	788	0
2	B	832	0	831	34	0
2	D	832	0	831	35	0
2	F	832	0	831	33	0
2	H	832	0	831	28	0
3	A	1	0	0	0	0
3	C	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	E	1	0	0	0	0
3	G	1	0	0	0	0
All	All	111000	0	101168	3221	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 15.

All (3221) 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:G:1782:PHE:O	2:H:82:TYR:OH	1.75	1.03
1:A:1782:PHE:O	2:B:82:TYR:OH	1.76	1.03
1:A:4888:TYR:CD1	1:G:4914:VAL:HG23	1.95	1.02
1:C:1782:PHE:O	2:D:82:TYR:OH	1.78	1.01
1:E:1782:PHE:O	2:F:82:TYR:OH	1.77	1.00
1:E:4934:GLY:HA3	1:G:4937:ILE:HG12	1.44	1.00
1:G:3936:TYR:O	1:G:3940:LYS:NZ	1.99	0.95
1:A:4914:VAL:HG23	1:C:4888:TYR:CD1	2.02	0.95
1:C:4914:VAL:HG23	1:E:4888:TYR:CD1	2.03	0.94
1:A:3936:TYR:O	1:A:3940:LYS:NZ	2.03	0.92
1:C:3936:TYR:O	1:C:3940:LYS:NZ	2.03	0.92
1:C:4865:LYS:NZ	1:C:4876:CYS:SG	2.44	0.91
1:E:3936:TYR:O	1:E:3940:LYS:NZ	2.03	0.91
1:A:4865:LYS:NZ	1:A:4876:CYS:SG	2.45	0.90
1:E:4914:VAL:HG23	1:G:4888:TYR:CD1	2.07	0.89
1:A:2452:ARG:NH1	1:G:174:VAL:O	2.05	0.89
1:E:174:VAL:O	1:G:2452:ARG:NH1	2.06	0.88
1:E:4865:LYS:NZ	1:E:4876:CYS:SG	2.45	0.88
1:A:174:VAL:O	1:C:2452:ARG:NH1	2.07	0.87
1:C:174:VAL:O	1:E:2452:ARG:NH1	2.07	0.87
1:A:1708:ARG:NH1	1:A:1836:PHE:O	2.08	0.87
1:G:1708:ARG:NH1	1:G:1836:PHE:O	2.08	0.87
1:A:2347:GLU:OE2	1:A:3852:LYS:HE3	1.74	0.87
1:E:1243:PRO:HD2	1:E:1458:HIS:HB3	1.56	0.87
1:E:1708:ARG:NH1	1:E:1836:PHE:O	2.07	0.86
1:C:1708:ARG:NH1	1:C:1836:PHE:O	2.08	0.86
1:C:683:ARG:NH1	1:C:705:ASN:O	2.09	0.86
1:A:4938:ASP:OD2	1:C:4940:PHE:HB3	1.76	0.86
1:A:277:GLY:HA2	1:A:317:ARG:HH12	1.40	0.85
1:A:683:ARG:NH1	1:A:705:ASN:O	2.10	0.85
1:C:277:GLY:HA2	1:C:317:ARG:HH12	1.40	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:277:GLY:HA2	1:E:317:ARG:HH12	1.40	0.85
1:E:683:ARG:NH1	1:E:705:ASN:O	2.09	0.85
1:C:4938:ASP:OD2	1:E:4940:PHE:HB3	1.76	0.85
1:A:2347:GLU:OE2	1:A:3852:LYS:CE	2.25	0.85
1:G:1610:ASN:ND2	1:G:1652:GLU:OE2	2.09	0.85
1:G:277:GLY:HA2	1:G:317:ARG:HH12	1.40	0.84
1:G:683:ARG:NH1	1:G:705:ASN:O	2.09	0.84
1:E:1727:ARG:NH1	1:E:1851:MET:O	2.11	0.84
1:C:1610:ASN:ND2	1:C:1652:GLU:OE2	2.09	0.84
1:G:1727:ARG:NH1	1:G:1851:MET:O	2.10	0.84
1:A:1727:ARG:NH1	1:A:1851:MET:O	2.11	0.84
1:G:4865:LYS:NZ	1:G:4876:CYS:SG	2.52	0.83
1:E:495:ASN:HB3	1:E:553:ARG:HH22	1.43	0.83
1:E:1610:ASN:ND2	1:E:1652:GLU:OE2	2.11	0.83
1:G:495:ASN:HB3	1:G:553:ARG:HH22	1.43	0.83
1:C:1727:ARG:NH1	1:C:1851:MET:O	2.11	0.83
1:E:4049:VAL:HG21	1:E:4159:ARG:HD3	1.61	0.83
1:A:4934:GLY:HA3	1:C:4937:ILE:HG12	1.58	0.82
1:A:2341:VAL:HG13	1:A:2342:ASN:H	1.45	0.82
1:C:2341:VAL:HG13	1:C:2342:ASN:H	1.45	0.82
1:A:1610:ASN:ND2	1:A:1652:GLU:OE2	2.12	0.82
1:A:4049:VAL:HG21	1:A:4159:ARG:HD3	1.62	0.82
1:A:3969:ILE:HD11	1:A:3980:LEU:HD13	1.62	0.82
1:A:495:ASN:HB3	1:A:553:ARG:HH22	1.43	0.82
1:C:4049:VAL:HG21	1:C:4159:ARG:HD3	1.61	0.82
1:C:3969:ILE:HD11	1:C:3980:LEU:HD13	1.63	0.81
1:C:495:ASN:HB3	1:C:553:ARG:HH22	1.43	0.81
1:C:622:THR:HG23	1:C:626:LEU:HD12	1.61	0.81
1:A:622:THR:HG23	1:A:626:LEU:HD12	1.61	0.81
1:C:1243:PRO:HD2	1:C:1458:HIS:HB3	1.62	0.80
1:E:2341:VAL:HG13	1:E:2342:ASN:H	1.45	0.80
1:C:595:ARG:NE	1:C:1643:GLU:OE2	2.14	0.80
1:E:3969:ILE:HD11	1:E:3980:LEU:HD13	1.63	0.80
1:G:595:ARG:NE	1:G:1643:GLU:OE2	2.14	0.80
1:G:2341:VAL:HG13	1:G:2342:ASN:H	1.46	0.80
1:C:1206:GLN:H	1:C:1227:ALA:HB3	1.47	0.80
1:E:622:THR:HG23	1:E:626:LEU:HD12	1.61	0.80
1:E:4938:ASP:OD2	1:G:4940:PHE:HB3	1.81	0.80
1:G:622:THR:HG23	1:G:626:LEU:HD12	1.62	0.80
1:G:35:LEU:HD13	1:G:49:LEU:HD22	1.65	0.79
1:A:2770:LYS:HB3	1:A:2775:TRP:HB2	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:595:ARG:NE	1:E:1643:GLU:OE2	2.14	0.79
1:E:35:LEU:HD13	1:E:49:LEU:HD22	1.65	0.79
1:A:595:ARG:NE	1:A:1643:GLU:OE2	2.14	0.79
1:C:2770:LYS:HB3	1:C:2775:TRP:HB2	1.65	0.79
1:E:2770:LYS:HB3	1:E:2775:TRP:HB2	1.65	0.79
1:C:35:LEU:HD13	1:C:49:LEU:HD22	1.65	0.78
1:E:1125:ASN:HD22	1:E:1130:GLN:HG3	1.47	0.78
1:G:1206:GLN:H	1:G:1227:ALA:HB3	1.47	0.78
1:A:1125:ASN:HD22	1:A:1130:GLN:HG3	1.47	0.78
1:A:1206:GLN:H	1:A:1227:ALA:HB3	1.47	0.78
1:G:3927:GLN:HE21	1:G:3991:GLY:HA3	1.47	0.78
1:A:4658:ILE:HG22	1:A:4792:LEU:HB3	1.66	0.78
1:C:4658:ILE:HG22	1:C:4792:LEU:HB3	1.66	0.78
1:A:157:ARG:NH1	1:A:167:ASP:OD2	2.17	0.78
1:C:1819:VAL:HG21	1:C:1865:MET:HE3	1.66	0.78
1:E:72:SER:O	1:E:99:ARG:NH1	2.17	0.78
1:E:157:ARG:NH1	1:E:167:ASP:OD2	2.17	0.78
1:G:2124:LEU:HD21	1:G:3677:LEU:HD21	1.66	0.78
1:E:1819:VAL:HG21	1:E:1865:MET:HE3	1.66	0.77
1:G:2770:LYS:HB3	1:G:2775:TRP:HB2	1.64	0.77
1:A:35:LEU:HD13	1:A:49:LEU:HD22	1.65	0.77
1:C:4934:GLY:HA3	1:E:4937:ILE:HG12	1.67	0.77
1:A:1623:ARG:HH11	1:A:1626:TRP:HE1	1.33	0.77
1:C:157:ARG:NH1	1:C:167:ASP:OD2	2.18	0.77
1:G:157:ARG:NH1	1:G:167:ASP:OD2	2.17	0.77
1:A:1819:VAL:HG21	1:A:1865:MET:HE3	1.66	0.76
1:C:579:GLN:H	1:C:582:HIS:HD2	1.33	0.76
1:E:4658:ILE:HG22	1:E:4792:LEU:HB3	1.66	0.76
2:H:24:VAL:HG12	2:H:103:LEU:HA	1.66	0.76
1:A:3927:GLN:HE21	1:A:3991:GLY:HA3	1.50	0.76
1:A:674:PHE:HB3	2:B:40:ARG:HH12	1.51	0.76
1:C:674:PHE:HB3	2:D:40:ARG:HH12	1.50	0.76
1:C:76:ARG:HE	1:E:3844:LEU:HD21	1.51	0.76
1:E:674:PHE:HB3	2:F:40:ARG:HH12	1.50	0.76
1:E:2191:PHE:CD1	1:E:2198:MET:HE2	2.21	0.76
1:A:579:GLN:H	1:A:582:HIS:HD2	1.33	0.75
1:G:1819:VAL:HG21	1:G:1865:MET:HE3	1.67	0.75
1:A:72:SER:O	1:A:99:ARG:NH1	2.20	0.75
1:E:138:GLN:NE2	1:E:146:CYS:SG	2.58	0.75
1:G:3948:LYS:HG3	1:G:4012:LEU:HD12	1.66	0.75
1:C:138:GLN:NE2	1:C:146:CYS:SG	2.59	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3927:GLN:HE21	1:E:3991:GLY:HA3	1.50	0.75
1:C:1623:ARG:HH11	1:C:1626:TRP:HE1	1.33	0.75
1:E:1206:GLN:H	1:E:1227:ALA:HB3	1.51	0.75
1:E:1623:ARG:HH11	1:E:1626:TRP:HE1	1.33	0.75
1:C:72:SER:O	1:C:99:ARG:NH1	2.20	0.75
1:A:2191:PHE:CD1	1:A:2198:MET:HE2	2.22	0.75
1:C:2191:PHE:CD1	1:C:2198:MET:HE2	2.21	0.75
1:A:138:GLN:NE2	1:A:146:CYS:SG	2.59	0.74
1:G:4984:ASN:O	1:G:4986:ALA:N	2.20	0.74
1:C:3927:GLN:HE21	1:C:3991:GLY:HA3	1.50	0.74
1:E:579:GLN:H	1:E:582:HIS:HD2	1.33	0.74
1:A:732:SER:HB3	1:A:764:VAL:HG13	1.70	0.74
1:A:76:ARG:HE	1:C:3844:LEU:HD21	1.51	0.74
1:E:674:PHE:HB3	2:F:40:ARG:NH1	2.02	0.74
1:G:1623:ARG:HH11	1:G:1626:TRP:HE1	1.32	0.74
1:G:2191:PHE:CD1	1:G:2198:MET:HE2	2.21	0.74
1:C:408:ALA:O	1:C:412:ASN:ND2	2.21	0.74
1:G:1623:ARG:HH11	1:G:1626:TRP:NE1	1.86	0.74
1:A:408:ALA:O	1:A:412:ASN:ND2	2.21	0.74
1:C:2124:LEU:HD21	1:C:3677:LEU:HD21	1.70	0.74
1:G:72:SER:O	1:G:99:ARG:NH1	2.20	0.74
1:C:674:PHE:HB3	2:D:40:ARG:NH1	2.02	0.74
1:E:408:ALA:O	1:E:412:ASN:ND2	2.21	0.74
1:E:732:SER:HB3	1:E:764:VAL:HG13	1.70	0.74
1:E:2124:LEU:HD21	1:E:3677:LEU:HD21	1.70	0.73
1:A:674:PHE:HB3	2:B:40:ARG:NH1	2.02	0.73
1:E:1623:ARG:HH11	1:E:1626:TRP:NE1	1.86	0.73
1:G:579:GLN:H	1:G:582:HIS:HD2	1.33	0.73
1:G:138:GLN:NE2	1:G:146:CYS:SG	2.59	0.73
1:A:1623:ARG:HH11	1:A:1626:TRP:NE1	1.86	0.73
1:A:3844:LEU:HD21	1:G:76:ARG:HE	1.52	0.73
1:C:4192:ARG:NH1	1:C:4982:GLU:OE1	2.22	0.73
1:E:663:TYR:OH	1:E:665:GLU:OE2	2.04	0.73
1:A:2124:LEU:HD21	1:A:3677:LEU:HD21	1.70	0.73
1:C:732:SER:HB3	1:C:764:VAL:HG13	1.70	0.73
1:E:1731:LEU:HA	1:E:1772:ARG:HE	1.53	0.73
1:E:3836:MET:HA	1:E:3839:CYS:SG	2.28	0.73
1:G:1731:LEU:HA	1:G:1772:ARG:HE	1.53	0.73
1:E:4192:ARG:NH1	1:E:4982:GLU:OE1	2.21	0.73
1:A:4192:ARG:NH1	1:A:4982:GLU:OE1	2.22	0.73
1:G:732:SER:HB3	1:G:764:VAL:HG13	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1703:LEU:HD12	1:G:1704:PRO:HD2	1.70	0.73
1:A:1105:ALA:HB3	1:A:1191:VAL:HG21	1.71	0.73
1:C:1703:LEU:HD12	1:C:1704:PRO:HD2	1.70	0.73
1:C:1731:LEU:HA	1:C:1772:ARG:HE	1.53	0.73
1:C:663:TYR:OH	1:C:665:GLU:OE2	2.04	0.72
1:A:1731:LEU:HA	1:A:1772:ARG:HE	1.53	0.72
1:A:3836:MET:HA	1:A:3839:CYS:SG	2.29	0.72
1:A:215:THR:HG22	1:A:273:HIS:HA	1.72	0.72
1:E:1105:ALA:HB3	1:E:1191:VAL:HG21	1.70	0.72
1:E:1676:LEU:HD12	1:E:1725:ARG:HD3	1.72	0.72
1:A:3781:GLN:NE2	1:A:3819:TYR:OH	2.23	0.72
1:E:1766:GLY:HA2	1:E:1856:ASP:OD2	1.90	0.72
1:C:1623:ARG:HH11	1:C:1626:TRP:NE1	1.86	0.72
1:E:1703:LEU:HD12	1:E:1704:PRO:HD2	1.70	0.72
1:C:1676:LEU:HD12	1:C:1725:ARG:HD3	1.72	0.72
1:A:1703:LEU:HD12	1:A:1704:PRO:HD2	1.70	0.72
1:C:1766:GLY:HA2	1:C:1856:ASP:OD2	1.90	0.72
1:C:3836:MET:HA	1:C:3839:CYS:SG	2.29	0.72
1:G:215:THR:HG22	1:G:273:HIS:HA	1.72	0.72
1:A:1766:GLY:HA2	1:A:1856:ASP:OD2	1.90	0.71
1:C:215:THR:HG22	1:C:273:HIS:HA	1.71	0.71
1:E:706:GLY:H	1:E:711:LEU:HD13	1.55	0.71
1:A:706:GLY:H	1:A:711:LEU:HD13	1.55	0.71
1:G:1076:ARG:HD3	1:G:1109:LEU:HD11	1.72	0.71
1:C:1105:ALA:HB3	1:C:1191:VAL:HG21	1.72	0.71
1:G:1766:GLY:HA2	1:G:1856:ASP:OD2	1.90	0.71
1:A:745:SER:HB3	1:A:758:ARG:HB2	1.72	0.71
1:C:706:GLY:H	1:C:711:LEU:HD13	1.56	0.71
1:G:1676:LEU:HD12	1:G:1725:ARG:HD3	1.72	0.71
1:G:745:SER:HB3	1:G:758:ARG:HB2	1.72	0.71
1:A:1676:LEU:HD12	1:A:1725:ARG:HD3	1.71	0.71
2:B:24:VAL:HG12	2:B:103:LEU:HA	1.72	0.71
1:G:408:ALA:O	1:G:412:ASN:ND2	2.21	0.71
1:G:674:PHE:HB3	2:H:40:ARG:NH1	2.06	0.71
1:C:1253:PRO:O	1:C:1281:ASN:ND2	2.24	0.70
1:E:3767:GLN:NE2	1:E:3805:LEU:O	2.25	0.70
1:G:706:GLY:H	1:G:711:LEU:HD13	1.56	0.70
1:A:1253:PRO:O	1:A:1281:ASN:ND2	2.24	0.70
1:E:215:THR:HG22	1:E:273:HIS:HA	1.72	0.70
1:C:3767:GLN:NE2	1:C:3805:LEU:O	2.25	0.70
2:D:24:VAL:HG12	2:D:103:LEU:HA	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1808:ARG:NH1	1:G:1858:ASP:OD2	2.25	0.70
1:E:745:SER:HB3	1:E:758:ARG:HB2	1.73	0.70
1:A:1076:ARG:HD3	1:A:1109:LEU:HD11	1.73	0.70
1:E:3781:GLN:NE2	1:E:3819:TYR:OH	2.24	0.70
1:G:1105:ALA:HB3	1:G:1191:VAL:HG21	1.72	0.70
1:C:745:SER:HB3	1:C:758:ARG:HB2	1.72	0.70
1:C:3842:LEU:HB3	1:C:3929:SER:OG	1.92	0.70
1:G:3836:MET:HA	1:G:3839:CYS:SG	2.32	0.70
1:A:1808:ARG:NH1	1:A:1858:ASP:OD2	2.25	0.70
1:A:3842:LEU:HB3	1:A:3929:SER:OG	1.92	0.70
1:G:4005:GLN:OE1	1:G:4113:SER:OG	2.09	0.70
1:C:1808:ARG:NH1	1:C:1858:ASP:OD2	2.24	0.70
1:C:3948:LYS:HG3	1:C:4012:LEU:HD12	1.73	0.70
1:G:4027:LEU:HA	1:G:4030:LEU:HB3	1.72	0.70
1:A:3920:VAL:HG22	1:A:3985:LEU:HD12	1.75	0.69
1:G:1253:PRO:O	1:G:1281:ASN:ND2	2.24	0.69
1:A:3948:LYS:HG3	1:A:4012:LEU:HD12	1.74	0.69
2:F:24:VAL:HG12	2:F:103:LEU:HA	1.72	0.69
1:G:1243:PRO:HD2	1:G:1458:HIS:HB3	1.72	0.69
1:C:76:ARG:NE	1:E:3844:LEU:HD21	2.07	0.69
1:E:1253:PRO:O	1:E:1281:ASN:ND2	2.24	0.69
1:C:1780:PRO:HG2	2:D:42:ARG:HE	1.58	0.69
1:E:1808:ARG:NH1	1:E:1858:ASP:OD2	2.25	0.69
1:C:1690:ASP:OD1	1:C:1691:GLN:N	2.26	0.69
1:E:3948:LYS:HG3	1:E:4012:LEU:HD12	1.74	0.69
1:G:1762:LEU:HD12	1:G:1763:PRO:HD2	1.73	0.69
1:A:2870:GLU:OE2	1:A:2939:ARG:NE	2.26	0.69
1:A:3844:LEU:HD21	1:G:76:ARG:NE	2.07	0.69
1:C:607:CYS:SG	1:C:618:GLN:NE2	2.66	0.69
1:C:1719:HIS:HB3	1:C:1802:ILE:HD11	1.75	0.69
1:A:1719:HIS:HB3	1:A:1802:ILE:HD11	1.75	0.69
1:C:3781:GLN:NE2	1:C:3819:TYR:OH	2.24	0.69
1:E:3842:LEU:HB3	1:E:3929:SER:OG	1.92	0.69
1:G:1690:ASP:OD1	1:G:1691:GLN:N	2.26	0.69
1:A:3767:GLN:NE2	1:A:3805:LEU:O	2.25	0.69
1:E:110:ARG:HH21	1:E:115:ARG:HD2	1.59	0.69
1:A:475:GLN:NE2	1:A:528:SER:O	2.27	0.68
1:E:607:CYS:SG	1:E:618:GLN:NE2	2.66	0.68
1:G:475:GLN:NE2	1:G:528:SER:O	2.27	0.68
1:E:1719:HIS:HB3	1:E:1802:ILE:HD11	1.74	0.68
1:A:1690:ASP:OD1	1:A:1691:GLN:N	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1762:LEU:HD12	1:A:1763:PRO:HD2	1.74	0.68
1:E:2870:GLU:OE2	1:E:2939:ARG:NE	2.26	0.68
1:A:607:CYS:SG	1:A:618:GLN:NE2	2.66	0.68
1:E:475:GLN:NE2	1:E:528:SER:O	2.27	0.68
1:E:1762:LEU:HD12	1:E:1763:PRO:HD2	1.74	0.68
2:B:23:VAL:HG22	2:B:47:LYS:HG2	1.75	0.68
1:C:1076:ARG:HD3	1:C:1109:LEU:HD11	1.73	0.68
1:C:1596:GLU:HB2	1:C:1599:MET:HG3	1.76	0.68
1:C:1762:LEU:HD12	1:C:1763:PRO:HD2	1.75	0.68
1:C:3920:VAL:HG22	1:C:3985:LEU:HD12	1.75	0.68
1:G:4573:ILE:HG21	1:G:4809:PHE:HE2	1.58	0.68
1:A:569:ILE:HG23	1:A:570:GLU:HG3	1.75	0.68
1:E:3920:VAL:HG22	1:E:3985:LEU:HD12	1.75	0.68
1:E:4030:LEU:HG	1:E:4040:ILE:HD11	1.76	0.68
1:G:1596:GLU:HB2	1:G:1599:MET:HG3	1.76	0.68
1:E:3780:LEU:HD12	1:E:3828:PHE:CE1	2.29	0.68
2:F:23:VAL:HG22	2:F:47:LYS:HG2	1.75	0.68
1:G:4236:SER:O	1:G:4675:LYS:NZ	2.26	0.68
1:C:475:GLN:NE2	1:C:528:SER:O	2.27	0.68
1:C:2876:GLU:OE2	1:C:2916:LYS:HD3	1.94	0.68
1:E:1076:ARG:HD3	1:E:1109:LEU:HD11	1.75	0.68
1:E:1596:GLU:HB2	1:E:1599:MET:HG3	1.76	0.68
1:G:607:CYS:SG	1:G:618:GLN:NE2	2.66	0.68
1:G:755:ILE:HB	1:G:768:PHE:HB2	1.76	0.68
1:A:76:ARG:NE	1:C:3844:LEU:HD21	2.07	0.68
1:C:2191:PHE:HD1	1:C:2198:MET:HE2	1.58	0.67
1:E:1780:PRO:HG2	2:F:42:ARG:HE	1.59	0.67
1:A:755:ILE:HB	1:A:768:PHE:HB2	1.77	0.67
1:A:1596:GLU:HB2	1:A:1599:MET:HG3	1.76	0.67
1:C:1432:THR:N	1:C:1518:CYS:SG	2.68	0.67
1:E:569:ILE:HG23	1:E:570:GLU:HG3	1.75	0.67
1:E:1432:THR:N	1:E:1518:CYS:SG	2.68	0.67
1:A:4030:LEU:HG	1:A:4040:ILE:HD11	1.76	0.67
1:C:2870:GLU:OE2	1:C:2939:ARG:NE	2.26	0.67
1:E:4971:THR:OG1	1:E:5029:ARG:NH2	2.27	0.67
1:G:569:ILE:HG23	1:G:570:GLU:HG3	1.75	0.67
1:G:1719:HIS:HB3	1:G:1802:ILE:HD11	1.75	0.67
1:A:1780:PRO:HG2	2:B:42:ARG:HE	1.57	0.67
1:C:4971:THR:OG1	1:C:5029:ARG:NH2	2.28	0.67
1:A:23:GLN:HE21	1:A:34:LYS:HB3	1.60	0.67
1:A:4934:GLY:CA	1:C:4937:ILE:HG12	2.23	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3780:LEU:HD12	1:C:3828:PHE:CE1	2.29	0.67
1:A:1432:THR:N	1:A:1518:CYS:SG	2.68	0.67
1:A:1667:LEU:HG	1:A:1714:LEU:HD11	1.77	0.67
1:A:2876:GLU:OE2	1:A:2916:LYS:HD3	1.94	0.67
1:A:2917:ALA:HA	1:A:2920:ARG:HB3	1.77	0.67
1:C:569:ILE:HG23	1:C:570:GLU:HG3	1.75	0.67
1:E:1690:ASP:OD1	1:E:1691:GLN:N	2.27	0.67
1:C:1667:LEU:HG	1:C:1714:LEU:HD11	1.77	0.67
1:C:3966:THR:HG22	1:C:4026:MET:HA	1.77	0.67
1:E:755:ILE:HB	1:E:768:PHE:HB2	1.76	0.67
1:E:3966:THR:HG22	1:E:4026:MET:HA	1.77	0.67
1:G:2876:GLU:OE2	1:G:2916:LYS:HD3	1.93	0.67
1:C:2917:ALA:HA	1:C:2920:ARG:HB3	1.77	0.67
1:E:2917:ALA:HA	1:E:2920:ARG:HB3	1.77	0.67
1:C:110:ARG:HH21	1:C:115:ARG:HD2	1.59	0.67
1:C:3817:LEU:HD11	1:C:3821:LYS:HE2	1.77	0.67
2:D:23:VAL:HG22	2:D:47:LYS:HG2	1.75	0.67
1:G:1432:THR:N	1:G:1518:CYS:SG	2.68	0.67
1:A:110:ARG:HH21	1:A:115:ARG:HD2	1.59	0.67
1:C:755:ILE:HB	1:C:768:PHE:HB2	1.77	0.67
1:E:2876:GLU:OE2	1:E:2916:LYS:HD3	1.95	0.67
1:E:4934:GLY:CA	1:G:4937:ILE:HG12	2.21	0.67
1:A:3780:LEU:HD12	1:A:3828:PHE:CE1	2.29	0.66
1:A:3817:LEU:HD11	1:A:3821:LYS:HE2	1.78	0.66
1:G:110:ARG:HH21	1:G:115:ARG:HD2	1.60	0.66
1:G:2865:VAL:O	1:G:2928:LYS:NZ	2.28	0.66
1:A:4940:PHE:HB3	1:G:4938:ASP:OD2	1.95	0.66
1:C:35:LEU:HD22	1:C:49:LEU:HD13	1.77	0.66
1:E:35:LEU:HD22	1:E:49:LEU:HD13	1.77	0.66
1:E:1667:LEU:HG	1:E:1714:LEU:HD11	1.77	0.66
1:G:35:LEU:HD22	1:G:49:LEU:HD13	1.77	0.66
1:G:1735:ILE:HD11	1:G:2156:LEU:HD11	1.77	0.66
1:A:2427:ALA:HB2	1:A:2498:HIS:HD1	1.60	0.66
1:A:4937:ILE:HG12	1:G:4934:GLY:HA3	1.78	0.66
1:A:4971:THR:OG1	1:A:5029:ARG:NH2	2.29	0.66
1:C:2427:ALA:HB2	1:C:2498:HIS:HD1	1.60	0.66
1:G:3948:LYS:HE3	1:G:4012:LEU:HB2	1.77	0.66
1:A:2547:ALA:O	1:A:2551:ASN:ND2	2.28	0.66
1:E:1815:LEU:HD22	1:E:1865:MET:HE1	1.78	0.66
1:C:665:GLU:HB2	1:C:792:LEU:HB2	1.78	0.66
1:E:34:LYS:O	1:E:52:THR:OG1	2.14	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:176:SER:HB2	1:E:178:ARG:HH21	1.60	0.66
1:E:2547:ALA:O	1:E:2551:ASN:ND2	2.28	0.66
1:E:3958:ALA:HA	1:E:3961:VAL:HG12	1.78	0.66
1:G:176:SER:HB2	1:G:178:ARG:HH21	1.60	0.66
1:G:618:GLN:OE1	1:G:1678:ASN:ND2	2.29	0.66
1:A:34:LYS:O	1:A:52:THR:OG1	2.14	0.66
1:A:3966:THR:HG22	1:A:4026:MET:HA	1.77	0.66
1:C:176:SER:HB2	1:C:178:ARG:HH21	1.60	0.66
1:E:23:GLN:HE21	1:E:34:LYS:HB3	1.60	0.66
1:C:2547:ALA:O	1:C:2551:ASN:ND2	2.28	0.66
1:A:3958:ALA:HA	1:A:3961:VAL:HG12	1.78	0.66
1:A:4917:ASP:OD2	1:C:4892:ARG:CZ	2.43	0.66
1:C:4027:LEU:HD11	1:C:4146:LEU:HD11	1.77	0.66
1:G:2547:ALA:O	1:G:2551:ASN:ND2	2.28	0.66
1:C:3958:ALA:HA	1:C:3961:VAL:HG12	1.78	0.66
1:E:1783:VAL:O	2:F:56:ILE:HG23	1.96	0.66
1:E:2427:ALA:HB2	1:E:2498:HIS:HD1	1.60	0.66
1:E:4573:ILE:HD11	1:E:4646:LEU:HB3	1.78	0.66
1:C:23:GLN:HE21	1:C:34:LYS:HB3	1.60	0.65
1:E:4037:ASN:HB3	1:E:4042:ARG:HH21	1.61	0.65
1:C:4030:LEU:HG	1:C:4040:ILE:HD11	1.76	0.65
1:E:2191:PHE:HD1	1:E:2198:MET:HE2	1.58	0.65
1:E:3817:LEU:HD11	1:E:3821:LYS:HE2	1.78	0.65
1:G:34:LYS:O	1:G:52:THR:OG1	2.14	0.65
1:C:4901:ILE:HG21	1:C:4913:ARG:HH21	1.60	0.65
1:C:4917:ASP:OD2	1:E:4892:ARG:CZ	2.44	0.65
1:C:404:ILE:HD13	1:C:481:GLU:HG3	1.78	0.65
1:C:1252:HIS:C	1:C:1254:HIS:H	2.05	0.65
1:E:3754:GLU:OE2	1:E:4718:LYS:HE3	1.97	0.65
1:G:665:GLU:HB2	1:G:792:LEU:HB2	1.78	0.65
1:A:176:SER:HB2	1:A:178:ARG:HH21	1.60	0.65
1:A:2227:LYS:O	1:A:2230:THR:OG1	2.13	0.65
1:E:404:ILE:HD13	1:E:481:GLU:HG3	1.78	0.65
1:G:78:LEU:HD11	1:G:147:TRP:CG	2.32	0.65
1:G:1667:LEU:HG	1:G:1714:LEU:HD11	1.77	0.65
1:A:1252:HIS:C	1:A:1254:HIS:H	2.05	0.65
1:G:1783:VAL:O	2:H:56:ILE:HG23	1.96	0.65
1:G:23:GLN:HE21	1:G:34:LYS:HB3	1.60	0.65
1:A:206:CYS:HB3	1:A:271:GLY:HA3	1.78	0.65
1:A:4901:ILE:HG21	1:A:4913:ARG:HH21	1.61	0.65
1:E:627:PRO:HG3	2:F:89:GLY:HA2	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2227:LYS:O	1:E:2230:THR:OG1	2.13	0.65
1:G:206:CYS:HB3	1:G:271:GLY:HA3	1.77	0.65
1:G:1438:ARG:HB3	1:G:1563:GLN:HB3	1.79	0.65
1:A:78:LEU:HD11	1:A:147:TRP:CG	2.32	0.65
1:E:4027:LEU:HD11	1:E:4146:LEU:HD11	1.78	0.65
1:G:404:ILE:HD13	1:G:481:GLU:HG3	1.78	0.65
1:A:2191:PHE:HD1	1:A:2198:MET:HE2	1.59	0.65
1:C:34:LYS:O	1:C:52:THR:OG1	2.14	0.65
1:G:2227:LYS:O	1:G:2230:THR:OG1	2.13	0.65
1:A:4027:LEU:HD11	1:A:4146:LEU:HD11	1.78	0.64
1:A:4573:ILE:HD11	1:A:4646:LEU:HB3	1.79	0.64
1:C:1735:ILE:HD11	1:C:2156:LEU:HD11	1.78	0.64
1:G:3966:THR:O	1:G:3970:GLN:N	2.29	0.64
1:A:665:GLU:HB2	1:A:792:LEU:HB2	1.78	0.64
1:A:1438:ARG:HB3	1:A:1563:GLN:HB3	1.79	0.64
1:E:1252:HIS:C	1:E:1254:HIS:H	2.05	0.64
1:G:865:PRO:HA	1:G:868:GLU:HB2	1.79	0.64
1:G:2427:ALA:HB2	1:G:2498:HIS:HD1	1.61	0.64
1:C:4037:ASN:HB3	1:C:4042:ARG:HH21	1.61	0.64
1:E:1611:HIS:HB2	1:E:1652:GLU:HB2	1.77	0.64
1:G:588:SER:O	1:G:592:LYS:HG2	1.98	0.64
1:G:674:PHE:O	2:H:40:ARG:NH1	2.29	0.64
1:G:3754:GLU:OE2	1:G:4718:LYS:HE3	1.97	0.64
1:A:35:LEU:HD22	1:A:49:LEU:HD13	1.78	0.64
1:A:1735:ILE:HD11	1:A:2156:LEU:HD11	1.77	0.64
1:C:277:GLY:HA2	1:C:317:ARG:NH1	2.13	0.64
1:C:865:PRO:HA	1:C:868:GLU:HB2	1.79	0.64
1:C:1815:LEU:HD22	1:C:1865:MET:HE1	1.78	0.64
1:C:4573:ILE:HD11	1:C:4646:LEU:HB3	1.78	0.64
1:E:4185:GLY:O	1:E:4187:SER:N	2.30	0.64
1:G:1744:ALA:HB3	1:G:1745:ILE:HA	1.80	0.64
1:G:2191:PHE:HD1	1:G:2198:MET:HE2	1.59	0.64
1:G:4185:GLY:O	1:G:4187:SER:N	2.31	0.64
1:A:491:ILE:O	1:A:495:ASN:ND2	2.31	0.64
1:A:4185:GLY:O	1:A:4187:SER:N	2.31	0.64
1:C:1115:LEU:HD13	1:C:1193:SER:HB2	1.80	0.64
1:E:618:GLN:OE1	1:E:1678:ASN:ND2	2.31	0.64
1:A:683:ARG:HD2	1:A:705:ASN:HB3	1.80	0.64
1:C:1438:ARG:HB3	1:C:1563:GLN:HB3	1.80	0.64
1:C:3754:GLU:OE2	1:C:4718:LYS:HE3	1.96	0.64
1:E:206:CYS:HB3	1:E:271:GLY:HA3	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:665:GLU:HB2	1:E:792:LEU:HB2	1.78	0.64
1:E:683:ARG:HD2	1:E:705:ASN:HB3	1.80	0.64
1:A:1611:HIS:HB2	1:A:1652:GLU:HB2	1.79	0.64
1:C:206:CYS:HB3	1:C:271:GLY:HA3	1.78	0.64
1:C:588:SER:O	1:C:592:LYS:HG2	1.98	0.64
1:C:1611:HIS:HB2	1:C:1652:GLU:HB2	1.80	0.64
1:C:1716:ILE:HD11	1:C:1844:LEU:HA	1.80	0.64
2:D:14:THR:HG22	2:D:106:LEU:HD12	1.80	0.64
1:E:1438:ARG:HB3	1:E:1563:GLN:HB3	1.79	0.64
1:G:1252:HIS:C	1:G:1254:HIS:H	2.05	0.64
1:A:865:PRO:HA	1:A:868:GLU:HB2	1.79	0.64
1:A:1744:ALA:HB3	1:A:1745:ILE:HA	1.80	0.64
1:A:3754:GLU:OE2	1:A:4718:LYS:HE3	1.97	0.64
1:A:4037:ASN:HB3	1:A:4042:ARG:HH21	1.61	0.64
1:C:78:LEU:HD11	1:C:147:TRP:CG	2.32	0.64
1:C:618:GLN:OE1	1:C:1678:ASN:ND2	2.31	0.64
1:E:1716:ILE:HD11	1:E:1844:LEU:HA	1.80	0.64
1:G:683:ARG:HD2	1:G:705:ASN:HB3	1.80	0.64
1:C:491:ILE:O	1:C:495:ASN:ND2	2.31	0.64
1:E:1744:ALA:HB3	1:E:1745:ILE:HA	1.80	0.64
1:A:1815:LEU:HD22	1:A:1865:MET:HE1	1.78	0.64
1:C:1744:ALA:HB3	1:C:1745:ILE:HA	1.80	0.64
1:E:1735:ILE:HD11	1:E:2156:LEU:HD11	1.78	0.64
1:G:674:PHE:HB3	2:H:40:ARG:HH12	1.61	0.64
1:G:1737:PRO:HG2	1:G:1742:THR:HG21	1.80	0.64
1:A:588:SER:O	1:A:592:LYS:HG2	1.98	0.63
1:G:1611:HIS:HB2	1:G:1652:GLU:HB2	1.79	0.63
1:A:627:PRO:HG3	2:B:89:GLY:HA2	1.80	0.63
1:A:1783:VAL:O	2:B:56:ILE:HG23	1.98	0.63
1:E:4914:VAL:CG2	1:G:4888:TYR:HB2	2.28	0.63
2:F:14:THR:HG22	2:F:106:LEU:HD12	1.80	0.63
1:A:1716:ILE:HD11	1:A:1844:LEU:HA	1.80	0.63
1:A:4034:ASN:OD1	1:A:4035:VAL:N	2.32	0.63
1:C:627:PRO:HG3	2:D:89:GLY:HA2	1.79	0.63
1:C:1783:VAL:O	2:D:56:ILE:HG23	1.97	0.63
1:G:1716:ILE:HD11	1:G:1844:LEU:HA	1.80	0.63
1:G:1815:LEU:HD22	1:G:1865:MET:HE1	1.78	0.63
1:G:2166:LEU:HD12	1:G:2206:THR:HG23	1.80	0.63
1:A:404:ILE:HD13	1:A:481:GLU:HG3	1.78	0.63
1:E:1115:LEU:HD13	1:E:1193:SER:HB2	1.80	0.63
1:G:491:ILE:O	1:G:495:ASN:ND2	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1115:LEU:HD13	1:A:1193:SER:HB2	1.81	0.63
1:A:2166:LEU:HD12	1:A:2206:THR:HG23	1.80	0.63
2:B:71:ARG:NH2	2:B:100:ASP:OD2	2.32	0.63
1:E:491:ILE:O	1:E:495:ASN:ND2	2.31	0.63
1:E:588:SER:O	1:E:592:LYS:HG2	1.98	0.63
1:C:683:ARG:HD2	1:C:705:ASN:HB3	1.79	0.63
1:E:4917:ASP:OD2	1:G:4892:ARG:CZ	2.46	0.63
1:A:618:GLN:OE1	1:A:1678:ASN:ND2	2.31	0.63
2:B:14:THR:HG22	2:B:106:LEU:HD12	1.80	0.63
1:C:4984:ASN:O	1:C:4986:ALA:N	2.31	0.63
1:E:4034:ASN:OD1	1:E:4035:VAL:N	2.32	0.63
1:E:4984:ASN:O	1:E:4986:ALA:N	2.32	0.63
1:G:623:GLU:OE2	2:H:89:GLY:N	2.32	0.63
1:C:3813:GLN:NE2	1:C:3890:LEU:O	2.32	0.63
1:C:4034:ASN:OD1	1:C:4035:VAL:N	2.32	0.63
1:E:3958:ALA:HB3	1:E:4019:LEU:HD11	1.81	0.63
2:F:74:LEU:HB2	2:F:99:PHE:HB2	1.81	0.63
1:C:3958:ALA:HB3	1:C:4019:LEU:HD11	1.81	0.63
1:E:2166:LEU:HD12	1:E:2206:THR:HG23	1.81	0.63
1:G:1115:LEU:HD13	1:G:1193:SER:HB2	1.81	0.63
1:A:2149:VAL:O	1:A:2152:THR:OG1	2.15	0.62
1:C:687:ALA:HB2	1:C:711:LEU:HD23	1.81	0.62
1:C:1115:LEU:HD21	1:C:1123:VAL:HG11	1.81	0.62
1:E:3786:CYS:SG	1:E:3794:VAL:HG22	2.39	0.62
1:G:707:VAL:HA	1:G:725:HIS:HB2	1.82	0.62
1:G:4962:GLY:O	1:G:4964:GLY:N	2.32	0.62
1:A:1243:PRO:HD2	1:A:1458:HIS:HB3	1.82	0.62
1:C:3786:CYS:SG	1:C:3794:VAL:HG22	2.38	0.62
1:E:687:ALA:HB2	1:E:711:LEU:HD23	1.81	0.62
1:G:4049:VAL:HG21	1:G:4159:ARG:HD3	1.81	0.62
1:A:4962:GLY:O	1:A:4964:GLY:N	2.32	0.62
1:C:4934:GLY:CA	1:E:4937:ILE:HG12	2.30	0.62
1:G:4034:ASN:OD1	1:G:4035:VAL:N	2.32	0.62
1:G:4245:MET:SD	1:G:4993:MET:HE1	2.40	0.62
1:C:4185:GLY:O	1:C:4187:SER:N	2.31	0.62
1:A:1115:LEU:HD21	1:A:1123:VAL:HG11	1.81	0.62
1:A:3813:GLN:NE2	1:A:3890:LEU:O	2.33	0.62
1:G:1115:LEU:HD21	1:G:1123:VAL:HG11	1.81	0.62
1:G:3781:GLN:NE2	1:G:3819:TYR:OH	2.28	0.62
1:A:276:TRP:NE1	1:A:338:GLU:OE2	2.28	0.62
1:A:3958:ALA:HB3	1:A:4019:LEU:HD11	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:38:ALA:HB1	1:C:64:ILE:HD12	1.81	0.62
1:C:790:ARG:HA	1:C:1627:ALA:HA	1.82	0.62
1:E:1737:PRO:HG2	1:E:1742:THR:HG21	1.81	0.62
1:G:4037:ASN:HB3	1:G:4042:ARG:HH21	1.63	0.62
1:C:1098:GLY:HA3	1:C:1198:GLN:HE21	1.65	0.62
1:C:3843:ASP:OD1	1:C:3844:LEU:N	2.32	0.62
1:C:4962:GLY:O	1:C:4964:GLY:N	2.32	0.62
1:E:76:ARG:NH1	1:E:79:GLN:OE1	2.32	0.62
1:E:78:LEU:HD11	1:E:147:TRP:CG	2.35	0.62
1:E:707:VAL:HA	1:E:725:HIS:HB2	1.82	0.62
1:E:739:ALA:O	1:E:741:GLU:N	2.30	0.62
1:E:3992:PHE:O	1:E:3996:PHE:N	2.29	0.62
1:A:707:VAL:HA	1:A:725:HIS:HB2	1.82	0.62
1:A:1125:ASN:ND2	1:A:1130:GLN:O	2.33	0.62
1:A:4888:TYR:HD1	1:G:4914:VAL:HG23	1.57	0.62
2:D:74:LEU:HB2	2:D:99:PHE:HB2	1.80	0.62
1:E:3919:THR:HG21	1:E:3968:TYR:HE2	1.65	0.62
1:C:2166:LEU:HD12	1:C:2206:THR:HG23	1.81	0.62
1:E:865:PRO:HA	1:E:868:GLU:HB2	1.80	0.62
1:E:4962:GLY:O	1:E:4964:GLY:N	2.32	0.62
1:G:3969:ILE:HG23	1:G:3977:GLN:HG2	1.80	0.62
1:C:276:TRP:NE1	1:C:338:GLU:OE2	2.28	0.61
1:C:2227:LYS:O	1:C:2230:THR:OG1	2.14	0.61
1:E:3813:GLN:NE2	1:E:3890:LEU:O	2.33	0.61
1:G:276:TRP:NE1	1:G:338:GLU:OE2	2.28	0.61
1:C:707:VAL:HA	1:C:725:HIS:HB2	1.82	0.61
1:E:1125:ASN:ND2	1:E:1130:GLN:O	2.33	0.61
1:G:627:PRO:HG3	2:H:89:GLY:HA2	1.81	0.61
1:A:38:ALA:HB1	1:A:64:ILE:HD12	1.81	0.61
1:A:76:ARG:HH21	1:C:3844:LEU:HD21	1.65	0.61
1:A:687:ALA:HB2	1:A:711:LEU:HD23	1.81	0.61
1:A:2107:GLN:NE2	1:A:3679:LYS:O	2.33	0.61
1:A:4984:ASN:O	1:A:4986:ALA:N	2.32	0.61
2:B:74:LEU:HB2	2:B:99:PHE:HB2	1.81	0.61
1:C:34:LYS:N	1:C:53:SER:OG	2.33	0.61
1:E:465:GLN:NE2	1:E:3712:GLU:OE1	2.33	0.61
1:G:38:ALA:HB1	1:G:64:ILE:HD12	1.81	0.61
1:C:2107:GLN:NE2	1:C:3679:LYS:O	2.33	0.61
1:E:3843:ASP:OD1	1:E:3844:LEU:N	2.32	0.61
1:G:3813:GLN:NE2	1:G:3890:LEU:O	2.33	0.61
1:A:33:LEU:HD11	1:A:51:PRO:HB3	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:465:GLN:NE2	1:A:3712:GLU:OE1	2.33	0.61
1:A:790:ARG:HA	1:A:1627:ALA:HA	1.82	0.61
1:C:465:GLN:NE2	1:C:3712:GLU:OE1	2.34	0.61
1:C:4027:LEU:HD11	1:C:4146:LEU:CD1	2.31	0.61
1:C:4828:SER:HA	1:C:4831:THR:HG22	1.83	0.61
1:E:2107:GLN:NE2	1:E:3679:LYS:O	2.33	0.61
1:G:687:ALA:HB2	1:G:711:LEU:HD23	1.81	0.61
1:G:3423:TRP:O	1:G:3428:ASN:N	2.32	0.61
1:A:3844:LEU:HD21	1:G:76:ARG:HH21	1.65	0.61
1:A:4005:GLN:OE1	1:A:4113:SER:OG	2.19	0.61
1:C:1737:PRO:HG2	1:C:1742:THR:HG21	1.81	0.61
1:C:3919:THR:HG21	1:C:3968:TYR:HE2	1.65	0.61
1:E:38:ALA:HB1	1:E:64:ILE:HD12	1.82	0.61
1:E:4828:SER:HA	1:E:4831:THR:HG22	1.82	0.61
1:G:4837:LEU:HD11	1:G:4932:ILE:HG23	1.81	0.61
1:C:1970:GLN:NE2	1:C:3645:PRO:O	2.29	0.61
1:A:1098:GLY:HA3	1:A:1198:GLN:HE21	1.65	0.61
1:E:34:LYS:N	1:E:53:SER:OG	2.33	0.61
1:E:276:TRP:NE1	1:E:338:GLU:OE2	2.28	0.61
2:F:71:ARG:NH2	2:F:100:ASP:OD2	2.32	0.61
1:G:2149:VAL:O	1:G:2152:THR:OG1	2.14	0.61
1:G:2917:ALA:HA	1:G:2920:ARG:HB3	1.83	0.61
1:A:34:LYS:N	1:A:53:SER:OG	2.33	0.61
1:C:76:ARG:HH21	1:E:3844:LEU:HD21	1.66	0.61
2:D:71:ARG:NH2	2:D:100:ASP:OD2	2.31	0.61
1:E:4901:ILE:HG21	1:E:4913:ARG:HH21	1.65	0.61
1:G:790:ARG:HA	1:G:1627:ALA:HA	1.82	0.61
1:G:4573:ILE:HG21	1:G:4809:PHE:CE2	2.36	0.61
1:A:277:GLY:HA2	1:A:317:ARG:NH1	2.13	0.60
1:A:489:ASN:HB3	1:A:493:ARG:NH1	2.16	0.60
1:A:2865:VAL:O	1:A:2928:LYS:NZ	2.33	0.60
1:A:3919:THR:HG21	1:A:3968:TYR:HE2	1.65	0.60
1:A:4828:SER:HA	1:A:4831:THR:HG22	1.81	0.60
1:C:3805:LEU:O	1:C:3807:GLY:N	2.34	0.60
1:G:3969:ILE:HD11	1:G:3980:LEU:HD13	1.83	0.60
1:A:1737:PRO:HG2	1:A:1742:THR:HG21	1.82	0.60
1:E:4027:LEU:HD11	1:E:4146:LEU:CD1	2.31	0.60
1:G:3969:ILE:HD13	1:G:4030:LEU:HD13	1.83	0.60
1:A:4963:ILE:HD12	1:A:5030:LYS:NZ	2.16	0.60
1:G:33:LEU:HD11	1:G:51:PRO:HB3	1.82	0.60
1:A:699:GLY:O	1:A:1647:CYS:N	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2822:THR:HG1	1:A:2938:THR:HG1	1.48	0.60
1:A:3844:LEU:HD21	1:G:76:ARG:NH2	2.16	0.60
1:E:790:ARG:HA	1:E:1627:ALA:HA	1.82	0.60
1:E:2822:THR:OG1	1:E:2938:THR:OG1	2.19	0.60
1:E:1115:LEU:HD21	1:E:1123:VAL:HG11	1.81	0.60
1:G:4712:PRO:O	1:G:4718:LYS:NZ	2.29	0.60
1:C:1125:ASN:HD22	1:C:1130:GLN:HG3	1.66	0.60
1:G:489:ASN:HB3	1:G:493:ARG:NH1	2.16	0.60
1:G:1098:GLY:HA3	1:G:1198:GLN:HE21	1.65	0.60
1:C:681:HIS:HA	1:C:716:PHE:CD1	2.37	0.60
1:C:4963:ILE:HD12	1:C:5030:LYS:NZ	2.16	0.60
1:E:3805:LEU:O	1:E:3807:GLY:N	2.33	0.60
1:C:33:LEU:HD11	1:C:51:PRO:HB3	1.83	0.60
1:G:681:HIS:HA	1:G:716:PHE:CD1	2.37	0.60
1:A:4027:LEU:HD11	1:A:4146:LEU:CD1	2.31	0.60
1:C:714:TYR:HB3	1:C:757:PHE:HD2	1.66	0.60
1:G:34:LYS:N	1:G:53:SER:OG	2.33	0.60
1:G:739:ALA:O	1:G:741:GLU:N	2.31	0.60
1:G:3920:VAL:HG22	1:G:3985:LEU:HD12	1.84	0.60
1:A:714:TYR:HB3	1:A:757:PHE:HD2	1.66	0.60
1:C:489:ASN:HB3	1:C:493:ARG:NH1	2.16	0.60
1:C:2149:VAL:O	1:C:2152:THR:OG1	2.15	0.60
1:E:1098:GLY:HA3	1:E:1198:GLN:HE21	1.65	0.60
1:E:2149:VAL:O	1:E:2152:THR:OG1	2.15	0.60
1:A:1927:LEU:HD21	1:A:2101:MET:HG2	1.83	0.59
1:A:4228:ALA:HB2	1:C:4976:GLU:OE1	2.01	0.59
1:E:674:PHE:O	2:F:40:ARG:NH1	2.35	0.59
1:E:4836:GLN:HB3	1:G:4826:ILE:HD11	1.83	0.59
1:A:1237:TRP:HD1	1:A:1611:HIS:HA	1.68	0.59
1:C:4005:GLN:OE1	1:C:4113:SER:OG	2.19	0.59
1:E:714:TYR:HB3	1:E:757:PHE:HD2	1.66	0.59
1:E:3891:LEU:HB3	1:E:3899:PHE:CE2	2.37	0.59
1:G:714:TYR:HB3	1:G:757:PHE:HD2	1.67	0.59
1:E:106:ALA:HA	1:E:149:THR:HA	1.83	0.59
1:E:4005:GLN:OE1	1:E:4113:SER:OG	2.18	0.59
1:G:1780:PRO:HG2	2:H:42:ARG:HE	1.67	0.59
1:A:2336:ARG:HG3	1:A:2435:ARG:HG3	1.85	0.59
1:C:2159:LEU:O	1:C:2162:ILE:HG22	2.02	0.59
1:C:4228:ALA:HB2	1:E:4976:GLU:OE1	2.02	0.59
1:E:1552:VAL:HG12	1:E:1554:VAL:HG23	1.85	0.59
1:E:1927:LEU:HD21	1:E:2101:MET:HG2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4963:ILE:HD12	1:E:5030:LYS:NZ	2.17	0.59
1:G:2333:ASP:OD1	1:G:2336:ARG:NH2	2.36	0.59
1:A:1552:VAL:HG12	1:A:1554:VAL:HG23	1.84	0.59
1:A:2159:LEU:O	1:A:2162:ILE:HG22	2.02	0.59
1:C:1101:ARG:HG3	1:C:1193:SER:HB3	1.85	0.59
1:C:2336:ARG:HG3	1:C:2435:ARG:HG3	1.85	0.59
1:E:1243:PRO:HD2	1:E:1458:HIS:CB	2.29	0.59
1:E:3878:ASP:OD2	1:E:3953:LYS:HG3	2.03	0.59
1:C:76:ARG:NH2	1:E:3844:LEU:HD21	2.17	0.59
1:C:106:ALA:HA	1:C:149:THR:HA	1.83	0.59
1:C:402:ARG:NH1	1:C:405:HIS:HD2	2.01	0.59
1:C:3878:ASP:OD2	1:C:3953:LYS:HG3	2.03	0.59
1:E:2159:LEU:O	1:E:2162:ILE:HG22	2.02	0.59
1:G:277:GLY:HA2	1:G:317:ARG:NH1	2.13	0.59
1:G:1288:PHE:HE2	1:G:1460:HIS:HA	1.68	0.59
1:G:1552:VAL:HG12	1:G:1554:VAL:HG23	1.85	0.59
1:G:1648:MET:SD	1:G:1656:ARG:NH2	2.76	0.59
1:A:4928:LEU:O	1:A:4932:ILE:HD12	2.03	0.59
1:C:1637:MET:HG3	1:C:1650:ILE:HD13	1.85	0.59
1:C:3891:LEU:HB3	1:C:3899:PHE:CE2	2.37	0.59
1:C:4928:LEU:O	1:C:4932:ILE:HD12	2.03	0.59
1:E:699:GLY:O	1:E:1647:CYS:N	2.36	0.59
1:G:1637:MET:HG3	1:G:1650:ILE:HD13	1.84	0.59
1:A:3805:LEU:O	1:A:3807:GLY:N	2.33	0.59
1:A:3878:ASP:OD2	1:A:3953:LYS:HG3	2.03	0.59
1:C:674:PHE:O	2:D:40:ARG:NH1	2.36	0.59
1:G:1101:ARG:HG3	1:G:1193:SER:HB3	1.84	0.59
1:G:2336:ARG:HG3	1:G:2435:ARG:HG3	1.85	0.59
1:G:2756:ASN:OD1	1:G:2806:ARG:NH2	2.35	0.59
1:G:2875:ALA:HB2	1:G:2927:LEU:HD12	1.84	0.59
1:G:3891:LEU:HB3	1:G:3899:PHE:CE2	2.37	0.59
1:A:106:ALA:HA	1:A:149:THR:HA	1.83	0.59
1:A:674:PHE:O	2:B:40:ARG:NH1	2.35	0.59
1:A:1637:MET:HG3	1:A:1650:ILE:HD13	1.85	0.59
1:C:1648:MET:SD	1:C:1656:ARG:NH2	2.76	0.59
1:E:33:LEU:HD11	1:E:51:PRO:HB3	1.83	0.59
1:E:2333:ASP:OD1	1:E:2336:ARG:NH2	2.36	0.59
1:G:2107:GLN:NE2	1:G:3679:LYS:O	2.35	0.59
1:A:2333:ASP:OD1	1:A:2336:ARG:NH2	2.36	0.59
1:A:4059:LEU:HD13	1:A:4167:ALA:HB2	1.85	0.59
1:A:4963:ILE:HD11	1:A:5025:GLY:O	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:530:ILE:HG23	1:C:537:CYS:HB3	1.85	0.59
1:C:2248:ARG:HG2	1:C:2286:LEU:HD11	1.85	0.59
1:E:489:ASN:HB3	1:E:493:ARG:NH1	2.16	0.59
1:G:106:ALA:HA	1:G:149:THR:HA	1.83	0.59
1:G:3805:LEU:O	1:G:3807:GLY:N	2.32	0.59
1:G:4963:ILE:HD11	1:G:5025:GLY:O	2.03	0.59
1:G:4971:THR:OG1	1:G:5029:ARG:NH2	2.36	0.59
1:A:76:ARG:NH2	1:C:3844:LEU:HD21	2.16	0.58
1:A:402:ARG:NH1	1:A:405:HIS:HD2	2.01	0.58
1:A:822:ARG:HA	1:A:1623:ARG:HH12	1.68	0.58
1:C:1730:MET:HE1	1:C:2159:LEU:HD22	1.85	0.58
1:C:1927:LEU:HD21	1:C:2101:MET:HG2	1.84	0.58
1:C:3879:GLU:OE2	1:C:3883:ASP:OD2	2.21	0.58
1:E:1648:MET:SD	1:E:1656:ARG:NH2	2.76	0.58
1:E:2248:ARG:HG2	1:E:2286:LEU:HD11	1.85	0.58
1:G:530:ILE:HG23	1:G:537:CYS:HB3	1.85	0.58
1:C:4963:ILE:HD11	1:C:5025:GLY:O	2.03	0.58
1:E:880:GLU:HG2	1:E:967:PRO:HG2	1.85	0.58
1:E:1091:GLU:HB2	1:E:1203:ASN:HB2	1.86	0.58
1:E:1970:GLN:NE2	1:E:3645:PRO:O	2.29	0.58
1:C:1079:LYS:HA	1:C:1082:THR:HG23	1.85	0.58
1:E:1637:MET:HG3	1:E:1650:ILE:HD13	1.84	0.58
1:E:1730:MET:HE1	1:E:2159:LEU:HD22	1.85	0.58
1:E:3727:ASP:HB3	1:E:3731:LYS:NZ	2.18	0.58
1:G:402:ARG:NH1	1:G:405:HIS:HD2	2.01	0.58
1:G:1657:LEU:HA	1:G:1660:GLN:HG2	1.85	0.58
1:A:681:HIS:HA	1:A:716:PHE:CD1	2.37	0.58
1:A:3843:ASP:OD1	1:A:3844:LEU:N	2.31	0.58
1:A:3992:PHE:O	1:A:3996:PHE:N	2.29	0.58
1:C:880:GLU:HG2	1:C:967:PRO:HG2	1.85	0.58
1:C:1552:VAL:HG12	1:C:1554:VAL:HG23	1.85	0.58
1:E:4214:LYS:HD2	1:E:4985:LEU:HD23	1.84	0.58
1:A:1648:MET:SD	1:A:1656:ARG:NH2	2.76	0.58
1:A:3879:GLU:OE2	1:A:3883:ASP:OD2	2.21	0.58
1:C:3992:PHE:O	1:C:3996:PHE:N	2.29	0.58
1:E:2336:ARG:HG3	1:E:2435:ARG:HG3	1.86	0.58
1:G:2159:LEU:O	1:G:2162:ILE:HG22	2.02	0.58
1:G:4818:MET:HA	1:G:4824:ARG:HG2	1.84	0.58
1:A:489:ASN:HB3	1:A:493:ARG:HH12	1.69	0.58
1:A:1091:GLU:HB2	1:A:1203:ASN:HB2	1.86	0.58
1:A:1730:MET:HE1	1:A:2159:LEU:HD22	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3891:LEU:HB3	1:A:3899:PHE:CE2	2.38	0.58
1:C:739:ALA:O	1:C:741:GLU:N	2.31	0.58
1:C:2865:VAL:O	1:C:2928:LYS:NZ	2.34	0.58
1:E:4239:GLU:OE2	1:E:5014:TYR:OH	2.18	0.58
1:G:717:ASP:O	1:G:720:HIS:NE2	2.35	0.58
1:G:1125:ASN:HD22	1:G:1130:GLN:HG3	1.67	0.58
1:A:1970:GLN:NE2	1:A:3645:PRO:O	2.29	0.58
1:A:2248:ARG:HG2	1:A:2286:LEU:HD11	1.85	0.58
1:A:2875:ALA:HB2	1:A:2927:LEU:HD12	1.86	0.58
1:A:3727:ASP:HB3	1:A:3731:LYS:NZ	2.18	0.58
1:C:990:GLU:HG3	1:C:1024:TYR:HB3	1.86	0.58
1:E:277:GLY:HA2	1:E:317:ARG:NH1	2.13	0.58
1:G:465:GLN:HE21	1:G:3711:THR:HA	1.68	0.58
1:G:537:CYS:HB2	1:G:567:VAL:HG13	1.86	0.58
1:G:1091:GLU:HB2	1:G:1203:ASN:HB2	1.86	0.58
1:A:1101:ARG:HG3	1:A:1193:SER:HB3	1.86	0.58
1:A:1657:LEU:HA	1:A:1660:GLN:HG2	1.85	0.58
1:C:37:LEU:HD13	1:C:191:VAL:HG21	1.86	0.58
1:C:537:CYS:HB2	1:C:567:VAL:HG13	1.85	0.58
1:C:822:ARG:HA	1:C:1623:ARG:HH12	1.69	0.58
1:E:465:GLN:HE21	1:E:3711:THR:HA	1.69	0.58
1:E:530:ILE:HG23	1:E:537:CYS:HB3	1.85	0.58
1:E:1944:GLU:HG3	1:E:2123:LEU:HD21	1.86	0.58
1:G:489:ASN:HB3	1:G:493:ARG:HH12	1.69	0.58
1:G:3813:GLN:OE1	1:G:3896:ASN:ND2	2.37	0.58
1:G:3817:LEU:HD11	1:G:3821:LYS:HE2	1.84	0.58
1:A:3701:LEU:HD11	1:A:3725:TYR:CD1	2.39	0.58
1:C:465:GLN:HE21	1:C:3711:THR:HA	1.69	0.58
1:C:699:GLY:O	1:C:1647:CYS:N	2.36	0.58
1:C:1091:GLU:HB2	1:C:1203:ASN:HB2	1.86	0.58
1:C:1657:LEU:HA	1:C:1660:GLN:HG2	1.85	0.58
1:G:603:LEU:HA	1:G:606:LEU:HD12	1.86	0.58
1:G:699:GLY:O	1:G:1647:CYS:N	2.36	0.58
1:A:2347:GLU:OE2	1:A:3852:LYS:CD	2.52	0.58
1:A:2347:GLU:OE2	1:A:3852:LYS:HD3	2.04	0.58
1:C:1802:ILE:HB	1:C:1804:LEU:HD12	1.86	0.58
1:C:2875:ALA:HB2	1:C:2927:LEU:HD12	1.86	0.58
1:C:4054:ASN:OD1	1:C:4055:VAL:N	2.37	0.58
1:E:402:ARG:NH1	1:E:405:HIS:HD2	2.01	0.58
1:E:537:CYS:HB2	1:E:567:VAL:HG13	1.85	0.58
1:E:681:HIS:HA	1:E:716:PHE:CD1	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1657:LEU:HA	1:E:1660:GLN:HG2	1.85	0.58
1:G:822:ARG:HA	1:G:1623:ARG:HH12	1.68	0.58
1:G:880:GLU:HG2	1:G:967:PRO:HG2	1.85	0.58
1:G:1079:LYS:HA	1:G:1082:THR:HG23	1.86	0.58
1:G:1730:MET:HE1	1:G:2159:LEU:HD22	1.86	0.58
1:G:1927:LEU:HD21	1:G:2101:MET:HG2	1.84	0.58
1:A:37:LEU:HD13	1:A:191:VAL:HG21	1.86	0.57
1:A:465:GLN:HE21	1:A:3711:THR:HA	1.69	0.57
1:A:603:LEU:HA	1:A:606:LEU:HD12	1.86	0.57
1:A:880:GLU:HG2	1:A:967:PRO:HG2	1.85	0.57
1:E:1101:ARG:HG3	1:E:1193:SER:HB3	1.86	0.57
1:G:2870:GLU:OE2	1:G:2939:ARG:NE	2.37	0.57
1:C:1944:GLU:HG3	1:C:2123:LEU:HD21	1.86	0.57
1:C:3701:LEU:HD11	1:C:3725:TYR:CD1	2.39	0.57
1:E:1288:PHE:HE2	1:E:1460:HIS:HA	1.68	0.57
1:A:1079:LYS:HA	1:A:1082:THR:HG23	1.85	0.57
1:C:3727:ASP:HB3	1:C:3731:LYS:NZ	2.18	0.57
1:E:1077:ALA:HA	1:E:1236:THR:HG22	1.87	0.57
1:E:2875:ALA:HB2	1:E:2927:LEU:HD12	1.86	0.57
1:G:1093:GLU:HB2	1:G:1201:HIS:HB3	1.87	0.57
1:G:1819:VAL:HG22	1:G:1926:LEU:HD13	1.87	0.57
1:A:990:GLU:HG3	1:A:1024:TYR:HB3	1.86	0.57
1:C:1819:VAL:HG22	1:C:1926:LEU:HD13	1.87	0.57
1:C:4059:LEU:HD13	1:C:4167:ALA:HB2	1.86	0.57
1:E:37:LEU:HD11	1:E:47:CYS:HB3	1.87	0.57
1:E:3879:GLU:OE2	1:E:3883:ASP:OD2	2.22	0.57
2:H:14:THR:HG22	2:H:106:LEU:HD12	1.86	0.57
1:C:489:ASN:HB3	1:C:493:ARG:HH12	1.69	0.57
1:E:37:LEU:HD13	1:E:191:VAL:HG21	1.86	0.57
1:E:1078:GLU:HA	1:E:1237:TRP:CZ3	2.40	0.57
1:E:4059:LEU:HD13	1:E:4167:ALA:HB2	1.85	0.57
1:E:4934:GLY:HA3	1:G:4937:ILE:CG1	2.29	0.57
1:G:1078:GLU:HA	1:G:1237:TRP:CZ3	2.40	0.57
1:A:1671:ARG:HD2	1:A:1713:ASP:HB3	1.87	0.57
1:C:1638:ALA:HA	1:C:1649:ASP:HA	1.87	0.57
1:E:990:GLU:HG3	1:E:1024:TYR:HB3	1.86	0.57
1:E:1638:ALA:HA	1:E:1649:ASP:HA	1.87	0.57
1:E:4054:ASN:OD1	1:E:4055:VAL:N	2.37	0.57
1:E:4849:TYR:O	1:E:4852:THR:HG22	2.05	0.57
1:G:990:GLU:HG3	1:G:1024:TYR:HB3	1.86	0.57
1:A:530:ILE:HG23	1:A:537:CYS:HB3	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:551:LEU:HG	1:A:589:LEU:HD22	1.87	0.57
1:A:4054:ASN:OD1	1:A:4055:VAL:N	2.37	0.57
1:E:489:ASN:HB3	1:E:493:ARG:HH12	1.69	0.57
1:E:603:LEU:HA	1:E:606:LEU:HD12	1.86	0.57
1:E:717:ASP:O	1:E:720:HIS:NE2	2.38	0.57
1:E:1093:GLU:HB2	1:E:1201:HIS:HB3	1.87	0.57
1:E:4963:ILE:HD11	1:E:5025:GLY:O	2.04	0.57
1:A:717:ASP:O	1:A:720:HIS:NE2	2.38	0.57
1:A:1802:ILE:HB	1:A:1804:LEU:HD12	1.86	0.57
1:A:4214:LYS:HD2	1:A:4985:LEU:HD23	1.86	0.57
1:C:110:ARG:HH21	1:C:115:ARG:HH21	1.53	0.57
1:A:1638:ALA:HA	1:A:1649:ASP:HA	1.87	0.57
1:C:603:LEU:HA	1:C:606:LEU:HD12	1.86	0.57
1:C:717:ASP:O	1:C:720:HIS:NE2	2.38	0.57
1:C:2333:ASP:OD1	1:C:2336:ARG:NH2	2.36	0.57
1:G:37:LEU:HD13	1:G:191:VAL:HG21	1.86	0.57
1:G:37:LEU:HD11	1:G:47:CYS:HB3	1.86	0.57
1:G:1237:TRP:HD1	1:G:1611:HIS:HA	1.69	0.57
1:A:108:LEU:HB2	1:A:147:TRP:CZ3	2.40	0.57
1:A:1093:GLU:HB2	1:A:1201:HIS:HB3	1.86	0.57
1:A:1819:VAL:HG22	1:A:1926:LEU:HD13	1.87	0.57
1:C:1078:GLU:HA	1:C:1237:TRP:CZ3	2.40	0.57
1:E:110:ARG:HH21	1:E:115:ARG:HH21	1.53	0.57
1:E:1819:VAL:HG22	1:E:1926:LEU:HD13	1.87	0.57
1:G:108:LEU:HB2	1:G:147:TRP:CZ3	2.40	0.57
1:G:3780:LEU:HD12	1:G:3828:PHE:CE1	2.39	0.57
1:C:37:LEU:HD11	1:C:47:CYS:HB3	1.86	0.56
1:C:1514:LEU:O	1:C:1532:ASN:N	2.36	0.56
1:C:2829:GLY:HA3	1:C:2933:ASN:HA	1.86	0.56
1:E:3701:LEU:HD11	1:E:3725:TYR:CD1	2.39	0.56
1:G:2248:ARG:HG2	1:G:2286:LEU:HD11	1.87	0.56
1:C:1237:TRP:HD1	1:C:1611:HIS:HA	1.70	0.56
1:C:1671:ARG:HD2	1:C:1713:ASP:HB3	1.87	0.56
1:E:822:ARG:HA	1:E:1623:ARG:HH12	1.69	0.56
1:G:1944:GLU:HG3	1:G:2123:LEU:HD21	1.86	0.56
1:G:4000:MET:HA	1:G:4003:LEU:HB2	1.85	0.56
1:A:37:LEU:HD11	1:A:47:CYS:HB3	1.86	0.56
1:A:110:ARG:HH21	1:A:115:ARG:HH21	1.53	0.56
1:A:403:MET:HE2	1:A:448:LEU:HD23	1.88	0.56
1:A:537:CYS:HB2	1:A:567:VAL:HG13	1.86	0.56
1:C:551:LEU:HG	1:C:589:LEU:HD22	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:705:ASN:OD1	1:C:706:GLY:N	2.39	0.56
1:C:1093:GLU:HB2	1:C:1201:HIS:HB3	1.86	0.56
1:C:4214:LYS:HD2	1:C:4985:LEU:HD23	1.85	0.56
1:E:1237:TRP:HD1	1:E:1611:HIS:HA	1.69	0.56
1:E:4917:ASP:OD2	1:G:4892:ARG:NH2	2.37	0.56
1:G:110:ARG:HH21	1:G:115:ARG:HH21	1.52	0.56
1:G:1638:ALA:HA	1:G:1649:ASP:HA	1.87	0.56
1:G:1970:GLN:NE2	1:G:3645:PRO:O	2.33	0.56
1:C:4721:LYS:HG3	1:C:4741:LEU:HB3	1.88	0.56
1:E:1211:LEU:HG	1:E:1212:ARG:H	1.70	0.56
1:E:4928:LEU:O	1:E:4932:ILE:HD12	2.04	0.56
1:G:46:LEU:HD22	1:G:134:ASP:OD2	2.06	0.56
1:G:1211:LEU:HG	1:G:1212:ARG:H	1.71	0.56
1:G:2829:GLY:HA3	1:G:2933:ASN:HA	1.87	0.56
1:A:739:ALA:O	1:A:741:GLU:N	2.30	0.56
1:C:684:VAL:HG22	1:C:781:VAL:HA	1.87	0.56
1:E:551:LEU:HG	1:E:589:LEU:HD22	1.87	0.56
1:E:1802:ILE:HB	1:E:1804:LEU:HD12	1.86	0.56
1:G:4214:LYS:HD2	1:G:4985:LEU:HD23	1.86	0.56
1:A:1944:GLU:HG3	1:A:2123:LEU:HD21	1.86	0.56
1:A:3786:CYS:SG	1:A:3794:VAL:HG22	2.46	0.56
1:A:3993:LEU:HD13	1:A:4055:VAL:HG22	1.88	0.56
1:C:403:MET:HE2	1:C:448:LEU:HD23	1.88	0.56
2:D:25:HIS:CG	2:D:40:ARG:HE	2.24	0.56
1:E:1561:VAL:HG13	1:E:1562:ILE:HG22	1.88	0.56
1:G:548:VAL:HG11	1:G:582:HIS:HA	1.88	0.56
1:G:705:ASN:OD1	1:G:706:GLY:N	2.39	0.56
1:G:1802:ILE:HB	1:G:1804:LEU:HD12	1.86	0.56
1:G:3989:VAL:HG13	1:G:4023:MET:SD	2.45	0.56
1:A:46:LEU:HD22	1:A:134:ASP:OD2	2.05	0.56
1:A:768:PHE:HB3	1:A:771:PHE:HE2	1.71	0.56
1:A:1211:LEU:HG	1:A:1212:ARG:H	1.70	0.56
1:C:3993:LEU:HD13	1:C:4055:VAL:HG22	1.88	0.56
1:C:4849:TYR:O	1:C:4852:THR:HG22	2.06	0.56
1:E:3993:LEU:HD13	1:E:4055:VAL:HG22	1.87	0.56
1:G:1104:TRP:HH2	1:G:1226:PHE:HZ	1.54	0.56
1:G:3886:ARG:O	1:G:3890:LEU:HD13	2.06	0.56
1:A:2829:GLY:HA3	1:A:2933:ASN:HA	1.87	0.56
1:A:3841:VAL:HG12	1:A:3843:ASP:H	1.71	0.56
1:C:767:VAL:O	1:C:1475:THR:OG1	2.23	0.56
1:C:1211:LEU:HG	1:C:1212:ARG:H	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:548:VAL:HG11	1:E:582:HIS:HA	1.88	0.56
1:G:403:MET:HE2	1:G:448:LEU:HD23	1.88	0.56
1:G:551:LEU:HG	1:G:589:LEU:HD22	1.87	0.56
1:G:1109:LEU:HA	1:G:1120:LEU:HD13	1.87	0.56
1:A:684:VAL:HG22	1:A:781:VAL:HA	1.87	0.56
1:A:705:ASN:OD1	1:A:706:GLY:N	2.39	0.56
1:C:4664:LEU:O	1:C:4667:PRO:HD2	2.06	0.56
1:E:2756:ASN:OD1	1:E:2806:ARG:NH2	2.39	0.56
1:E:4721:LYS:HG3	1:E:4741:LEU:HB3	1.88	0.56
1:G:1077:ALA:HA	1:G:1236:THR:HG22	1.88	0.56
1:A:1078:GLU:HA	1:A:1237:TRP:CZ3	2.40	0.56
1:A:2756:ASN:OD1	1:A:2806:ARG:NH2	2.39	0.56
1:C:768:PHE:HB3	1:C:771:PHE:HE2	1.71	0.56
1:E:46:LEU:HD22	1:E:134:ASP:OD2	2.06	0.56
1:E:684:VAL:HG22	1:E:781:VAL:HA	1.87	0.56
1:E:2854:GLY:O	1:E:2856:ASN:ND2	2.39	0.56
2:F:25:HIS:CG	2:F:40:ARG:HE	2.24	0.56
1:G:1275:ARG:HH22	1:G:1599:MET:HE2	1.71	0.56
1:A:1077:ALA:HA	1:A:1236:THR:HG22	1.87	0.55
1:A:1561:VAL:HG13	1:A:1562:ILE:HG22	1.88	0.55
1:C:46:LEU:HD22	1:C:134:ASP:OD2	2.05	0.55
1:C:108:LEU:HB2	1:C:147:TRP:CZ3	2.40	0.55
1:E:705:ASN:OD1	1:E:706:GLY:N	2.39	0.55
1:G:3990:VAL:HG13	1:G:4051:SER:HB2	1.88	0.55
1:A:291:LEU:O	1:A:312:THR:OG1	2.23	0.55
1:A:3923:LEU:HD12	1:A:3961:VAL:HG13	1.89	0.55
1:A:3965:LEU:HD23	1:A:3968:TYR:HD2	1.71	0.55
1:A:4721:LYS:HG3	1:A:4741:LEU:HB3	1.88	0.55
1:C:2756:ASN:OD1	1:C:2806:ARG:NH2	2.39	0.55
1:E:636:ASN:OD1	1:E:637:LEU:N	2.39	0.55
1:E:1275:ARG:HH22	1:E:1599:MET:HE2	1.71	0.55
1:G:1207:ASP:O	1:G:1210:SER:OG	2.19	0.55
1:G:2927:LEU:HD23	1:G:2930:LEU:HD12	1.87	0.55
1:A:768:PHE:HB3	1:A:771:PHE:CE2	2.41	0.55
1:A:2854:GLY:O	1:A:2856:ASN:ND2	2.39	0.55
1:C:113:HIS:CE1	1:C:402:ARG:HB3	2.42	0.55
1:C:2277:ALA:O	1:C:2281:ILE:HG13	2.07	0.55
1:E:4228:ALA:HB2	1:G:4976:GLU:OE1	2.06	0.55
1:G:636:ASN:OD1	1:G:637:LEU:N	2.39	0.55
1:G:768:PHE:HB3	1:G:771:PHE:HE2	1.71	0.55
1:C:636:ASN:OD1	1:C:637:LEU:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:768:PHE:HB3	1:C:771:PHE:CE2	2.41	0.55
1:C:1561:VAL:HG13	1:C:1562:ILE:HG22	1.89	0.55
1:C:2287:ALA:O	1:C:2349:ASN:ND2	2.31	0.55
1:C:2465:ASP:O	1:C:2467:VAL:N	2.40	0.55
1:C:3841:VAL:HG12	1:C:3843:ASP:H	1.71	0.55
1:C:3923:LEU:HD12	1:C:3961:VAL:HG13	1.89	0.55
1:E:42:PHE:HA	1:E:447:ASP:OD2	2.07	0.55
1:E:403:MET:HE2	1:E:448:LEU:HD23	1.88	0.55
1:E:768:PHE:HB3	1:E:771:PHE:CE2	2.41	0.55
1:E:1079:LYS:HA	1:E:1082:THR:HG23	1.86	0.55
1:E:1671:ARG:HD2	1:E:1713:ASP:HB3	1.87	0.55
1:G:42:PHE:HA	1:G:447:ASP:OD2	2.06	0.55
1:G:3767:GLN:NE2	1:G:3805:LEU:O	2.37	0.55
1:A:627:PRO:HG3	2:B:89:GLY:CA	2.37	0.55
1:A:4807:PHE:CZ	1:G:4856:PHE:CE2	2.94	0.55
1:C:627:PRO:HG3	2:D:89:GLY:CA	2.36	0.55
1:E:627:PRO:HG3	2:F:89:GLY:CA	2.36	0.55
1:E:2277:ALA:O	1:E:2281:ILE:HG13	2.07	0.55
1:G:2907:PRO:O	1:G:2910:THR:OG1	2.19	0.55
2:H:23:VAL:HG12	2:H:104:LEU:HD12	1.88	0.55
1:A:636:ASN:OD1	1:A:637:LEU:N	2.39	0.55
1:A:2287:ALA:O	1:A:2349:ASN:ND2	2.31	0.55
1:A:2465:ASP:O	1:A:2467:VAL:N	2.40	0.55
1:A:4892:ARG:CZ	1:G:4917:ASP:OD2	2.55	0.55
2:B:25:HIS:CG	2:B:40:ARG:HE	2.24	0.55
1:C:274:LEU:HD12	1:C:278:GLN:HE21	1.71	0.55
1:G:3825:GLU:O	1:G:3827:GLY:N	2.37	0.55
1:A:42:PHE:HA	1:A:447:ASP:OD2	2.07	0.55
1:A:4664:LEU:O	1:A:4667:PRO:HD2	2.07	0.55
1:E:108:LEU:HB2	1:E:147:TRP:CZ3	2.42	0.55
1:E:572:PRO:HB3	1:E:609:CYS:HB3	1.89	0.55
1:E:768:PHE:HB3	1:E:771:PHE:HE2	1.71	0.55
1:E:1684:ALA:O	1:E:1687:SER:HB3	2.06	0.55
1:E:2865:VAL:O	1:E:2928:LYS:NZ	2.34	0.55
1:G:684:VAL:HG22	1:G:781:VAL:HA	1.87	0.55
1:A:606:LEU:O	1:A:617:ASN:ND2	2.40	0.55
1:C:1745:ILE:O	1:C:1746:THR:OG1	2.25	0.55
1:C:2854:GLY:O	1:C:2856:ASN:ND2	2.39	0.55
1:E:113:HIS:CE1	1:E:402:ARG:HB3	2.42	0.55
1:E:2287:ALA:O	1:E:2349:ASN:ND2	2.31	0.55
1:E:2465:ASP:O	1:E:2467:VAL:N	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3825:GLU:O	1:E:3827:GLY:N	2.34	0.55
1:E:3841:VAL:HG12	1:E:3843:ASP:H	1.72	0.55
1:G:103:TYR:CD1	1:G:152:PRO:HG3	2.41	0.55
1:G:1684:ALA:O	1:G:1687:SER:HB3	2.06	0.55
1:G:2431:ASP:O	1:G:2435:ARG:HG2	2.07	0.55
1:G:2854:GLY:O	1:G:2856:ASN:ND2	2.39	0.55
1:A:548:VAL:HG11	1:A:582:HIS:HA	1.88	0.55
1:A:1275:ARG:HH22	1:A:1599:MET:HE2	1.71	0.55
1:A:2277:ALA:O	1:A:2281:ILE:HG13	2.06	0.55
1:A:4849:TYR:O	1:A:4852:THR:HG22	2.06	0.55
1:C:606:LEU:O	1:C:617:ASN:ND2	2.40	0.55
1:C:1077:ALA:HA	1:C:1236:THR:HG22	1.88	0.55
1:E:590:LEU:HB2	1:E:599:VAL:HG11	1.89	0.55
1:E:3965:LEU:HD23	1:E:3968:TYR:HD2	1.71	0.55
1:A:572:PRO:HB3	1:A:609:CYS:HB3	1.89	0.55
1:A:1109:LEU:HA	1:A:1120:LEU:HD13	1.89	0.55
1:A:4051:SER:OG	1:A:4054:ASN:OD1	2.25	0.55
1:C:548:VAL:HG11	1:C:582:HIS:HA	1.88	0.55
1:C:1684:ALA:O	1:C:1687:SER:HB3	2.07	0.55
1:G:606:LEU:O	1:G:617:ASN:ND2	2.40	0.55
1:A:76:ARG:CZ	1:C:3844:LEU:HD21	2.37	0.54
1:A:2347:GLU:CD	1:A:3852:LYS:HE3	2.32	0.54
1:C:42:PHE:HA	1:C:447:ASP:OD2	2.07	0.54
1:C:1243:PRO:HD2	1:C:1458:HIS:CB	2.34	0.54
1:G:2465:ASP:O	1:G:2467:VAL:N	2.40	0.54
1:G:4029:SER:HA	1:G:4032:GLU:HG3	1.89	0.54
1:A:274:LEU:HD12	1:A:278:GLN:HE21	1.71	0.54
1:C:572:PRO:HB3	1:C:609:CYS:HB3	1.90	0.54
1:C:590:LEU:HB2	1:C:599:VAL:HG11	1.89	0.54
1:E:919:ASN:HA	1:E:922:LEU:HB2	1.88	0.54
1:E:3937:TYR:HA	1:E:3940:LYS:NZ	2.22	0.54
1:E:3999:MET:O	1:E:4003:LEU:N	2.37	0.54
1:G:1671:ARG:HD2	1:G:1713:ASP:HB3	1.87	0.54
1:E:274:LEU:HD12	1:E:278:GLN:HE21	1.71	0.54
1:E:606:LEU:O	1:E:617:ASN:ND2	2.39	0.54
1:E:4664:LEU:O	1:E:4667:PRO:HD2	2.07	0.54
1:G:590:LEU:HB2	1:G:599:VAL:HG11	1.89	0.54
1:G:768:PHE:HB3	1:G:771:PHE:CE2	2.41	0.54
1:G:1514:LEU:O	1:G:1532:ASN:N	2.36	0.54
1:G:3889:GLN:HE22	1:G:3963:ASN:HB3	1.71	0.54
1:A:1745:ILE:O	1:A:1746:THR:OG1	2.25	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4055:VAL:HA	1:A:4058:ILE:HG12	1.89	0.54
1:C:2431:ASP:O	1:C:2435:ARG:HG2	2.07	0.54
1:C:4051:SER:OG	1:C:4054:ASN:OD1	2.25	0.54
1:C:4917:ASP:OD2	1:E:4892:ARG:NH2	2.41	0.54
1:E:2829:GLY:HA3	1:E:2933:ASN:HA	1.87	0.54
1:E:3989:VAL:HG13	1:E:4023:MET:SD	2.48	0.54
1:G:1561:VAL:HG13	1:G:1562:ILE:HG22	1.89	0.54
1:C:4055:VAL:HA	1:C:4058:ILE:HG12	1.89	0.54
1:E:1579:MET:O	1:E:1582:SER:OG	2.17	0.54
1:G:33:LEU:HD12	1:G:53:SER:HB2	1.89	0.54
1:A:103:TYR:CD1	1:A:152:PRO:HG3	2.42	0.54
1:A:1684:ALA:O	1:A:1687:SER:HB3	2.06	0.54
1:A:2431:ASP:O	1:A:2435:ARG:HG2	2.07	0.54
1:A:3932:ASP:OD1	1:G:76:ARG:HG2	2.08	0.54
1:E:103:TYR:CD1	1:E:152:PRO:HG3	2.43	0.54
1:G:111:HIS:HD2	1:G:114:SER:H	1.55	0.54
1:G:572:PRO:HB3	1:G:609:CYS:HB3	1.90	0.54
1:G:627:PRO:HG3	2:H:89:GLY:CA	2.38	0.54
1:G:2277:ALA:O	1:G:2281:ILE:HG13	2.07	0.54
1:G:3965:LEU:HB3	1:G:4026:MET:HE3	1.90	0.54
1:G:4677:LEU:HD22	1:G:4711:PHE:CE1	2.42	0.54
1:G:4980:LEU:HA	1:G:4984:ASN:HB3	1.89	0.54
2:H:11:ASP:OD2	2:H:68:VAL:HB	2.06	0.54
2:H:71:ARG:NH2	2:H:100:ASP:OD2	2.40	0.54
1:A:157:ARG:HH22	1:A:164:ARG:HD2	1.73	0.54
1:A:1663:HIS:O	1:A:1666:THR:OG1	2.19	0.54
1:A:3999:MET:O	1:A:4003:LEU:N	2.37	0.54
1:A:4917:ASP:OD2	1:C:4892:ARG:NH2	2.41	0.54
1:C:103:TYR:CD1	1:C:152:PRO:HG3	2.42	0.54
1:C:3423:TRP:O	1:C:3428:ASN:N	2.41	0.54
1:E:33:LEU:HD12	1:E:53:SER:HB2	1.89	0.54
1:E:157:ARG:HH22	1:E:164:ARG:HD2	1.73	0.54
1:E:4901:ILE:HG21	1:E:4913:ARG:NH2	2.23	0.54
1:G:4030:LEU:HG	1:G:4040:ILE:HD11	1.89	0.54
1:A:113:HIS:CE1	1:A:402:ARG:HB3	2.42	0.54
1:A:4683:PHE:HE2	1:A:5017:ARG:HD2	1.73	0.54
1:C:76:ARG:CZ	1:E:3844:LEU:HD21	2.38	0.54
1:C:2827:ARG:HB2	1:C:2934:GLY:HA3	1.90	0.54
1:G:274:LEU:HD12	1:G:278:GLN:HE21	1.71	0.54
1:G:1243:PRO:HD2	1:G:1458:HIS:CB	2.38	0.54
1:G:3719:ASP:HB2	1:G:3793:MET:HE1	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3825:GLU:C	1:G:3827:GLY:H	2.16	0.54
1:A:2902:HIS:CG	1:A:2903:PRO:HD2	2.43	0.54
1:A:3423:TRP:O	1:A:3428:ASN:N	2.41	0.54
1:C:3965:LEU:HD23	1:C:3968:TYR:HD2	1.72	0.54
1:E:4051:SER:OG	1:E:4054:ASN:OD1	2.25	0.54
1:G:113:HIS:CE1	1:G:402:ARG:HB3	2.42	0.54
1:A:33:LEU:HD12	1:A:53:SER:HB2	1.90	0.54
1:A:767:VAL:O	1:A:1475:THR:OG1	2.24	0.54
1:C:157:ARG:HH22	1:C:164:ARG:HD2	1.73	0.54
1:C:2822:THR:OG1	1:C:2938:THR:OG1	2.19	0.54
1:C:4735:GLU:HA	1:C:4738:ALA:HB3	1.90	0.54
1:E:537:CYS:SG	1:E:571:SER:HB3	2.48	0.54
1:E:1104:TRP:HH2	1:E:1226:PHE:HZ	1.54	0.54
1:E:2431:ASP:O	1:E:2435:ARG:HG2	2.07	0.54
1:E:3923:LEU:HD12	1:E:3961:VAL:HG13	1.89	0.54
1:G:965:TYR:CZ	1:G:967:PRO:HG3	2.43	0.54
1:A:965:TYR:CZ	1:A:967:PRO:HG3	2.43	0.53
1:E:111:HIS:HD2	1:E:114:SER:H	1.56	0.53
1:G:663:TYR:OH	1:G:665:GLU:OE2	2.04	0.53
1:G:699:GLY:H	1:G:1647:CYS:HB3	1.72	0.53
1:G:3826:VAL:HA	1:G:3906:GLN:HE22	1.72	0.53
1:G:4901:ILE:HG21	1:G:4913:ARG:NH2	2.22	0.53
1:A:634:GLN:HB3	1:A:1640:HIS:CE1	2.44	0.53
1:C:2927:LEU:HD23	1:C:2930:LEU:HD12	1.90	0.53
1:E:1109:LEU:HA	1:E:1120:LEU:HD13	1.89	0.53
1:G:2244:ARG:HB2	1:G:2283:ASN:HD21	1.72	0.53
1:A:590:LEU:HB2	1:A:599:VAL:HG11	1.89	0.53
1:A:1104:TRP:HH2	1:A:1226:PHE:HZ	1.56	0.53
1:A:3989:VAL:HG13	1:A:4023:MET:SD	2.48	0.53
1:C:965:TYR:CZ	1:C:967:PRO:HG3	2.43	0.53
1:E:2244:ARG:HB2	1:E:2283:ASN:HD21	1.73	0.53
1:E:2902:HIS:CG	1:E:2903:PRO:HD2	2.43	0.53
1:G:294:THR:HG22	1:G:296:ASP:H	1.74	0.53
1:A:3937:TYR:HA	1:A:3940:LYS:NZ	2.22	0.53
1:A:3969:ILE:HD13	1:A:4030:LEU:HD13	1.90	0.53
1:A:4712:PRO:O	1:A:4718:LYS:NZ	2.32	0.53
1:C:634:GLN:HB3	1:C:1640:HIS:CE1	2.43	0.53
1:C:3969:ILE:HD13	1:C:4030:LEU:HD13	1.91	0.53
1:G:3768:SER:O	1:G:3772:THR:OG1	2.22	0.53
1:G:4677:LEU:HD22	1:G:4711:PHE:CZ	2.43	0.53
1:A:76:ARG:HG2	1:C:3932:ASP:OD1	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:537:CYS:SG	1:C:571:SER:HB3	2.48	0.53
1:C:699:GLY:H	1:C:1647:CYS:HB3	1.73	0.53
1:C:1275:ARG:HH22	1:C:1599:MET:HE2	1.71	0.53
1:G:1237:TRP:CD1	1:G:1611:HIS:HA	2.44	0.53
1:G:2902:HIS:CG	1:G:2903:PRO:HD2	2.44	0.53
1:A:3844:LEU:HD21	1:G:76:ARG:CZ	2.38	0.53
1:C:1104:TRP:HH2	1:C:1226:PHE:HZ	1.56	0.53
1:E:3423:TRP:O	1:E:3428:ASN:N	2.41	0.53
1:E:3969:ILE:HD13	1:E:4030:LEU:HD13	1.91	0.53
1:E:4712:PRO:O	1:E:4718:LYS:NZ	2.32	0.53
1:G:1947:CYS:SG	1:G:2127:GLN:NE2	2.82	0.53
1:A:294:THR:HG22	1:A:296:ASP:H	1.74	0.53
1:A:2907:PRO:O	1:A:2910:THR:OG1	2.18	0.53
1:A:2927:LEU:HD23	1:A:2930:LEU:HD12	1.90	0.53
1:C:1109:LEU:HA	1:C:1120:LEU:HD13	1.90	0.53
1:C:3825:GLU:O	1:C:3827:GLY:N	2.34	0.53
1:E:2827:ARG:HB2	1:E:2934:GLY:HA3	1.90	0.53
1:G:2793:PRO:O	1:G:2796:THR:OG1	2.24	0.53
1:A:111:HIS:HD2	1:A:114:SER:H	1.56	0.53
1:A:537:CYS:SG	1:A:571:SER:HB3	2.48	0.53
1:A:1100:MET:O	1:A:1126:GLY:N	2.38	0.53
1:A:3955:MET:SD	1:A:4019:LEU:HD13	2.49	0.53
1:C:76:ARG:HG2	1:E:3932:ASP:OD1	2.08	0.53
1:C:4974:GLY:O	1:C:4977:THR:OG1	2.25	0.53
1:E:3959:LYS:HG3	1:E:4022:ASP:OD2	2.09	0.53
1:G:102:LEU:HB2	1:G:105:HIS:CE1	2.44	0.53
1:G:537:CYS:SG	1:G:571:SER:HB3	2.49	0.53
1:G:634:GLN:HB3	1:G:1640:HIS:CE1	2.44	0.53
1:A:495:ASN:HA	1:A:553:ARG:HH12	1.74	0.53
1:C:70:GLU:HB2	1:C:108:LEU:HD23	1.91	0.53
1:C:3937:TYR:HA	1:C:3940:LYS:NZ	2.23	0.53
1:C:3989:VAL:HG13	1:C:4023:MET:SD	2.48	0.53
1:E:1240:LYS:HD3	1:E:1610:ASN:OD1	2.08	0.53
1:E:2927:LEU:HD23	1:E:2930:LEU:HD12	1.90	0.53
1:E:3962:PHE:O	1:E:3966:THR:HG23	2.09	0.53
1:A:4731:ILE:HG23	1:A:4732:PHE:CD2	2.44	0.53
1:C:445:LEU:O	1:C:449:ILE:HG13	2.09	0.53
1:C:3955:MET:SD	1:C:4019:LEU:HD13	2.49	0.53
1:E:965:TYR:CZ	1:E:967:PRO:HG3	2.44	0.53
1:G:157:ARG:HH22	1:G:164:ARG:HD2	1.73	0.53
1:A:445:LEU:O	1:A:449:ILE:HG13	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:622:THR:O	1:A:627:PRO:HD3	2.09	0.52
1:C:33:LEU:HD12	1:C:53:SER:HB2	1.90	0.52
1:C:3959:LYS:HG3	1:C:4022:ASP:OD2	2.09	0.52
1:C:3962:PHE:O	1:C:3966:THR:HG23	2.09	0.52
1:E:699:GLY:H	1:E:1647:CYS:HB3	1.74	0.52
1:E:1610:ASN:HA	1:E:1652:GLU:OE2	2.09	0.52
1:A:1229:ASN:HB3	1:A:1827:ARG:HH11	1.74	0.52
1:A:1237:TRP:CD1	1:A:1611:HIS:HA	2.44	0.52
1:A:1514:LEU:O	1:A:1532:ASN:N	2.36	0.52
1:C:1229:ASN:HB3	1:C:1827:ARG:HH11	1.74	0.52
1:C:2855:TYR:CD2	1:C:2857:PRO:HD3	2.44	0.52
1:C:4026:MET:O	1:C:4029:SER:OG	2.21	0.52
1:E:284:HIS:HE2	1:E:286:THR:HG1	1.56	0.52
1:E:4055:VAL:HA	1:E:4058:ILE:HG12	1.89	0.52
1:E:4779:LYS:O	1:E:4783:ILE:HG12	2.09	0.52
1:G:4239:GLU:OE2	1:G:5014:TYR:OH	2.22	0.52
1:A:102:LEU:HB2	1:A:105:HIS:CE1	2.45	0.52
1:C:102:LEU:HB2	1:C:105:HIS:CE1	2.45	0.52
1:C:111:HIS:HD2	1:C:114:SER:H	1.55	0.52
1:C:2902:HIS:CG	1:C:2903:PRO:HD2	2.43	0.52
1:E:445:LEU:O	1:E:449:ILE:HG13	2.09	0.52
1:G:3999:MET:HE3	1:G:4003:LEU:HD11	1.90	0.52
1:G:4658:ILE:HG22	1:G:4792:LEU:HB3	1.91	0.52
1:G:4856:PHE:O	1:G:4860:ARG:NH1	2.42	0.52
1:A:2827:ARG:HB2	1:A:2934:GLY:HA3	1.90	0.52
1:C:750:LEU:O	1:C:752:VAL:N	2.43	0.52
1:C:4731:ILE:HG23	1:C:4732:PHE:CD2	2.44	0.52
1:E:705:ASN:ND2	1:E:782:SER:OG	2.43	0.52
1:G:647:ASN:HB2	1:G:822:ARG:O	2.10	0.52
1:G:1101:ARG:NH1	1:G:1115:LEU:O	2.43	0.52
1:A:600:LEU:HD21	1:A:1666:THR:HG22	1.92	0.52
1:A:623:GLU:OE2	2:B:89:GLY:N	2.42	0.52
1:C:2244:ARG:HB2	1:C:2283:ASN:HD21	1.74	0.52
1:E:70:GLU:HB2	1:E:108:LEU:HD23	1.91	0.52
1:E:495:ASN:HA	1:E:553:ARG:HH12	1.74	0.52
1:E:1101:ARG:NH1	1:E:1115:LEU:O	2.42	0.52
1:E:1237:TRP:CD1	1:E:1611:HIS:HA	2.45	0.52
1:E:3955:MET:SD	1:E:4019:LEU:HD13	2.49	0.52
1:E:4683:PHE:HE2	1:E:5017:ARG:HD2	1.73	0.52
1:E:4934:GLY:HA2	1:E:4937:ILE:HD12	1.90	0.52
1:C:622:THR:O	1:C:627:PRO:HD3	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:705:ASN:ND2	1:C:782:SER:OG	2.43	0.52
1:C:1237:TRP:CD1	1:C:1611:HIS:HA	2.44	0.52
1:E:1961:PHE:CE2	1:E:2066:LEU:HD22	2.45	0.52
1:E:4937:ILE:HD12	1:G:4937:ILE:HD13	1.91	0.52
1:E:4961:CYS:HB3	1:E:4963:ILE:HG12	1.92	0.52
1:G:445:LEU:O	1:G:449:ILE:HG13	2.09	0.52
1:G:2124:LEU:HG	1:G:3673:MET:HE3	1.92	0.52
1:A:1101:ARG:NH1	1:A:1115:LEU:O	2.42	0.52
1:A:1240:LYS:HD3	1:A:1610:ASN:OD1	2.10	0.52
1:A:1815:LEU:HB3	1:A:1865:MET:HE1	1.91	0.52
1:A:3962:PHE:O	1:A:3966:THR:HG23	2.09	0.52
1:C:3836:MET:O	1:C:3925:ARG:NH2	2.43	0.52
1:C:4683:PHE:HE2	1:C:5017:ARG:HD2	1.73	0.52
1:E:623:GLU:OE2	2:F:89:GLY:N	2.43	0.52
1:E:4914:VAL:HG23	1:G:4888:TYR:CG	2.42	0.52
1:G:70:GLU:HB2	1:G:108:LEU:HD23	1.91	0.52
1:G:465:GLN:NE2	1:G:3712:GLU:OE1	2.43	0.52
1:A:35:LEU:HA	1:A:51:PRO:HA	1.92	0.52
1:A:750:LEU:O	1:A:752:VAL:N	2.43	0.52
1:A:3496:LYS:O	1:A:3513:THR:N	2.43	0.52
1:C:623:GLU:OE2	2:D:89:GLY:N	2.43	0.52
1:C:1130:GLN:HA	1:C:1138:PRO:HA	1.92	0.52
1:E:634:GLN:HB3	1:E:1640:HIS:CE1	2.44	0.52
1:G:695:TYR:CD2	1:G:1240:LYS:HE3	2.45	0.52
1:G:750:LEU:O	1:G:752:VAL:N	2.43	0.52
1:G:2855:TYR:CD2	1:G:2857:PRO:HD3	2.45	0.52
1:G:3966:THR:HG22	1:G:4026:MET:HA	1.92	0.52
1:A:647:ASN:HB2	1:A:822:ARG:O	2.09	0.52
1:E:294:THR:HG22	1:E:296:ASP:H	1.75	0.52
1:E:750:LEU:O	1:E:752:VAL:N	2.43	0.52
1:E:4731:ILE:HG23	1:E:4732:PHE:CD2	2.44	0.52
1:E:4735:GLU:HA	1:E:4738:ALA:HB3	1.92	0.52
1:G:2745:VAL:HG21	1:G:2818:ALA:HB2	1.92	0.52
1:G:3804:ILE:HG22	1:G:3812:VAL:HG11	1.92	0.52
1:G:4731:ILE:HG23	1:G:4732:PHE:CD2	2.44	0.52
1:A:2855:TYR:CD2	1:A:2857:PRO:HD3	2.45	0.52
1:A:3825:GLU:O	1:A:3827:GLY:N	2.35	0.52
1:C:495:ASN:HA	1:C:553:ARG:HH12	1.74	0.52
1:C:3496:LYS:O	1:C:3513:THR:N	2.43	0.52
1:E:1815:LEU:HB3	1:E:1865:MET:HE1	1.92	0.52
1:G:495:ASN:HA	1:G:553:ARG:HH12	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1100:MET:O	1:G:1126:GLY:N	2.39	0.52
1:A:76:ARG:HE	1:C:3844:LEU:CD2	2.23	0.51
1:A:284:HIS:HE2	1:A:286:THR:HG1	1.53	0.51
1:A:1207:ASP:O	1:A:1210:SER:OG	2.19	0.51
1:A:1961:PHE:CE2	1:A:2066:LEU:HD22	2.45	0.51
1:A:3959:LYS:HG3	1:A:4022:ASP:OD2	2.09	0.51
1:C:35:LEU:HA	1:C:51:PRO:HA	1.93	0.51
1:C:1291:LEU:HB3	1:C:1550:PRO:HG2	1.92	0.51
1:E:1623:ARG:NH1	1:E:1626:TRP:HE1	2.06	0.51
1:G:4909:TYR:O	1:G:4913:ARG:N	2.43	0.51
1:A:699:GLY:H	1:A:1647:CYS:HB3	1.74	0.51
1:A:3836:MET:O	1:A:3925:ARG:NH2	2.43	0.51
1:C:600:LEU:HD21	1:C:1666:THR:HG22	1.92	0.51
1:E:1491:ASN:H	1:E:1493:TYR:HA	1.76	0.51
1:E:3496:LYS:O	1:E:3513:THR:N	2.43	0.51
1:G:2158:CYS:SG	1:G:2184:ASN:ND2	2.80	0.51
1:A:1598:GLN:O	1:A:1600:LEU:N	2.44	0.51
1:A:2341:VAL:HG13	1:A:2342:ASN:N	2.22	0.51
2:B:23:VAL:HG12	2:B:104:LEU:HD12	1.93	0.51
1:C:294:THR:HG22	1:C:296:ASP:H	1.75	0.51
1:C:1663:HIS:O	1:C:1666:THR:OG1	2.19	0.51
1:G:158:SER:H	1:G:161:GLU:HG3	1.75	0.51
1:G:583:ILE:HD12	1:G:620:LEU:HD22	1.92	0.51
1:G:622:THR:O	1:G:627:PRO:HD3	2.09	0.51
1:G:3971:GLY:HA2	1:G:5005:GLY:HA3	1.92	0.51
1:G:4928:LEU:O	1:G:4932:ILE:HD12	2.08	0.51
1:A:70:GLU:HB2	1:A:108:LEU:HD23	1.91	0.51
1:A:4239:GLU:OE2	1:A:5014:TYR:OH	2.18	0.51
1:A:4779:LYS:O	1:A:4783:ILE:HG12	2.10	0.51
1:C:647:ASN:HB2	1:C:822:ARG:O	2.10	0.51
1:C:1815:LEU:HB3	1:C:1865:MET:HE1	1.92	0.51
1:E:33:LEU:HD23	1:E:35:LEU:HD23	1.93	0.51
1:E:35:LEU:HA	1:E:51:PRO:HA	1.92	0.51
1:E:622:THR:O	1:E:627:PRO:HD3	2.09	0.51
1:E:647:ASN:HB2	1:E:822:ARG:O	2.10	0.51
1:E:1100:MET:O	1:E:1126:GLY:N	2.39	0.51
1:A:583:ILE:HD12	1:A:620:LEU:HD22	1.92	0.51
1:A:1291:LEU:HB3	1:A:1550:PRO:HG2	1.92	0.51
1:A:1453:VAL:HG12	1:A:1454:THR:O	2.11	0.51
1:C:78:LEU:HD11	1:C:147:TRP:CD2	2.45	0.51
1:E:1111:PRO:HG3	1:E:1609:PRO:HD3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2158:CYS:SG	1:E:2184:ASN:ND2	2.80	0.51
1:G:3826:VAL:HA	1:G:3906:GLN:NE2	2.25	0.51
1:G:3980:LEU:HD21	1:G:3985:LEU:HD13	1.91	0.51
1:A:663:TYR:OH	1:A:665:GLU:OE2	2.04	0.51
1:A:1808:ARG:HA	1:A:1848:LEU:HD21	1.93	0.51
1:A:4217:PHE:CZ	1:A:4234:PHE:HA	2.46	0.51
1:A:4888:TYR:HB2	1:G:4914:VAL:CG2	2.41	0.51
1:C:33:LEU:HD23	1:C:35:LEU:HD23	1.93	0.51
1:C:1132:TRP:CD1	1:C:1136:SER:HA	2.46	0.51
1:C:1598:GLN:O	1:C:1600:LEU:N	2.44	0.51
1:C:3999:MET:O	1:C:4003:LEU:N	2.37	0.51
1:E:583:ILE:HD12	1:E:620:LEU:HD22	1.93	0.51
1:E:668:VAL:HA	1:E:789:VAL:HG12	1.93	0.51
2:F:23:VAL:HG12	2:F:104:LEU:HD12	1.93	0.51
1:G:233:ILE:O	1:G:257:ARG:NH1	2.44	0.51
1:G:705:ASN:ND2	1:G:782:SER:OG	2.42	0.51
1:G:721:LEU:HD11	1:G:728:ARG:HB2	1.93	0.51
1:G:1291:LEU:HB3	1:G:1550:PRO:HG2	1.92	0.51
1:G:1293:LEU:HD23	1:G:1584:ARG:HG2	1.93	0.51
2:H:25:HIS:CD2	2:H:104:LEU:HD11	2.46	0.51
1:A:705:ASN:ND2	1:A:782:SER:OG	2.43	0.51
1:A:1937:LEU:HD12	1:A:2116:LEU:HB2	1.93	0.51
1:A:4222:VAL:HG11	1:A:4950:VAL:HA	1.93	0.51
1:C:919:ASN:HA	1:C:922:LEU:HB2	1.93	0.51
1:C:1111:PRO:HG3	1:C:1609:PRO:HD3	1.93	0.51
1:C:4712:PRO:O	1:C:4718:LYS:NZ	2.31	0.51
1:E:1204:LEU:HD22	1:E:1226:PHE:CD2	2.46	0.51
1:E:3836:MET:O	1:E:3925:ARG:NH2	2.44	0.51
1:G:1132:TRP:CD1	1:G:1136:SER:HA	2.45	0.51
1:G:1229:ASN:HB3	1:G:1827:ARG:HH11	1.74	0.51
1:G:2883:HIS:CE1	1:G:2911:LEU:HD11	2.45	0.51
1:A:4735:GLU:HA	1:A:4738:ALA:HB3	1.92	0.51
1:C:20:VAL:O	1:C:67:PHE:N	2.42	0.51
1:C:695:TYR:CD2	1:C:1240:LYS:HE3	2.45	0.51
1:E:1207:ASP:O	1:E:1210:SER:OG	2.18	0.51
1:E:1293:LEU:HD23	1:E:1584:ARG:HG2	1.93	0.51
1:E:3769:ARG:O	1:E:3773:ARG:NH1	2.41	0.51
1:E:4222:VAL:HG11	1:E:4950:VAL:HA	1.92	0.51
1:G:14:LEU:HD21	1:G:204:PRO:HG3	1.92	0.51
1:G:668:VAL:HA	1:G:789:VAL:HG12	1.92	0.51
1:G:1815:LEU:HB3	1:G:1865:MET:HE1	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2142:TYR:CD2	1:G:2197:LEU:HD12	2.46	0.51
1:G:3919:THR:HG21	1:G:3968:TYR:HE2	1.76	0.51
1:G:4956:THR:O	1:G:4965:SER:N	2.41	0.51
1:A:78:LEU:HD11	1:A:147:TRP:CD2	2.46	0.51
1:A:158:SER:H	1:A:161:GLU:HG3	1.76	0.51
1:C:400:ALA:O	1:C:404:ILE:HG13	2.11	0.51
1:C:1101:ARG:NH1	1:C:1115:LEU:O	2.43	0.51
1:C:1579:MET:O	1:C:1582:SER:OG	2.17	0.51
1:C:1937:LEU:HD12	1:C:2116:LEU:HB2	1.93	0.51
1:C:4222:VAL:HG11	1:C:4950:VAL:HA	1.93	0.51
1:C:4779:LYS:O	1:C:4783:ILE:HG12	2.09	0.51
1:C:4961:CYS:HB3	1:C:4963:ILE:HG12	1.92	0.51
1:E:600:LEU:HD21	1:E:1666:THR:HG22	1.92	0.51
1:E:2855:TYR:CD2	1:E:2857:PRO:HD3	2.45	0.51
1:G:2287:ALA:O	1:G:2349:ASN:ND2	2.30	0.51
1:A:2244:ARG:HB2	1:A:2283:ASN:HD21	1.74	0.51
1:A:4934:GLY:HA3	1:C:4937:ILE:CG1	2.34	0.51
2:B:74:LEU:HD23	2:B:76:ILE:HD11	1.93	0.51
1:C:1100:MET:O	1:C:1126:GLY:N	2.39	0.51
1:C:1961:PHE:CE2	1:C:2066:LEU:HD22	2.46	0.51
1:C:4217:PHE:CZ	1:C:4234:PHE:HA	2.46	0.51
1:E:1033:ARG:HA	1:E:1036:ARG:HG2	1.94	0.51
1:E:1078:GLU:HG3	1:E:1237:TRP:CH2	2.45	0.51
1:E:1141:ARG:NH2	1:E:1167:GLU:OE1	2.44	0.51
1:E:1229:ASN:CG	1:E:1827:ARG:HH11	2.19	0.51
1:E:1291:LEU:HB3	1:E:1550:PRO:HG2	1.92	0.51
1:E:1514:LEU:O	1:E:1532:ASN:N	2.36	0.51
1:E:1663:HIS:O	1:E:1666:THR:OG1	2.19	0.51
1:E:1961:PHE:CD2	1:E:2066:LEU:HD22	2.46	0.51
1:E:4217:PHE:CZ	1:E:4234:PHE:HA	2.47	0.51
1:G:78:LEU:HD11	1:G:147:TRP:CD2	2.46	0.51
1:G:1453:VAL:HG12	1:G:1454:THR:O	2.11	0.51
1:G:1775:HIS:ND1	1:G:1775:HIS:O	2.44	0.51
1:G:1866:ILE:HG23	1:G:1927:LEU:HB2	1.93	0.51
1:A:1033:ARG:HA	1:A:1036:ARG:HG2	1.93	0.50
1:A:2340:PHE:HB2	1:A:2435:ARG:HB3	1.94	0.50
1:A:4055:VAL:HG11	1:A:4163:PHE:HZ	1.77	0.50
1:A:4914:VAL:CG2	1:C:4888:TYR:HB2	2.41	0.50
1:C:1190:PRO:HG2	1:C:1226:PHE:HE2	1.76	0.50
1:C:1853:ILE:O	1:C:1854:PHE:HB2	2.11	0.50
1:C:3674:ILE:HD13	1:C:3677:LEU:HD12	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4735:GLU:O	1:C:4739:GLU:N	2.42	0.50
1:E:1775:HIS:ND1	1:E:1775:HIS:O	2.44	0.50
1:E:1853:ILE:O	1:E:1854:PHE:HB2	2.12	0.50
1:E:3992:PHE:HB3	1:E:3996:PHE:CE2	2.47	0.50
1:G:35:LEU:HA	1:G:51:PRO:HA	1.93	0.50
1:G:1130:GLN:HA	1:G:1138:PRO:HA	1.93	0.50
1:G:1293:LEU:HD21	1:G:1585:LYS:HZ3	1.76	0.50
1:G:4963:ILE:HD12	1:G:5030:LYS:NZ	2.26	0.50
1:A:4961:CYS:HB3	1:A:4963:ILE:HG12	1.92	0.50
1:E:721:LEU:HD11	1:E:728:ARG:HB2	1.92	0.50
1:E:1453:VAL:HG12	1:E:1454:THR:O	2.11	0.50
1:E:1937:LEU:HD12	1:E:2116:LEU:HB2	1.93	0.50
1:G:600:LEU:HD21	1:G:1666:THR:HG22	1.92	0.50
1:G:1033:ARG:HA	1:G:1036:ARG:HG2	1.93	0.50
1:G:4683:PHE:HE2	1:G:5017:ARG:HD2	1.76	0.50
1:A:646:PRO:HA	1:A:823:LEU:HA	1.94	0.50
1:A:3850:GLN:HG3	1:A:3850:GLN:O	2.10	0.50
1:C:668:VAL:HA	1:C:789:VAL:HG12	1.93	0.50
1:C:739:ALA:C	1:C:741:GLU:H	2.18	0.50
1:C:4055:VAL:HG11	1:C:4163:PHE:HZ	1.76	0.50
2:D:23:VAL:HG12	2:D:104:LEU:HD12	1.93	0.50
1:E:400:ALA:O	1:E:404:ILE:HG13	2.11	0.50
1:E:4055:VAL:HG11	1:E:4163:PHE:HZ	1.76	0.50
1:G:291:LEU:O	1:G:312:THR:OG1	2.24	0.50
1:G:580:GLU:HB3	1:G:620:LEU:HD11	1.94	0.50
1:G:1623:ARG:NH1	1:G:1626:TRP:HE1	2.07	0.50
1:G:1808:ARG:HA	1:G:1848:LEU:HD21	1.93	0.50
1:A:721:LEU:HD11	1:A:728:ARG:HB2	1.93	0.50
1:A:1078:GLU:HG3	1:A:1237:TRP:CH2	2.46	0.50
1:A:1436:SER:HA	1:A:1516:ILE:HA	1.93	0.50
1:A:2158:CYS:SG	1:A:2184:ASN:ND2	2.80	0.50
1:A:4677:LEU:HD22	1:A:4711:PHE:CE1	2.46	0.50
1:A:4930:ALA:HB2	1:C:4933:GLN:HG2	1.93	0.50
1:C:1288:PHE:HE2	1:C:1460:HIS:HA	1.77	0.50
1:E:2803:GLU:HA	1:E:2806:ARG:HB2	1.94	0.50
1:E:3674:ILE:HD13	1:E:3677:LEU:HD12	1.93	0.50
1:G:516:LYS:HG3	1:G:555:GLU:OE2	2.11	0.50
1:G:739:ALA:C	1:G:741:GLU:H	2.18	0.50
1:G:1111:PRO:HG3	1:G:1609:PRO:HD3	1.92	0.50
1:G:1141:ARG:NH2	1:G:1167:GLU:OE1	2.44	0.50
1:G:3806:ASN:H	1:G:3890:LEU:HD23	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1141:ARG:NH2	1:A:1167:GLU:OE1	2.45	0.50
1:A:1961:PHE:CD2	1:A:2066:LEU:HD22	2.46	0.50
1:A:2822:THR:OG1	1:A:2938:THR:OG1	2.19	0.50
1:A:4837:LEU:HD11	1:A:4932:ILE:HG23	1.93	0.50
1:C:1207:ASP:O	1:C:1210:SER:OG	2.19	0.50
1:C:1453:VAL:HG12	1:C:1454:THR:O	2.11	0.50
1:C:1623:ARG:NH1	1:C:1626:TRP:HE1	2.06	0.50
1:C:3992:PHE:HB3	1:C:3996:PHE:CE2	2.47	0.50
1:C:4806:ASN:O	1:C:4809:PHE:HB3	2.12	0.50
1:C:4914:VAL:CG2	1:E:4888:TYR:HB2	2.42	0.50
1:E:516:LYS:HG3	1:E:555:GLU:OE2	2.11	0.50
1:E:638:ILE:HD12	1:E:678:GLN:NE2	2.27	0.50
1:E:1744:ALA:CB	1:E:1745:ILE:HA	2.41	0.50
1:E:4677:LEU:HD22	1:E:4711:PHE:CE1	2.47	0.50
1:G:401:ALA:HA	1:G:404:ILE:HD12	1.93	0.50
1:G:716:PHE:O	1:G:737:LEU:HG	2.12	0.50
1:G:1598:GLN:O	1:G:1600:LEU:N	2.44	0.50
1:A:179:TYR:OH	1:C:2359:ARG:NE	2.45	0.50
1:A:739:ALA:C	1:A:741:GLU:H	2.18	0.50
1:A:1491:ASN:H	1:A:1493:TYR:HA	1.76	0.50
1:C:516:LYS:HG3	1:C:555:GLU:OE2	2.11	0.50
1:C:583:ILE:HD12	1:C:620:LEU:HD22	1.93	0.50
1:C:646:PRO:HA	1:C:823:LEU:HA	1.94	0.50
1:C:1240:LYS:HD3	1:C:1610:ASN:OD1	2.12	0.50
1:C:1491:ASN:H	1:C:1493:TYR:HA	1.77	0.50
1:C:1808:ARG:HA	1:C:1848:LEU:HD21	1.93	0.50
1:E:14:LEU:HD21	1:E:204:PRO:HG3	1.92	0.50
1:E:4002:LYS:HA	1:E:4005:GLN:HG2	1.93	0.50
1:E:4806:ASN:O	1:E:4809:PHE:HB3	2.12	0.50
1:E:4857:ASN:HD21	1:G:4807:PHE:HD2	1.60	0.50
1:G:214:VAL:HG22	1:G:341:TYR:CE1	2.47	0.50
1:G:1579:MET:O	1:G:1582:SER:OG	2.17	0.50
1:G:2299:VAL:HA	1:G:2302:LEU:HD12	1.94	0.50
1:G:4680:LYS:O	1:G:4685:GLY:N	2.37	0.50
1:A:595:ARG:HH12	1:A:632:LEU:HA	1.77	0.50
1:A:891:TRP:CH2	1:A:899:ASP:HA	2.47	0.50
1:A:1853:ILE:O	1:A:1854:PHE:HB2	2.11	0.50
1:C:473:ASN:O	1:C:477:LEU:HG	2.12	0.50
1:C:1141:ARG:NH2	1:C:1167:GLU:OE1	2.45	0.50
1:C:1866:ILE:HG23	1:C:1927:LEU:HB2	1.93	0.50
1:E:580:GLU:HB3	1:E:620:LEU:HD11	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:891:TRP:CH2	1:E:899:ASP:HA	2.47	0.50
1:G:732:SER:N	1:G:735:GLN:OE1	2.45	0.50
1:G:1853:ILE:O	1:G:1854:PHE:HB2	2.11	0.50
1:G:4961:CYS:HB3	1:G:4963:ILE:HG12	1.93	0.50
1:A:2359:ARG:NE	1:G:179:TYR:OH	2.45	0.50
1:A:3674:ILE:HD13	1:A:3677:LEU:HD12	1.93	0.50
1:A:3992:PHE:HB3	1:A:3996:PHE:CE2	2.47	0.50
1:A:4937:ILE:HG12	1:G:4934:GLY:CA	2.40	0.50
1:C:233:ILE:O	1:C:257:ARG:NH1	2.45	0.50
1:C:1033:ARG:HA	1:C:1036:ARG:HG2	1.93	0.50
1:C:1436:SER:HA	1:C:1516:ILE:HA	1.93	0.50
1:C:2340:PHE:HB2	1:C:2435:ARG:HB3	1.94	0.50
1:C:4934:GLY:HA3	1:E:4937:ILE:CG1	2.40	0.50
1:E:20:VAL:O	1:E:67:PHE:N	2.42	0.50
1:E:214:VAL:HG22	1:E:341:TYR:CE1	2.47	0.50
1:E:401:ALA:HA	1:E:404:ILE:HD12	1.93	0.50
1:E:739:ALA:C	1:E:741:GLU:H	2.18	0.50
1:E:2247:GLN:HE21	1:E:2279:SER:C	2.20	0.50
1:G:2247:GLN:HE21	1:G:2279:SER:C	2.20	0.50
1:C:1000:ARG:HB3	1:C:1021:LEU:HD21	1.94	0.50
1:C:1293:LEU:HD23	1:C:1584:ARG:HG2	1.93	0.50
2:D:74:LEU:HD23	2:D:76:ILE:HD11	1.93	0.50
1:E:473:ASN:O	1:E:477:LEU:HG	2.12	0.50
1:E:1436:SER:HA	1:E:1516:ILE:HA	1.93	0.50
1:E:1866:ILE:HG23	1:E:1927:LEU:HB2	1.93	0.50
1:E:2907:PRO:O	1:E:2910:THR:OG1	2.18	0.50
1:E:4837:LEU:HD11	1:E:4932:ILE:HG23	1.94	0.50
1:G:400:ALA:O	1:G:404:ILE:HG13	2.11	0.50
1:G:473:ASN:O	1:G:477:LEU:HG	2.12	0.50
1:G:919:ASN:HA	1:G:922:LEU:HB2	1.93	0.50
1:G:1744:ALA:CB	1:G:1745:ILE:HA	2.41	0.50
1:A:1111:PRO:HG3	1:A:1609:PRO:HD3	1.94	0.49
1:A:1775:HIS:ND1	1:A:1775:HIS:O	2.45	0.49
1:A:2299:VAL:HA	1:A:2302:LEU:HD12	1.94	0.49
1:A:3769:ARG:O	1:A:3773:ARG:NH1	2.41	0.49
1:C:721:LEU:HD11	1:C:728:ARG:HB2	1.93	0.49
1:C:2158:CYS:SG	1:C:2184:ASN:ND2	2.80	0.49
1:C:2803:GLU:HA	1:C:2806:ARG:HB2	1.94	0.49
1:C:4002:LYS:HA	1:C:4005:GLN:HG2	1.93	0.49
1:E:1808:ARG:HA	1:E:1848:LEU:HD21	1.93	0.49
1:E:2340:PHE:HB2	1:E:2435:ARG:HB3	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:74:LEU:HD23	2:F:76:ILE:HD11	1.93	0.49
1:G:646:PRO:HA	1:G:823:LEU:HA	1.94	0.49
1:G:1190:PRO:HG2	1:G:1226:PHE:HE2	1.77	0.49
1:G:2340:PHE:HB2	1:G:2435:ARG:HB3	1.94	0.49
1:G:3891:LEU:HD23	1:G:3899:PHE:CZ	2.47	0.49
1:A:214:VAL:HG22	1:A:341:TYR:CE1	2.47	0.49
1:A:1293:LEU:HD23	1:A:1584:ARG:HG2	1.93	0.49
1:A:2242:ILE:HD11	1:A:2246:ASN:ND2	2.27	0.49
1:A:4677:LEU:HD22	1:A:4711:PHE:CZ	2.47	0.49
1:C:401:ALA:HA	1:C:404:ILE:HD12	1.93	0.49
1:C:580:GLU:HB3	1:C:620:LEU:HD11	1.94	0.49
1:C:1738:LEU:HD11	1:C:2143:THR:HB	1.94	0.49
1:C:1762:LEU:HG	1:C:1764:GLY:H	1.76	0.49
1:C:3769:ARG:O	1:C:3773:ARG:NH1	2.40	0.49
1:E:233:ILE:O	1:E:257:ARG:NH1	2.45	0.49
1:E:526:LEU:HD11	1:E:540:PHE:HZ	1.77	0.49
1:E:595:ARG:HH12	1:E:632:LEU:HA	1.78	0.49
1:E:1671:ARG:NH1	1:E:1713:ASP:OD2	2.46	0.49
1:G:891:TRP:CH2	1:G:899:ASP:HA	2.47	0.49
1:G:4799:SER:OG	1:G:4812:HIS:NE2	2.36	0.49
1:A:233:ILE:O	1:A:257:ARG:NH1	2.45	0.49
1:A:244:LEU:HD22	1:A:375:LYS:NZ	2.27	0.49
1:A:516:LYS:HG3	1:A:555:GLU:OE2	2.11	0.49
1:A:668:VAL:HA	1:A:789:VAL:HG12	1.93	0.49
1:A:716:PHE:O	1:A:737:LEU:HG	2.13	0.49
1:A:919:ASN:HA	1:A:922:LEU:HB2	1.93	0.49
1:C:732:SER:N	1:C:735:GLN:OE1	2.46	0.49
1:C:2907:PRO:O	1:C:2910:THR:OG1	2.18	0.49
1:C:4239:GLU:OE2	1:C:5014:TYR:OH	2.18	0.49
1:E:695:TYR:O	1:E:697:GLY:N	2.42	0.49
1:E:732:SER:N	1:E:735:GLN:OE1	2.45	0.49
1:E:1103:GLY:HA3	1:E:1123:VAL:HA	1.94	0.49
1:E:1190:PRO:HG2	1:E:1226:PHE:HE2	1.77	0.49
1:E:1738:LEU:HD11	1:E:2143:THR:HB	1.94	0.49
1:E:3727:ASP:HB3	1:E:3731:LYS:HZ1	1.76	0.49
1:G:559:GLY:O	1:G:563:VAL:HG23	2.12	0.49
1:G:1240:LYS:HD3	1:G:1610:ASN:OD1	2.12	0.49
1:G:1609:PRO:O	1:G:1610:ASN:ND2	2.45	0.49
1:G:4024:VAL:O	1:G:4028:LEU:N	2.41	0.49
1:A:14:LEU:HD21	1:A:204:PRO:HG3	1.93	0.49
1:A:559:GLY:O	1:A:563:VAL:HG23	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:575:LEU:HD12	1:A:609:CYS:SG	2.53	0.49
1:A:1103:GLY:HA3	1:A:1123:VAL:HA	1.94	0.49
1:A:2142:TYR:CD2	1:A:2197:LEU:HD12	2.47	0.49
1:C:1775:HIS:ND1	1:C:1775:HIS:O	2.45	0.49
1:C:4677:LEU:HD22	1:C:4711:PHE:CE1	2.46	0.49
1:C:4677:LEU:HD22	1:C:4711:PHE:CZ	2.47	0.49
1:E:1076:ARG:HH22	1:E:1609:PRO:HB3	1.77	0.49
1:E:4217:PHE:HZ	1:E:4234:PHE:HA	1.78	0.49
1:G:20:VAL:O	1:G:67:PHE:N	2.42	0.49
1:G:33:LEU:HD23	1:G:35:LEU:HD23	1.93	0.49
1:G:42:PHE:HD1	1:G:447:ASP:OD2	1.95	0.49
1:G:526:LEU:HD11	1:G:540:PHE:HZ	1.78	0.49
1:G:1436:SER:HA	1:G:1516:ILE:HA	1.93	0.49
1:G:1491:ASN:H	1:G:1493:TYR:HA	1.76	0.49
1:G:2499:LYS:HB3	1:G:2553:TYR:OH	2.13	0.49
1:A:1762:LEU:HG	1:A:1764:GLY:H	1.77	0.49
1:A:1952:GLN:NE2	1:A:1956:GLU:OE2	2.45	0.49
1:A:3727:ASP:HB3	1:A:3731:LYS:HZ1	1.76	0.49
1:C:158:SER:H	1:C:161:GLU:HG3	1.76	0.49
1:C:221:ARG:NE	1:C:253:CYS:O	2.45	0.49
1:C:244:LEU:HD22	1:C:375:LYS:NZ	2.27	0.49
1:C:575:LEU:HD12	1:C:609:CYS:SG	2.53	0.49
1:C:2142:TYR:CD2	1:C:2197:LEU:HD12	2.47	0.49
1:C:2867:LEU:HG	1:C:2928:LYS:HZ3	1.76	0.49
1:E:42:PHE:HD1	1:E:447:ASP:OD2	1.95	0.49
1:E:575:LEU:HD12	1:E:609:CYS:SG	2.53	0.49
1:E:826:ILE:O	1:E:828:GLU:N	2.46	0.49
1:E:2142:TYR:CD2	1:E:2197:LEU:HD12	2.47	0.49
1:E:3889:GLN:HE22	1:E:3963:ASN:HB3	1.78	0.49
1:G:638:ILE:HD12	1:G:678:GLN:NE2	2.27	0.49
1:G:1937:LEU:HD12	1:G:2116:LEU:HB2	1.95	0.49
1:G:3934:TYR:OH	1:G:3998:HIS:HB3	2.11	0.49
1:A:400:ALA:O	1:A:404:ILE:HG13	2.11	0.49
1:A:473:ASN:O	1:A:477:LEU:HG	2.12	0.49
1:A:826:ILE:O	1:A:828:GLU:N	2.46	0.49
1:A:2247:GLN:HE21	1:A:2279:SER:C	2.20	0.49
1:A:2499:LYS:HB3	1:A:2553:TYR:OH	2.12	0.49
1:A:3799:LYS:HE3	1:A:3879:GLU:OE2	2.12	0.49
1:A:3844:LEU:CD2	1:G:76:ARG:HE	2.23	0.49
1:C:825:PRO:HG2	1:C:828:GLU:HG3	1.95	0.49
1:C:891:TRP:CH2	1:C:899:ASP:HA	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2299:VAL:HA	1:C:2302:LEU:HD12	1.94	0.49
1:E:716:PHE:O	1:E:737:LEU:HG	2.13	0.49
1:E:1952:GLN:NE2	1:E:1956:GLU:OE2	2.45	0.49
1:E:2161:GLN:HE21	1:E:2177:LEU:HB3	1.77	0.49
1:G:615:ARG:NH1	1:G:1678:ASN:OD1	2.46	0.49
1:G:2242:ILE:HD11	1:G:2246:ASN:ND2	2.27	0.49
1:A:33:LEU:HD23	1:A:35:LEU:HD23	1.93	0.49
1:A:1671:ARG:NH1	1:A:1713:ASP:OD2	2.46	0.49
1:A:1738:LEU:HD11	1:A:2143:THR:HB	1.95	0.49
1:C:595:ARG:HH12	1:C:632:LEU:HA	1.78	0.49
1:C:1078:GLU:HG3	1:C:1237:TRP:CH2	2.47	0.49
1:C:1671:ARG:NH1	1:C:1713:ASP:OD2	2.46	0.49
1:C:3727:ASP:HB3	1:C:3731:LYS:HZ1	1.77	0.49
1:C:3985:LEU:HD11	1:C:4026:MET:HE1	1.95	0.49
1:C:4217:PHE:HZ	1:C:4234:PHE:HA	1.78	0.49
1:C:4702:ASP:O	1:C:4705:VAL:HG12	2.13	0.49
1:E:4702:ASP:O	1:E:4705:VAL:HG12	2.12	0.49
1:E:4974:GLY:O	1:E:4977:THR:OG1	2.25	0.49
1:G:1078:GLU:HG3	1:G:1237:TRP:CH2	2.48	0.49
1:A:20:VAL:O	1:A:67:PHE:N	2.42	0.49
1:A:732:SER:N	1:A:735:GLN:OE1	2.46	0.49
1:A:825:PRO:HG2	1:A:828:GLU:HG3	1.95	0.49
1:C:14:LEU:HD21	1:C:204:PRO:HG3	1.93	0.49
1:C:826:ILE:O	1:C:828:GLU:N	2.46	0.49
1:C:1952:GLN:NE2	1:C:1956:GLU:OE2	2.45	0.49
1:C:2242:ILE:HD11	1:C:2246:ASN:ND2	2.28	0.49
1:C:4139:ILE:O	1:C:4143:VAL:HG23	2.13	0.49
1:E:244:LEU:HD22	1:E:375:LYS:NZ	2.27	0.49
1:E:646:PRO:HA	1:E:823:LEU:HA	1.94	0.49
1:E:2299:VAL:HA	1:E:2302:LEU:HD12	1.95	0.49
1:G:244:LEU:HD22	1:G:375:LYS:NZ	2.27	0.49
1:G:583:ILE:HD11	1:G:617:ASN:OD1	2.13	0.49
1:G:1000:ARG:HB3	1:G:1021:LEU:HD21	1.94	0.49
1:G:4183:ILE:HD12	1:G:4185:GLY:H	1.78	0.49
1:G:4820:VAL:O	1:G:4824:ARG:HG3	2.12	0.49
1:A:526:LEU:HD11	1:A:540:PHE:HZ	1.77	0.49
1:A:692:TYR:CE1	1:A:711:LEU:HD21	2.48	0.49
1:A:2505:PHE:CE1	1:A:2509:VAL:HG21	2.48	0.49
1:A:4002:LYS:HA	1:A:4005:GLN:HG2	1.94	0.49
1:C:214:VAL:HG22	1:C:341:TYR:CE1	2.47	0.49
1:C:2142:TYR:HD2	1:C:2197:LEU:HD12	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:158:SER:OG	1:E:159:GLU:N	2.45	0.49
1:E:350:HIS:HD2	1:E:353:SER:H	1.61	0.49
1:A:109:LEU:HB2	1:A:118:LEU:HB3	1.95	0.49
1:A:1091:GLU:HA	1:A:1150:GLY:HA2	1.95	0.49
1:A:1744:ALA:CB	1:A:1745:ILE:HA	2.41	0.49
1:A:2142:TYR:HD2	1:A:2197:LEU:HD12	1.78	0.49
1:A:2803:GLU:HA	1:A:2806:ARG:HB2	1.95	0.49
1:A:4247:ILE:HD11	1:A:4667:PRO:HB2	1.95	0.49
1:A:4976:GLU:OE1	1:G:4228:ALA:HB2	2.13	0.49
1:C:526:LEU:HD11	1:C:540:PHE:HZ	1.77	0.49
1:C:667:MET:HE2	1:C:790:ARG:HD2	1.95	0.49
1:C:1744:ALA:CB	1:C:1745:ILE:HA	2.41	0.49
1:C:2247:GLN:HE21	1:C:2279:SER:C	2.20	0.49
1:E:4677:LEU:HD22	1:E:4711:PHE:CZ	2.48	0.49
1:G:1762:LEU:HG	1:G:1764:GLY:H	1.78	0.49
1:G:3842:LEU:HB3	1:G:3929:SER:OG	2.13	0.49
1:A:401:ALA:HA	1:A:404:ILE:HD12	1.94	0.48
1:A:402:ARG:NH1	1:A:405:HIS:CD2	2.81	0.48
1:A:583:ILE:HD11	1:A:617:ASN:OD1	2.13	0.48
1:A:1000:ARG:HB3	1:A:1021:LEU:HD21	1.94	0.48
1:A:1190:PRO:HG2	1:A:1226:PHE:HE2	1.77	0.48
1:A:1623:ARG:NH1	1:A:1626:TRP:HE1	2.06	0.48
1:A:1866:ILE:HG23	1:A:1927:LEU:HB2	1.93	0.48
1:A:2450:ALA:O	1:A:2453:ILE:HG12	2.13	0.48
1:C:638:ILE:HD12	1:C:678:GLN:NE2	2.27	0.48
1:C:695:TYR:O	1:C:697:GLY:N	2.42	0.48
1:C:1961:PHE:CD2	1:C:2066:LEU:HD22	2.47	0.48
1:E:2242:ILE:HD11	1:E:2246:ASN:ND2	2.28	0.48
1:G:484:LEU:HD11	1:G:530:ILE:HD11	1.95	0.48
1:G:1663:HIS:O	1:G:1666:THR:OG1	2.19	0.48
1:G:1671:ARG:NH1	1:G:1713:ASP:OD2	2.46	0.48
1:G:1961:PHE:CE2	1:G:2066:LEU:HD22	2.48	0.48
1:A:42:PHE:HD1	1:A:447:ASP:OD2	1.95	0.48
1:A:4192:ARG:NH1	1:A:5028:PHE:CD2	2.81	0.48
1:C:1091:GLU:HA	1:C:1150:GLY:HA2	1.95	0.48
1:C:2161:GLN:HE21	1:C:2177:LEU:HB3	1.77	0.48
1:C:2499:LYS:HB3	1:C:2553:TYR:OH	2.13	0.48
1:C:2505:PHE:CE1	1:C:2509:VAL:HG21	2.48	0.48
1:E:667:MET:HE2	1:E:790:ARG:HD2	1.94	0.48
1:E:2499:LYS:HB3	1:E:2553:TYR:OH	2.13	0.48
1:E:4162:ASN:HA	1:E:4165:GLU:HG2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4923:PHE:O	1:E:4928:LEU:HD13	2.13	0.48
1:G:4664:LEU:O	1:G:4667:PRO:HD2	2.13	0.48
1:A:580:GLU:HB3	1:A:620:LEU:HD11	1.94	0.48
1:A:4162:ASN:HA	1:A:4165:GLU:HG2	1.95	0.48
1:A:4702:ASP:O	1:A:4705:VAL:HG12	2.12	0.48
1:A:4735:GLU:O	1:A:4739:GLU:N	2.44	0.48
1:C:158:SER:OG	1:C:159:GLU:N	2.46	0.48
1:E:583:ILE:HD11	1:E:617:ASN:OD1	2.13	0.48
1:E:692:TYR:CE1	1:E:711:LEU:HD21	2.48	0.48
1:E:4856:PHE:O	1:E:4860:ARG:NH1	2.46	0.48
1:G:825:PRO:HG2	1:G:828:GLU:HG3	1.95	0.48
1:G:826:ILE:O	1:G:828:GLU:N	2.46	0.48
1:G:1077:ALA:HB3	1:G:1190:PRO:HD2	1.96	0.48
1:G:2505:PHE:CE1	1:G:2509:VAL:HG21	2.48	0.48
1:G:2775:TRP:HH2	1:G:2783:GLU:HA	1.78	0.48
1:G:2803:GLU:HA	1:G:2806:ARG:HB2	1.95	0.48
1:A:1579:MET:O	1:A:1582:SER:OG	2.17	0.48
1:A:2775:TRP:HH2	1:A:2783:GLU:HA	1.79	0.48
1:C:42:PHE:HD1	1:C:447:ASP:OD2	1.96	0.48
1:C:559:GLY:O	1:C:563:VAL:HG23	2.12	0.48
1:C:1609:PRO:O	1:C:1610:ASN:ND2	2.46	0.48
1:C:3799:LYS:HE3	1:C:3879:GLU:OE2	2.12	0.48
1:E:102:LEU:HB2	1:E:105:HIS:CE1	2.47	0.48
1:E:825:PRO:HG2	1:E:828:GLU:HG3	1.95	0.48
1:E:1000:ARG:HB3	1:E:1021:LEU:HD21	1.94	0.48
1:E:1598:GLN:O	1:E:1600:LEU:N	2.43	0.48
1:E:1849:LEU:HG	1:E:1945:TYR:CE2	2.49	0.48
1:E:2341:VAL:HG13	1:E:2342:ASN:N	2.22	0.48
1:E:3799:LYS:HE3	1:E:3879:GLU:OE2	2.12	0.48
1:E:4139:ILE:O	1:E:4143:VAL:HG23	2.13	0.48
1:G:63:ALA:HA	1:G:261:ARG:NH2	2.29	0.48
1:G:350:HIS:HD2	1:G:353:SER:H	1.61	0.48
1:G:603:LEU:HD22	1:G:621:ILE:HD12	1.96	0.48
1:A:590:LEU:HD23	1:A:631:LEU:HD21	1.95	0.48
1:A:4806:ASN:O	1:A:4809:PHE:HB3	2.13	0.48
1:E:484:LEU:HD11	1:E:530:ILE:HD11	1.96	0.48
1:E:559:GLY:O	1:E:563:VAL:HG23	2.12	0.48
1:E:1077:ALA:HB3	1:E:1190:PRO:HD2	1.96	0.48
1:E:4192:ARG:NH1	1:E:5028:PHE:CD2	2.82	0.48
1:G:667:MET:HE2	1:G:790:ARG:HD2	1.95	0.48
1:G:1091:GLU:HA	1:G:1150:GLY:HA2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1849:LEU:HG	1:G:1945:TYR:CE2	2.48	0.48
1:G:3959:LYS:HG3	1:G:4022:ASP:OD2	2.14	0.48
1:G:3993:LEU:HD13	1:G:4055:VAL:HG22	1.96	0.48
1:G:4175:ARG:N	1:G:4176:PRO:HD2	2.29	0.48
1:A:158:SER:OG	1:A:159:GLU:N	2.46	0.48
1:A:683:ARG:HB3	1:A:713:SER:HB2	1.96	0.48
1:A:2161:GLN:HE21	1:A:2177:LEU:HB3	1.78	0.48
1:A:4807:PHE:CE2	1:G:4856:PHE:CD2	3.01	0.48
1:A:4901:ILE:HG21	1:A:4913:ARG:NH2	2.27	0.48
1:C:484:LEU:HD11	1:C:530:ILE:HD11	1.96	0.48
1:C:1077:ALA:HB3	1:C:1190:PRO:HD2	1.95	0.48
1:C:2341:VAL:HG13	1:C:2342:ASN:N	2.22	0.48
1:C:4835:LYS:HG2	1:E:4822:THR:HG21	1.94	0.48
1:G:109:LEU:HB2	1:G:118:LEU:HB3	1.95	0.48
1:G:692:TYR:CE1	1:G:711:LEU:HD21	2.48	0.48
1:G:2161:GLN:HE21	1:G:2177:LEU:HB3	1.78	0.48
1:G:2450:ALA:O	1:G:2453:ILE:HG12	2.14	0.48
1:G:4002:LYS:HA	1:G:4005:GLN:HG2	1.96	0.48
1:G:4031:LEU:HD12	1:G:4034:ASN:HD22	1.79	0.48
1:G:4677:LEU:CD1	1:G:4702:ASP:HB3	2.44	0.48
1:A:1088:TRP:HB2	1:A:1153:ILE:CG2	2.44	0.48
1:A:1849:LEU:HG	1:A:1945:TYR:CE2	2.48	0.48
1:C:583:ILE:HD11	1:C:617:ASN:OD1	2.13	0.48
1:C:1849:LEU:HG	1:C:1945:TYR:CE2	2.48	0.48
1:C:2450:ALA:O	1:C:2453:ILE:HG12	2.13	0.48
1:C:4162:ASN:HA	1:C:4165:GLU:HG2	1.95	0.48
1:E:109:LEU:HB2	1:E:118:LEU:HB3	1.95	0.48
1:E:603:LEU:HD22	1:E:621:ILE:HD12	1.95	0.48
1:E:1205:GLY:HA2	1:E:1225:PRO:HB3	1.96	0.48
1:E:4914:VAL:HG21	1:G:4888:TYR:HB2	1.94	0.48
1:C:1088:TRP:HB2	1:C:1153:ILE:CG2	2.44	0.48
1:C:4192:ARG:NH1	1:C:5028:PHE:CD2	2.82	0.48
1:E:22:LEU:HB3	1:E:200:TRP:CZ3	2.49	0.48
1:E:3985:LEU:HD11	1:E:4026:MET:HE1	1.95	0.48
1:E:4984:ASN:OD1	1:E:4987:ASN:ND2	2.47	0.48
1:G:3836:MET:O	1:G:3925:ARG:NH2	2.47	0.48
1:A:2142:TYR:CD2	1:A:2197:LEU:HB2	2.49	0.48
1:A:3985:LEU:HD11	1:A:4026:MET:HE1	1.95	0.48
1:A:4139:ILE:O	1:A:4143:VAL:HG23	2.13	0.48
1:A:4984:ASN:OD1	1:A:4987:ASN:ND2	2.47	0.48
1:C:350:HIS:HD2	1:C:353:SER:H	1.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:615:ARG:NH1	1:C:1678:ASN:OD1	2.47	0.48
1:C:692:TYR:CE1	1:C:711:LEU:HD21	2.48	0.48
1:C:4552:LEU:HD11	1:C:4663:CYS:SG	2.54	0.48
1:E:709:ASP:OD2	1:E:1491:ASN:HA	2.14	0.48
1:E:1088:TRP:HB2	1:E:1153:ILE:CG2	2.44	0.48
1:E:2505:PHE:CE1	1:E:2509:VAL:HG21	2.48	0.48
1:G:1961:PHE:CD2	1:G:2066:LEU:HD22	2.49	0.48
1:G:3962:PHE:O	1:G:3966:THR:HG23	2.13	0.48
1:A:1687:SER:HB2	1:A:1782:PHE:CZ	2.49	0.48
1:A:2454:ARG:O	1:A:2458:ARG:HG3	2.14	0.48
1:C:590:LEU:HD23	1:C:631:LEU:HD21	1.95	0.48
1:C:2066:LEU:O	1:C:2070:VAL:HG23	2.14	0.48
1:C:4901:ILE:HG21	1:C:4913:ARG:NH2	2.27	0.48
1:C:4904:PRO:HB2	1:C:4910:GLU:HG3	1.96	0.48
1:E:3804:ILE:HG22	1:E:3812:VAL:HG11	1.96	0.48
1:G:1018:ASN:H	1:G:1021:LEU:HD12	1.79	0.48
1:G:2454:ARG:O	1:G:2458:ARG:HG3	2.14	0.48
1:A:229:GLU:HA	1:A:249:GLY:HA2	1.96	0.47
1:A:615:ARG:NH1	1:A:1678:ASN:OD1	2.46	0.47
1:A:638:ILE:HD12	1:A:678:GLN:NE2	2.27	0.47
1:A:3805:LEU:HB2	1:A:3890:LEU:HD23	1.95	0.47
1:A:3889:GLN:HE22	1:A:3963:ASN:HB3	1.78	0.47
1:A:4076:ALA:HA	1:A:4079:ASP:HB3	1.96	0.47
1:A:4914:VAL:HG23	1:C:4888:TYR:CG	2.48	0.47
1:E:646:PRO:O	1:E:648:ILE:N	2.41	0.47
1:E:855:PRO:HG2	1:E:998:ARG:HD2	1.96	0.47
1:E:2142:TYR:HD2	1:E:2197:LEU:HD12	1.78	0.47
1:E:2771:ILE:HD11	1:E:2857:PRO:HD2	1.96	0.47
1:E:3768:SER:HA	1:E:3771:HIS:CE1	2.49	0.47
1:E:3980:LEU:HD21	1:E:3985:LEU:HD13	1.96	0.47
2:F:37:ASP:OD1	2:F:38:SER:N	2.47	0.47
2:F:76:ILE:O	2:F:96:THR:HG23	2.14	0.47
1:G:595:ARG:HH12	1:G:632:LEU:HA	1.79	0.47
1:G:1252:HIS:C	1:G:1254:HIS:N	2.72	0.47
1:A:1077:ALA:HB3	1:A:1190:PRO:HD2	1.96	0.47
1:C:3768:SER:HA	1:C:3771:HIS:CE1	2.49	0.47
1:C:4984:ASN:OD1	1:C:4987:ASN:ND2	2.47	0.47
1:E:158:SER:H	1:E:161:GLU:HG3	1.79	0.47
1:E:683:ARG:HB3	1:E:713:SER:HB2	1.96	0.47
1:E:2142:TYR:CD2	1:E:2197:LEU:HB2	2.48	0.47
1:E:2450:ALA:O	1:E:2453:ILE:HG12	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:575:LEU:HD12	1:G:609:CYS:SG	2.53	0.47
1:G:1676:LEU:HD23	1:G:1676:LEU:O	2.15	0.47
1:G:1952:GLN:NE2	1:G:1956:GLU:OE2	2.47	0.47
1:A:63:ALA:HA	1:A:261:ARG:NH2	2.30	0.47
1:A:484:LEU:HD11	1:A:530:ILE:HD11	1.96	0.47
1:A:4552:LEU:HD11	1:A:4663:CYS:SG	2.54	0.47
1:C:1767:VAL:C	1:C:1768:THR:HG1	2.22	0.47
1:C:2775:TRP:HH2	1:C:2783:GLU:HA	1.79	0.47
1:C:3825:GLU:C	1:C:3827:GLY:H	2.22	0.47
2:D:37:ASP:OD1	2:D:38:SER:N	2.47	0.47
1:E:590:LEU:HD23	1:E:631:LEU:HD21	1.95	0.47
1:E:615:ARG:NH1	1:E:1678:ASN:OD1	2.46	0.47
1:E:4247:ILE:HD11	1:E:4667:PRO:HB2	1.95	0.47
1:G:402:ARG:NH1	1:G:405:HIS:CD2	2.81	0.47
1:G:1746:THR:O	1:G:1748:PHE:N	2.48	0.47
1:G:2827:ARG:HB2	1:G:2934:GLY:HA3	1.96	0.47
1:A:667:MET:HE2	1:A:790:ARG:HD2	1.95	0.47
1:A:2066:LEU:O	1:A:2070:VAL:HG23	2.15	0.47
1:A:4217:PHE:HZ	1:A:4234:PHE:HA	1.78	0.47
1:C:830:ARG:HD3	1:C:1612:PHE:CZ	2.50	0.47
1:C:2142:TYR:CD2	1:C:2197:LEU:HB2	2.49	0.47
1:E:402:ARG:NH1	1:E:405:HIS:CD2	2.81	0.47
1:E:1687:SER:HB2	1:E:1782:PHE:CZ	2.49	0.47
1:E:2775:TRP:HH2	1:E:2783:GLU:HA	1.79	0.47
1:G:1081:TYR:CD2	1:G:1234:VAL:HG13	2.49	0.47
1:G:1088:TRP:HB2	1:G:1153:ILE:CG2	2.44	0.47
1:G:1662:PHE:O	1:G:1666:THR:HG23	2.15	0.47
1:G:3826:VAL:HG23	1:G:3909:ASN:HB3	1.96	0.47
1:G:4573:ILE:HD11	1:G:4646:LEU:HB3	1.96	0.47
1:A:22:LEU:HB3	1:A:200:TRP:CZ3	2.50	0.47
1:A:350:HIS:HD2	1:A:353:SER:H	1.61	0.47
1:A:603:LEU:HD22	1:A:621:ILE:HD12	1.96	0.47
1:A:4963:ILE:HD12	1:A:5030:LYS:HZ1	1.78	0.47
1:C:1729:SER:O	1:C:1733:GLU:HG2	2.15	0.47
1:C:2454:ARG:O	1:C:2458:ARG:HG3	2.14	0.47
1:E:1132:TRP:CD1	1:E:1136:SER:HA	2.50	0.47
1:E:1662:PHE:O	1:E:1666:THR:HG23	2.15	0.47
1:E:1746:THR:O	1:E:1748:PHE:N	2.47	0.47
1:E:3825:GLU:C	1:E:3827:GLY:H	2.22	0.47
1:E:4175:ARG:N	1:E:4176:PRO:HD2	2.30	0.47
1:E:4552:LEU:HD11	1:E:4663:CYS:SG	2.54	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2136:ARG:HH11	1:G:3720:TYR:HE2	1.62	0.47
2:H:38:SER:HB3	2:H:41:ASP:OD2	2.15	0.47
2:B:76:ILE:O	2:B:96:THR:HG23	2.15	0.47
1:C:109:LEU:HB2	1:C:118:LEU:HB3	1.96	0.47
1:C:709:ASP:OD2	1:C:1491:ASN:HA	2.14	0.47
1:C:716:PHE:O	1:C:737:LEU:HG	2.13	0.47
1:C:1229:ASN:CG	1:C:1827:ARG:HH11	2.23	0.47
1:C:3805:LEU:HB2	1:C:3890:LEU:HD23	1.96	0.47
1:E:221:ARG:NE	1:E:253:CYS:O	2.44	0.47
1:E:695:TYR:CD2	1:E:1240:LYS:HE3	2.50	0.47
1:E:4221:VAL:HG11	1:E:4230:LYS:HG3	1.96	0.47
1:E:4818:MET:HA	1:E:4824:ARG:HG2	1.96	0.47
1:E:4904:PRO:HB2	1:E:4910:GLU:HG3	1.97	0.47
1:G:675:LEU:CD2	1:G:1633:PRO:HG3	2.45	0.47
1:G:1091:GLU:HG2	1:G:1213:PHE:CD1	2.50	0.47
1:G:3780:LEU:HD23	1:G:3819:TYR:CD2	2.49	0.47
1:A:714:TYR:CB	1:A:757:PHE:HD2	2.28	0.47
1:A:843:SER:OG	1:A:844:ARG:N	2.48	0.47
1:A:1018:ASN:H	1:A:1021:LEU:HD12	1.80	0.47
1:A:1130:GLN:HA	1:A:1138:PRO:HA	1.97	0.47
1:A:1662:PHE:O	1:A:1666:THR:HG23	2.15	0.47
1:A:1739:THR:O	1:A:1742:THR:OG1	2.31	0.47
1:A:4030:LEU:CG	1:A:4040:ILE:HD11	2.44	0.47
1:A:4818:MET:HA	1:A:4824:ARG:HG2	1.95	0.47
1:A:4892:ARG:NH2	1:G:4917:ASP:OD2	2.48	0.47
2:B:37:ASP:OD1	2:B:38:SER:N	2.47	0.47
1:C:111:HIS:CD2	1:C:113:HIS:HB3	2.50	0.47
1:C:402:ARG:NH1	1:C:405:HIS:CD2	2.81	0.47
1:C:1018:ASN:H	1:C:1021:LEU:HD12	1.80	0.47
1:C:1091:GLU:HG2	1:C:1213:PHE:CD1	2.49	0.47
1:C:1662:PHE:O	1:C:1666:THR:HG23	2.15	0.47
1:C:1687:SER:HB2	1:C:1782:PHE:CZ	2.49	0.47
1:C:3889:GLN:HE22	1:C:3963:ASN:HB3	1.78	0.47
1:C:4247:ILE:HD11	1:C:4667:PRO:HB2	1.96	0.47
1:C:4791:TYR:HD2	1:C:4792:LEU:HD12	1.80	0.47
1:E:1091:GLU:HG2	1:E:1213:PHE:CD1	2.50	0.47
1:E:1609:PRO:O	1:E:1610:ASN:ND2	2.48	0.47
1:E:1748:PHE:HZ	1:E:2072:LEU:HB2	1.79	0.47
1:E:3805:LEU:HB2	1:E:3890:LEU:HD23	1.96	0.47
1:E:3962:PHE:HD1	1:E:4026:MET:SD	2.38	0.47
1:E:4677:LEU:HD11	1:E:4702:ASP:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4791:TYR:HD2	1:E:4792:LEU:HD12	1.79	0.47
1:G:709:ASP:OD2	1:G:1491:ASN:HA	2.14	0.47
1:G:1676:LEU:HD21	1:G:2164:SER:O	2.15	0.47
1:G:1940:CYS:SG	1:G:2123:LEU:HD12	2.55	0.47
1:G:2066:LEU:O	1:G:2070:VAL:HG23	2.14	0.47
1:G:2771:ILE:HD11	1:G:2857:PRO:HD2	1.96	0.47
1:G:3889:GLN:NE2	1:G:3963:ASN:HB3	2.29	0.47
1:G:4240:ASP:CG	1:G:4675:LYS:HZ3	2.23	0.47
1:G:4646:LEU:HA	1:G:4649:LEU:HB3	1.97	0.47
1:G:4855:ALA:HB1	1:G:4863:TYR:HE2	1.80	0.47
1:G:4984:ASN:OD1	1:G:4987:ASN:ND2	2.48	0.47
2:H:25:HIS:CG	2:H:40:ARG:HE	2.33	0.47
1:A:1132:TRP:CD1	1:A:1136:SER:HA	2.50	0.47
1:A:3768:SER:HA	1:A:3771:HIS:CE1	2.49	0.47
1:A:4183:ILE:HD12	1:A:4185:GLY:H	1.80	0.47
1:A:4791:TYR:HD2	1:A:4792:LEU:HD12	1.80	0.47
1:C:22:LEU:HB3	1:C:200:TRP:CZ3	2.49	0.47
1:C:603:LEU:HD22	1:C:621:ILE:HD12	1.96	0.47
1:C:2206:THR:O	1:C:2210:VAL:HG23	2.15	0.47
1:C:4030:LEU:CG	1:C:4040:ILE:HD11	2.44	0.47
1:C:4837:LEU:HD11	1:C:4932:ILE:HG23	1.97	0.47
1:E:2454:ARG:O	1:E:2458:ARG:HG3	2.14	0.47
1:E:3729:MET:O	1:E:3732:SER:OG	2.28	0.47
1:E:4938:ASP:CG	1:G:4940:PHE:HB3	2.39	0.47
1:G:2819:TRP:CZ3	1:G:2877:GLN:HG2	2.50	0.47
1:G:3981:ALA:HA	1:G:3986:TRP:HE1	1.80	0.47
1:G:4141:PHE:O	1:G:4145:VAL:HG23	2.15	0.47
2:H:37:ASP:OD1	2:H:38:SER:N	2.48	0.47
1:A:646:PRO:O	1:A:648:ILE:N	2.41	0.47
1:A:1476:MET:H	1:A:1485:SER:HA	1.80	0.47
1:A:1610:ASN:HA	1:A:1652:GLU:OE2	2.15	0.47
1:A:1850:VAL:HA	1:A:1945:TYR:CE1	2.50	0.47
1:A:3980:LEU:HD21	1:A:3985:LEU:HD13	1.95	0.47
1:A:4087:LEU:HD23	1:A:4122:MET:HB3	1.97	0.47
1:A:4904:PRO:HB2	1:A:4910:GLU:HG3	1.97	0.47
1:C:411:TYR:HB2	1:C:486:LEU:HD21	1.97	0.47
1:C:3980:LEU:HD21	1:C:3985:LEU:HD13	1.96	0.47
1:C:4175:ARG:N	1:C:4176:PRO:HD2	2.29	0.47
1:E:495:ASN:CA	1:E:553:ARG:HH12	2.28	0.47
1:E:2206:THR:O	1:E:2210:VAL:HG23	2.15	0.47
1:E:3719:ASP:HB2	1:E:3793:MET:HE1	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4087:LEU:HD23	1:E:4122:MET:HB3	1.97	0.47
1:G:843:SER:OG	1:G:844:ARG:N	2.48	0.47
1:G:1679:ASN:HA	1:G:1682:ALA:HB3	1.97	0.47
1:G:1850:VAL:HA	1:G:1945:TYR:CE1	2.50	0.47
1:A:695:TYR:CD2	1:A:1240:LYS:HE3	2.50	0.47
1:A:3825:GLU:C	1:A:3827:GLY:H	2.22	0.47
1:A:3962:PHE:HD1	1:A:4026:MET:SD	2.38	0.47
2:D:76:ILE:O	2:D:96:THR:HG23	2.15	0.47
1:E:418:LEU:HA	1:E:421:PHE:CE2	2.50	0.47
1:E:1812:LEU:HA	1:E:1815:LEU:HD12	1.97	0.47
1:G:22:LEU:HB3	1:G:200:TRP:CZ3	2.50	0.47
1:G:546:TRP:HE1	1:G:550:LYS:HZ1	1.62	0.47
1:G:683:ARG:HB3	1:G:713:SER:HB2	1.96	0.47
1:G:2100:HIS:O	1:G:2104:ARG:HG2	2.15	0.47
2:H:23:VAL:HG22	2:H:47:LYS:HG2	1.96	0.47
1:A:495:ASN:CA	1:A:553:ARG:HH12	2.28	0.46
1:A:709:ASP:OD2	1:A:1491:ASN:HA	2.14	0.46
1:A:2100:HIS:O	1:A:2104:ARG:HG2	2.16	0.46
1:A:2206:THR:O	1:A:2210:VAL:HG23	2.15	0.46
1:A:2771:ILE:HD11	1:A:2857:PRO:HD2	1.96	0.46
1:C:229:GLU:HA	1:C:249:GLY:HA2	1.97	0.46
1:C:663:TYR:OH	1:C:804:PRO:HD2	2.16	0.46
1:C:1676:LEU:O	1:C:1676:LEU:HD23	2.15	0.46
2:F:55:VAL:HG21	2:F:59:TRP:HD1	1.81	0.46
1:G:158:SER:OG	1:G:159:GLU:N	2.46	0.46
1:G:495:ASN:CA	1:G:553:ARG:HH12	2.28	0.46
1:G:590:LEU:HD23	1:G:631:LEU:HD21	1.95	0.46
1:G:855:PRO:HG2	1:G:998:ARG:HD2	1.96	0.46
1:G:1685:LEU:O	1:G:1689:VAL:HG12	2.15	0.46
1:G:3955:MET:SD	1:G:4019:LEU:HD13	2.55	0.46
1:A:221:ARG:NE	1:A:253:CYS:O	2.45	0.46
1:A:284:HIS:NE2	1:A:286:THR:OG1	2.47	0.46
1:A:4175:ARG:N	1:A:4176:PRO:HD2	2.30	0.46
2:B:87:HIS:HD2	2:B:88:PRO:HD2	1.81	0.46
1:C:63:ALA:HA	1:C:261:ARG:NH2	2.29	0.46
1:C:1746:THR:O	1:C:1748:PHE:N	2.47	0.46
1:C:2771:ILE:HD11	1:C:2857:PRO:HD2	1.96	0.46
1:C:2927:LEU:HD22	1:C:2937:VAL:HG11	1.97	0.46
1:C:4076:ALA:HA	1:C:4079:ASP:HB3	1.96	0.46
2:D:55:VAL:HG21	2:D:59:TRP:HD1	1.81	0.46
1:E:411:TYR:HB2	1:E:486:LEU:HD21	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:843:SER:OG	1:E:844:ARG:N	2.48	0.46
1:E:1018:ASN:H	1:E:1021:LEU:HD12	1.80	0.46
1:E:1091:GLU:HA	1:E:1150:GLY:HA2	1.97	0.46
1:E:1762:LEU:HG	1:E:1764:GLY:H	1.79	0.46
1:G:229:GLU:HA	1:G:249:GLY:HA2	1.97	0.46
1:A:418:LEU:HA	1:A:421:PHE:CE2	2.50	0.46
1:A:663:TYR:OH	1:A:804:PRO:HD2	2.16	0.46
1:A:1091:GLU:HG2	1:A:1213:PHE:CD1	2.49	0.46
1:A:1204:LEU:HD22	1:A:1226:PHE:CD2	2.51	0.46
1:A:1229:ASN:CG	1:A:1827:ARG:HH11	2.23	0.46
1:A:1748:PHE:HZ	1:A:2072:LEU:HB2	1.80	0.46
1:A:4835:LYS:HG2	1:C:4822:THR:HG21	1.96	0.46
1:C:909:ASN:HA	1:C:965:TYR:CE1	2.51	0.46
1:C:1093:GLU:HG2	1:C:1148:VAL:HG22	1.97	0.46
1:C:1476:MET:H	1:C:1485:SER:HA	1.80	0.46
1:C:1676:LEU:HD21	1:C:2164:SER:O	2.16	0.46
1:E:229:GLU:HA	1:E:249:GLY:HA2	1.96	0.46
2:F:87:HIS:HD2	2:F:88:PRO:HD2	1.80	0.46
1:G:714:TYR:CB	1:G:757:PHE:HD2	2.28	0.46
1:G:1204:LEU:HD22	1:G:1226:PHE:CD2	2.51	0.46
1:G:1476:MET:H	1:G:1485:SER:HA	1.81	0.46
1:A:110:ARG:NH2	1:A:115:ARG:HD2	2.29	0.46
1:A:651:GLY:HA2	1:A:776:LEU:HG	1.98	0.46
1:A:1746:THR:O	1:A:1748:PHE:N	2.48	0.46
1:A:2198:MET:HE3	1:A:2203:MET:SD	2.56	0.46
1:A:4677:LEU:HD11	1:A:4702:ASP:HB3	1.97	0.46
2:B:73:LYS:HA	2:B:99:PHE:O	2.16	0.46
1:C:843:SER:OG	1:C:844:ARG:N	2.48	0.46
1:C:3719:ASP:HB2	1:C:3793:MET:HE1	1.97	0.46
1:C:3934:TYR:OH	1:C:3998:HIS:HB3	2.15	0.46
1:C:4053:SER:O	1:C:4056:GLU:HB3	2.15	0.46
1:C:4183:ILE:HD12	1:C:4185:GLY:H	1.80	0.46
1:E:63:ALA:HA	1:E:261:ARG:NH2	2.29	0.46
1:E:1081:TYR:CD2	1:E:1234:VAL:HG13	2.51	0.46
1:E:1476:MET:H	1:E:1485:SER:HA	1.80	0.46
1:E:4053:SER:O	1:E:4056:GLU:HB3	2.15	0.46
1:G:418:LEU:HA	1:G:421:PHE:CE2	2.50	0.46
1:G:2341:VAL:HG13	1:G:2342:ASN:N	2.22	0.46
1:G:3703:LEU:HD23	1:G:3703:LEU:O	2.16	0.46
1:G:3727:ASP:HB3	1:G:3731:LYS:NZ	2.31	0.46
1:G:3927:GLN:HE21	1:G:3991:GLY:CA	2.22	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4053:SER:O	1:A:4056:GLU:HB3	2.15	0.46
1:C:418:LEU:HA	1:C:421:PHE:CE2	2.50	0.46
1:C:855:PRO:HG2	1:C:998:ARG:HD2	1.96	0.46
1:C:3962:PHE:HD1	1:C:4026:MET:SD	2.38	0.46
1:E:111:HIS:CD2	1:E:113:HIS:HB3	2.50	0.46
1:E:546:TRP:HE1	1:E:550:LYS:HZ1	1.63	0.46
1:E:1130:GLN:HA	1:E:1138:PRO:HA	1.97	0.46
1:E:1685:LEU:O	1:E:1689:VAL:HG12	2.15	0.46
1:E:2066:LEU:O	1:E:2070:VAL:HG23	2.15	0.46
1:E:4076:ALA:HA	1:E:4079:ASP:HB3	1.97	0.46
1:G:221:ARG:NE	1:G:253:CYS:O	2.44	0.46
1:G:4904:PRO:HB2	1:G:4910:GLU:HG3	1.97	0.46
1:A:1093:GLU:HG2	1:A:1148:VAL:HG22	1.97	0.46
1:A:1685:LEU:O	1:A:1689:VAL:HG12	2.15	0.46
1:A:3804:ILE:HG22	1:A:3812:VAL:HG11	1.96	0.46
1:A:4807:PHE:HZ	1:G:4856:PHE:CE2	2.32	0.46
1:C:1204:LEU:HD22	1:C:1226:PHE:CD2	2.51	0.46
1:C:1685:LEU:O	1:C:1689:VAL:HG12	2.15	0.46
1:C:4677:LEU:HD11	1:C:4702:ASP:HB3	1.97	0.46
1:C:4914:VAL:HG23	1:E:4888:TYR:CG	2.49	0.46
1:E:1076:ARG:HH22	1:E:1609:PRO:CB	2.29	0.46
1:E:1729:SER:O	1:E:1733:GLU:HG2	2.15	0.46
1:E:1770:SER:OG	1:E:1771:LEU:N	2.49	0.46
1:E:3934:TYR:OH	1:E:3998:HIS:HB3	2.16	0.46
1:G:284:HIS:NE2	1:G:286:THR:OG1	2.48	0.46
1:G:646:PRO:O	1:G:648:ILE:N	2.40	0.46
1:G:1748:PHE:HZ	1:G:2072:LEU:HB2	1.80	0.46
1:G:3352:GLU:O	1:G:3356:SER:N	2.46	0.46
1:A:111:HIS:CD2	1:A:113:HIS:HB3	2.50	0.46
1:A:1676:LEU:HD21	1:A:2164:SER:O	2.15	0.46
1:A:1679:ASN:HA	1:A:1682:ALA:HB3	1.98	0.46
1:A:1812:LEU:HA	1:A:1815:LEU:HD12	1.97	0.46
2:B:55:VAL:HG21	2:B:59:TRP:HD1	1.81	0.46
1:C:282:ILE:HD12	1:C:314:PHE:HD2	1.81	0.46
1:C:651:GLY:HA2	1:C:776:LEU:HG	1.98	0.46
1:C:1081:TYR:CD2	1:C:1234:VAL:HG13	2.50	0.46
1:C:1586:ASN:O	1:C:1588:ALA:N	2.47	0.46
1:C:4783:ILE:HG22	1:C:4789:PHE:CD2	2.51	0.46
1:E:179:TYR:OH	1:G:2359:ARG:NE	2.49	0.46
1:E:207:SER:HB3	1:E:334:MET:SD	2.56	0.46
1:E:404:ILE:HG21	1:E:481:GLU:HG3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:651:GLY:HA2	1:E:776:LEU:HG	1.98	0.46
1:E:1679:ASN:HA	1:E:1682:ALA:HB3	1.98	0.46
1:G:111:HIS:CD2	1:G:113:HIS:HB3	2.50	0.46
1:G:1943:LEU:HD11	1:G:2098:VAL:HG22	1.98	0.46
1:G:3658:LYS:HA	1:G:3662:ILE:HG13	1.97	0.46
1:G:3768:SER:HA	1:G:3771:HIS:CE1	2.51	0.46
1:A:207:SER:HB3	1:A:334:MET:SD	2.56	0.46
1:A:350:HIS:HD2	1:A:353:SER:N	2.14	0.46
1:A:1586:ASN:O	1:A:1588:ALA:N	2.47	0.46
1:A:1676:LEU:O	1:A:1676:LEU:HD23	2.16	0.46
1:A:4783:ILE:HG22	1:A:4789:PHE:CD2	2.51	0.46
1:C:76:ARG:HE	1:E:3844:LEU:CD2	2.22	0.46
1:C:76:ARG:HH21	1:E:3844:LEU:CD2	2.29	0.46
1:C:1238:PHE:HE2	1:C:1612:PHE:HA	1.81	0.46
1:C:3804:ILE:HG22	1:C:3812:VAL:HG11	1.96	0.46
1:E:118:LEU:HA	1:E:137:LEU:HD23	1.98	0.46
1:E:1100:MET:HE2	1:E:1198:GLN:HB3	1.98	0.46
1:E:1676:LEU:HD21	1:E:2164:SER:O	2.15	0.46
1:E:2100:HIS:O	1:E:2104:ARG:HG2	2.15	0.46
1:G:4192:ARG:NH1	1:G:4982:GLU:OE1	2.48	0.46
1:A:1100:MET:HE2	1:A:1198:GLN:HB3	1.98	0.46
1:A:1609:PRO:O	1:A:1610:ASN:ND2	2.49	0.46
1:C:4818:MET:HA	1:C:4824:ARG:HG2	1.96	0.46
1:E:119:SER:HB3	1:E:146:CYS:HA	1.98	0.46
1:E:891:TRP:HB3	1:E:907:LEU:HD11	1.98	0.46
1:E:1087:ARG:HH12	1:E:1157:GLU:HB3	1.81	0.46
1:E:2198:MET:HE3	1:E:2203:MET:SD	2.56	0.46
2:F:25:HIS:CD2	2:F:104:LEU:HD11	2.51	0.46
1:G:1229:ASN:CG	1:G:1827:ARG:HH11	2.23	0.46
1:G:2206:THR:O	1:G:2210:VAL:HG23	2.15	0.46
1:G:4577:LEU:HG	1:G:4580:TYR:HE1	1.80	0.46
1:A:411:TYR:HB2	1:A:486:LEU:HD21	1.97	0.46
1:A:909:ASN:HA	1:A:965:TYR:CE1	2.51	0.46
1:A:1081:TYR:CD2	1:A:1234:VAL:HG13	2.50	0.46
1:A:1729:SER:O	1:A:1733:GLU:HG2	2.15	0.46
1:A:3844:LEU:CD2	1:G:76:ARG:HH21	2.29	0.46
1:C:118:LEU:HA	1:C:137:LEU:HD23	1.98	0.46
1:C:350:HIS:HD2	1:C:353:SER:N	2.14	0.46
1:C:1850:VAL:HA	1:C:1945:TYR:CE1	2.50	0.46
2:D:73:LYS:HA	2:D:99:PHE:O	2.16	0.46
1:E:909:ASN:HA	1:E:965:TYR:CE1	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1676:LEU:HD23	1:E:1676:LEU:O	2.16	0.46
1:E:3658:LYS:HA	1:E:3662:ILE:HG13	1.98	0.46
1:E:4783:ILE:HG22	1:E:4789:PHE:CD2	2.51	0.46
1:E:4801:LEU:HB3	1:E:4808:PHE:HD2	1.81	0.46
1:E:4829:SER:HA	1:E:4832:HIS:CD2	2.51	0.46
1:G:118:LEU:HA	1:G:137:LEU:HD23	1.98	0.46
1:G:1688:HIS:HE1	2:H:89:GLY:O	1.99	0.46
1:A:495:ASN:HB2	1:A:550:LYS:HZ3	1.81	0.45
1:A:3658:LYS:HA	1:A:3662:ILE:HG13	1.98	0.45
1:C:495:ASN:HB2	1:C:550:LYS:HZ3	1.81	0.45
1:C:683:ARG:HB3	1:C:713:SER:HB2	1.97	0.45
1:C:1087:ARG:HH12	1:C:1157:GLU:HB3	1.81	0.45
1:C:1679:ASN:HA	1:C:1682:ALA:HB3	1.98	0.45
1:C:3919:THR:HG21	1:C:3968:TYR:CE2	2.50	0.45
1:C:4856:PHE:O	1:C:4860:ARG:NH1	2.49	0.45
1:E:111:HIS:NE2	1:E:113:HIS:HB3	2.31	0.45
1:E:675:LEU:CD2	1:E:1633:PRO:HG3	2.46	0.45
1:E:1862:ILE:O	1:E:1865:MET:HB3	2.16	0.45
1:E:3826:VAL:HG23	1:E:3909:ASN:HB3	1.98	0.45
1:E:4105:GLY:HA2	1:E:4108:ILE:HD12	1.98	0.45
2:F:38:SER:HB3	2:F:41:ASP:OD2	2.16	0.45
1:G:767:VAL:O	1:G:1475:THR:OG1	2.24	0.45
1:G:1687:SER:HB2	1:G:1782:PHE:CZ	2.51	0.45
1:A:830:ARG:HD3	1:A:1612:PHE:CZ	2.51	0.45
1:A:891:TRP:HB3	1:A:907:LEU:HD11	1.98	0.45
1:A:3826:VAL:HG23	1:A:3909:ASN:HB3	1.98	0.45
1:A:4888:TYR:HB2	1:G:4914:VAL:HG21	1.98	0.45
1:C:2099:SER:O	1:C:2103:VAL:HG23	2.17	0.45
1:C:2761:TYR:HE2	1:C:2925:GLU:OE2	2.00	0.45
1:C:3826:VAL:HG23	1:C:3909:ASN:HB3	1.98	0.45
1:C:4087:LEU:HD23	1:C:4122:MET:HB3	1.98	0.45
2:D:38:SER:HB3	2:D:41:ASP:OD2	2.16	0.45
1:E:2867:LEU:HG	1:E:2928:LYS:HZ3	1.82	0.45
1:G:110:ARG:NH2	1:G:115:ARG:HD2	2.28	0.45
1:G:207:SER:HB3	1:G:334:MET:SD	2.56	0.45
1:G:651:GLY:HA2	1:G:776:LEU:HG	1.98	0.45
1:G:1812:LEU:HA	1:G:1815:LEU:HD12	1.97	0.45
1:G:3102:ASP:O	1:G:3106:MET:N	2.49	0.45
1:A:111:HIS:NE2	1:A:113:HIS:HB3	2.32	0.45
1:A:855:PRO:HG2	1:A:998:ARG:HD2	1.96	0.45
1:A:3663:LEU:HA	1:A:3664:THR:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4856:PHE:O	1:A:4860:ARG:NH1	2.49	0.45
1:C:46:LEU:HD13	1:C:125:ARG:NH1	2.32	0.45
1:C:1812:LEU:HA	1:C:1815:LEU:HD12	1.97	0.45
1:E:110:ARG:NH2	1:E:115:ARG:HD2	2.28	0.45
1:E:767:VAL:O	1:E:1475:THR:OG1	2.24	0.45
1:E:2122:SER:O	1:E:2125:HIS:HB3	2.17	0.45
1:G:111:HIS:NE2	1:G:113:HIS:HB3	2.31	0.45
1:G:350:HIS:HD2	1:G:353:SER:N	2.14	0.45
1:G:663:TYR:OH	1:G:804:PRO:HD2	2.16	0.45
1:G:830:ARG:HD3	1:G:1612:PHE:CZ	2.50	0.45
1:G:1205:GLY:HA2	1:G:1225:PRO:HB3	1.99	0.45
1:G:1611:HIS:HB2	1:G:1652:GLU:CB	2.45	0.45
1:G:1862:ILE:O	1:G:1865:MET:HB3	2.16	0.45
1:G:3838:THR:OG1	1:G:3839:CYS:N	2.49	0.45
1:G:4192:ARG:NH1	1:G:5028:PHE:CD2	2.84	0.45
1:G:4640:GLU:HB3	1:G:4641:PRO:HD3	1.98	0.45
1:A:1862:ILE:O	1:A:1865:MET:HB3	2.16	0.45
1:C:1688:HIS:HE1	2:D:89:GLY:O	2.00	0.45
1:C:2711:PRO:HA	1:C:3016:TYR:HA	1.98	0.45
1:C:3971:GLY:HA2	1:C:5005:GLY:HA3	1.98	0.45
1:C:4047:MET:HG3	1:C:4048:LEU:N	2.32	0.45
1:G:842:PRO:HD2	1:G:1196:PRO:HA	1.99	0.45
1:G:909:ASN:HA	1:G:965:TYR:CE1	2.50	0.45
1:G:1238:PHE:HE2	1:G:1612:PHE:HA	1.81	0.45
1:G:1954:ARG:HG2	1:G:2134:LEU:HD12	1.98	0.45
1:G:4686:LEU:HA	1:G:4690:GLU:HB2	1.98	0.45
1:A:76:ARG:HH21	1:C:3844:LEU:CD2	2.29	0.45
1:A:1087:ARG:HH12	1:A:1157:GLU:HB3	1.81	0.45
1:A:1940:CYS:SG	1:A:2123:LEU:HD12	2.57	0.45
1:A:1947:CYS:SG	1:A:2127:GLN:NE2	2.89	0.45
1:A:3934:TYR:OH	1:A:3998:HIS:HB3	2.16	0.45
1:C:207:SER:HB3	1:C:334:MET:SD	2.56	0.45
1:C:891:TRP:HB3	1:C:907:LEU:HD11	1.98	0.45
1:C:1940:CYS:SG	1:C:2123:LEU:HD12	2.57	0.45
1:C:2100:HIS:O	1:C:2104:ARG:HG2	2.15	0.45
1:C:2198:MET:HE3	1:C:2203:MET:SD	2.56	0.45
1:C:5022:PHE:HA	1:C:5023:PRO:HD3	1.71	0.45
1:E:1767:VAL:O	1:E:1769:THR:N	2.50	0.45
1:E:2761:TYR:HE2	1:E:2925:GLU:OE2	1.99	0.45
1:G:772:ASN:HD21	1:G:1467:SER:HA	1.82	0.45
1:A:282:ILE:HD12	1:A:314:PHE:HD2	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1770:SER:OG	1:A:1771:LEU:N	2.49	0.45
1:C:111:HIS:NE2	1:C:113:HIS:HB3	2.32	0.45
1:C:1748:PHE:HZ	1:C:2072:LEU:HB2	1.81	0.45
1:C:1770:SER:OG	1:C:1771:LEU:N	2.49	0.45
1:C:1862:ILE:O	1:C:1865:MET:HB3	2.16	0.45
1:C:3663:LEU:HA	1:C:3664:THR:O	2.16	0.45
1:E:1093:GLU:HG2	1:E:1148:VAL:HG22	1.97	0.45
1:E:1940:CYS:SG	1:E:2123:LEU:HD12	2.57	0.45
1:E:2283:ASN:HB2	1:E:2286:LEU:HB2	1.99	0.45
1:G:282:ILE:HD12	1:G:314:PHE:HD2	1.81	0.45
1:G:411:TYR:HB2	1:G:486:LEU:HD21	1.98	0.45
1:G:633:LEU:HB2	1:G:1663:HIS:HD2	1.82	0.45
1:G:2142:TYR:CD2	1:G:2197:LEU:HB2	2.52	0.45
2:H:67:SER:N	2:H:70:GLN:OE1	2.38	0.45
1:A:527:ALA:O	1:A:531:ARG:HG3	2.17	0.45
1:A:635:THR:HG23	1:A:1693:GLN:HE22	1.82	0.45
1:A:1954:ARG:HG2	1:A:2134:LEU:HD12	1.99	0.45
1:C:262:LEU:HD23	1:C:282:ILE:HG12	1.99	0.45
1:C:4105:GLY:HA2	1:C:4108:ILE:HD12	1.98	0.45
1:E:154:SER:HB3	1:E:156:GLN:OE1	2.17	0.45
1:E:262:LEU:HD23	1:E:282:ILE:HG12	1.99	0.45
1:E:491:ILE:HG22	1:E:495:ASN:HD21	1.82	0.45
1:E:633:LEU:HB2	1:E:1663:HIS:HD2	1.82	0.45
1:E:772:ASN:HD21	1:E:1467:SER:HA	1.82	0.45
1:E:830:ARG:HD3	1:E:1612:PHE:CZ	2.52	0.45
1:E:1850:VAL:HA	1:E:1945:TYR:CE1	2.51	0.45
1:E:2060:SER:HA	1:E:2063:LEU:HD12	1.99	0.45
1:G:1729:SER:O	1:G:1733:GLU:HG2	2.16	0.45
1:G:2122:SER:O	1:G:2125:HIS:HB3	2.17	0.45
1:G:2198:MET:HE3	1:G:2203:MET:SD	2.57	0.45
1:G:2283:ASN:HB2	1:G:2286:LEU:HB2	1.99	0.45
1:G:2497:ASP:OD1	1:G:2498:HIS:N	2.50	0.45
1:A:3838:THR:OG1	1:A:3839:CYS:N	2.50	0.45
1:A:4807:PHE:HD2	1:G:4857:ASN:HD21	1.60	0.45
1:C:404:ILE:HG21	1:C:481:GLU:HG3	1.98	0.45
1:C:491:ILE:HG22	1:C:495:ASN:HD21	1.82	0.45
1:C:1767:VAL:O	1:C:1769:THR:N	2.50	0.45
1:C:2819:TRP:CZ3	1:C:2877:GLN:HG2	2.52	0.45
1:C:4930:ALA:HB2	1:E:4933:GLN:HG2	1.98	0.45
2:D:25:HIS:CD2	2:D:104:LEU:HD11	2.51	0.45
1:E:282:ILE:HD12	1:E:314:PHE:HD2	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:663:TYR:OH	1:E:804:PRO:HD2	2.15	0.45
1:E:1690:ASP:OD1	2:F:41:ASP:HB3	2.17	0.45
1:E:2497:ASP:OD1	1:E:2498:HIS:N	2.50	0.45
1:E:2773:ASN:HB3	1:E:2775:TRP:CD1	2.52	0.45
1:E:4047:MET:HG3	1:E:4048:LEU:N	2.32	0.45
1:G:1229:ASN:CB	1:G:1827:ARG:HH11	2.30	0.45
1:G:1770:SER:OG	1:G:1771:LEU:N	2.49	0.45
1:A:401:ALA:O	1:A:404:ILE:HB	2.17	0.45
1:A:1943:LEU:HD11	1:A:2098:VAL:HG22	1.99	0.45
1:A:2099:SER:O	1:A:2103:VAL:HG23	2.17	0.45
1:A:2423:MET:HG3	1:A:2498:HIS:CE1	2.52	0.45
1:A:2773:ASN:HB3	1:A:2775:TRP:CD1	2.52	0.45
1:A:3891:LEU:HB3	1:A:3899:PHE:HE2	1.82	0.45
2:B:25:HIS:CD2	2:B:104:LEU:HD11	2.51	0.45
1:C:1229:ASN:CB	1:C:1827:ARG:HH11	2.30	0.45
1:C:1947:CYS:SG	1:C:2127:GLN:NE2	2.89	0.45
1:C:4555:LEU:HD11	1:C:4656:LEU:HG	1.98	0.45
1:C:4801:LEU:HB3	1:C:4808:PHE:HD2	1.81	0.45
1:E:2819:TRP:CZ3	1:E:2877:GLN:HG2	2.52	0.45
1:E:3663:LEU:HA	1:E:3664:THR:O	2.16	0.45
1:E:3971:GLY:HA2	1:E:5005:GLY:HA3	1.98	0.45
2:F:73:LYS:HA	2:F:99:PHE:O	2.16	0.45
1:G:527:ALA:O	1:G:531:ARG:HG3	2.17	0.45
1:G:1087:ARG:HH12	1:G:1157:GLU:HB3	1.81	0.45
1:G:1198:GLN:OE1	1:G:1198:GLN:N	2.49	0.45
1:G:1289:LEU:HD12	1:G:1562:ILE:HD13	1.99	0.45
1:G:2773:ASN:HB3	1:G:2775:TRP:CD1	2.52	0.45
1:G:4056:GLU:OE2	1:G:4166:LEU:HD11	2.17	0.45
1:A:118:LEU:HA	1:A:137:LEU:HD23	1.98	0.45
1:A:247:TYR:CE2	1:A:359:TYR:HB3	2.52	0.45
1:A:1076:ARG:HH22	1:A:1609:PRO:CB	2.30	0.45
1:A:2711:PRO:HA	1:A:3016:TYR:HA	1.98	0.45
1:C:284:HIS:NE2	1:C:286:THR:OG1	2.49	0.45
1:C:1205:GLY:HA2	1:C:1225:PRO:HB3	1.99	0.45
1:C:2122:SER:O	1:C:2125:HIS:HB3	2.17	0.45
1:C:4963:ILE:HD12	1:C:5030:LYS:HZ1	1.80	0.45
1:E:401:ALA:O	1:E:404:ILE:HB	2.17	0.45
1:E:2927:LEU:HD22	1:E:2937:VAL:HG11	1.98	0.45
1:E:3842:LEU:HD11	1:E:3950:ASN:O	2.17	0.45
1:E:4030:LEU:CG	1:E:4040:ILE:HD11	2.44	0.45
1:E:4183:ILE:HD12	1:E:4185:GLY:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4555:LEU:HD11	1:E:4656:LEU:HG	1.98	0.45
1:E:4735:GLU:O	1:E:4739:GLU:N	2.45	0.45
1:G:1104:TRP:CD1	1:G:1153:ILE:HB	2.52	0.45
1:G:3105:LYS:O	1:G:3109:ASN:N	2.49	0.45
1:A:244:LEU:HD22	1:A:375:LYS:HZ1	1.82	0.44
1:A:1280:GLN:NE2	1:A:1559:GLN:OE1	2.51	0.44
1:A:1288:PHE:HE2	1:A:1460:HIS:HA	1.82	0.44
1:A:2497:ASP:OD1	1:A:2498:HIS:N	2.50	0.44
1:A:2761:TYR:HE2	1:A:2925:GLU:OE2	1.99	0.44
1:A:2927:LEU:HD22	1:A:2937:VAL:HG11	1.98	0.44
1:A:4849:TYR:HA	1:A:4852:THR:HG22	1.98	0.44
1:C:119:SER:HB3	1:C:146:CYS:HA	2.00	0.44
1:C:247:TYR:CE2	1:C:359:TYR:HB3	2.52	0.44
1:C:1954:ARG:HG2	1:C:2134:LEU:HD12	1.99	0.44
1:C:3658:LYS:HA	1:C:3662:ILE:HG13	1.98	0.44
1:C:3842:LEU:HD11	1:C:3950:ASN:O	2.17	0.44
1:E:1947:CYS:SG	1:E:2127:GLN:NE2	2.89	0.44
1:E:3919:THR:HG21	1:E:3968:TYR:CE2	2.49	0.44
1:E:4023:MET:O	1:E:4026:MET:HB3	2.17	0.44
1:E:4677:LEU:CD1	1:E:4702:ASP:HB3	2.47	0.44
1:G:293:LEU:HD13	1:G:378:LEU:HD12	1.99	0.44
1:G:401:ALA:O	1:G:404:ILE:HB	2.17	0.44
1:G:491:ILE:HG22	1:G:495:ASN:HD21	1.82	0.44
1:A:100:THR:HG21	1:A:162:LYS:NZ	2.33	0.44
1:A:675:LEU:CD2	1:A:1633:PRO:HG3	2.46	0.44
1:A:842:PRO:HD2	1:A:1196:PRO:HA	1.99	0.44
1:A:1243:PRO:HD2	1:A:1458:HIS:CB	2.47	0.44
1:A:2060:SER:HA	1:A:2063:LEU:HD12	1.98	0.44
1:A:3842:LEU:HD11	1:A:3950:ASN:O	2.17	0.44
1:A:4573:ILE:HG21	1:A:4809:PHE:CE2	2.53	0.44
1:A:4801:LEU:HB3	1:A:4808:PHE:HD2	1.83	0.44
2:B:25:HIS:NE2	2:B:104:LEU:HD11	2.33	0.44
1:C:495:ASN:CA	1:C:553:ARG:HH12	2.28	0.44
1:C:635:THR:HG23	1:C:1693:GLN:HE22	1.83	0.44
1:C:2497:ASP:OD1	1:C:2498:HIS:N	2.50	0.44
1:C:4638:TYR:O	1:C:4641:PRO:HD2	2.18	0.44
2:D:25:HIS:NE2	2:D:104:LEU:HD11	2.33	0.44
1:E:284:HIS:NE2	1:E:286:THR:OG1	2.49	0.44
1:E:2099:SER:O	1:E:2103:VAL:HG23	2.17	0.44
1:E:2816:MET:HG2	1:E:2878:LEU:HD21	1.99	0.44
1:G:247:TYR:CE2	1:G:359:TYR:HB3	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:404:ILE:HG21	1:G:481:GLU:HG3	1.98	0.44
1:G:3658:LYS:HA	1:G:3662:ILE:CG1	2.47	0.44
1:A:46:LEU:HD13	1:A:125:ARG:NH1	2.32	0.44
1:A:58:VAL:HG22	1:A:305:CYS:HA	1.99	0.44
1:A:771:PHE:HE1	1:A:1472:VAL:HG13	1.82	0.44
1:A:1727:ARG:HG2	1:A:1727:ARG:O	2.17	0.44
1:A:1773:PRO:HA	1:A:1774:PRO:HD3	1.90	0.44
1:A:2242:ILE:HD11	1:A:2246:ASN:HD22	1.83	0.44
1:A:3886:ARG:O	1:A:3890:LEU:HD13	2.17	0.44
1:A:3940:LYS:O	1:A:3942:VAL:N	2.50	0.44
1:A:4047:MET:HG3	1:A:4048:LEU:N	2.32	0.44
2:B:38:SER:HB3	2:B:41:ASP:OD2	2.16	0.44
1:C:134:ASP:OD1	1:C:135:VAL:N	2.51	0.44
1:C:1969:LEU:O	1:C:1973:GLN:HG3	2.18	0.44
1:C:3706:SER:O	1:C:3710:LEU:HG	2.17	0.44
1:C:4680:LYS:HE2	1:C:4686:LEU:HD21	2.00	0.44
1:E:350:HIS:HD2	1:E:353:SER:N	2.15	0.44
1:E:842:PRO:HD2	1:E:1196:PRO:HA	1.99	0.44
1:E:1280:GLN:NE2	1:E:1559:GLN:OE1	2.51	0.44
1:E:4922:PHE:HA	1:E:4926:VAL:HB	1.97	0.44
1:G:673:PRO:O	1:G:679:ALA:HA	2.17	0.44
1:G:3674:ILE:HG22	1:G:3769:ARG:HD3	2.00	0.44
1:A:119:SER:HB3	1:A:146:CYS:HA	2.00	0.44
1:A:495:ASN:HB3	1:A:553:ARG:NH2	2.23	0.44
1:A:1205:GLY:HA2	1:A:1225:PRO:HB3	1.99	0.44
1:A:1690:ASP:OD1	2:B:41:ASP:HB3	2.17	0.44
1:A:1767:VAL:O	1:A:1769:THR:N	2.50	0.44
1:A:4640:GLU:HB3	1:A:4641:PRO:HD3	2.00	0.44
1:C:527:ALA:O	1:C:531:ARG:HG3	2.17	0.44
1:C:1629:GLN:HE21	1:C:1631:GLN:HE21	1.65	0.44
1:C:1704:PRO:HG2	1:C:1707:LEU:HD12	1.99	0.44
1:E:402:ARG:CZ	1:E:405:HIS:HD2	2.31	0.44
1:E:1727:ARG:O	1:E:1727:ARG:HG2	2.17	0.44
1:E:1765:VAL:HG21	1:E:1953:HIS:CE1	2.53	0.44
1:E:1936:LYS:HA	1:E:1939:MET:HB3	2.00	0.44
1:G:771:PHE:HE1	1:G:1472:VAL:HG13	1.82	0.44
1:G:1093:GLU:HG2	1:G:1148:VAL:HG22	1.98	0.44
1:G:1765:VAL:HG21	1:G:1953:HIS:CE1	2.52	0.44
1:G:2060:SER:HA	1:G:2063:LEU:HD12	1.98	0.44
1:G:2336:ARG:HD2	1:G:2435:ARG:NH1	2.33	0.44
1:G:2754:PHE:CZ	1:G:2930:LEU:HD23	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3992:PHE:O	1:G:3996:PHE:N	2.37	0.44
1:A:404:ILE:HG21	1:A:481:GLU:HG3	1.98	0.44
1:A:1238:PHE:HE1	1:A:1612:PHE:HA	1.82	0.44
1:A:1765:VAL:HG21	1:A:1953:HIS:CE1	2.52	0.44
1:A:2283:ASN:HB2	1:A:2286:LEU:HB2	1.99	0.44
1:A:2819:TRP:CZ3	1:A:2877:GLN:HG2	2.52	0.44
1:A:3971:GLY:HA2	1:A:5005:GLY:HA3	1.98	0.44
1:A:4105:GLY:HA2	1:A:4108:ILE:HD12	1.98	0.44
1:A:4555:LEU:HD11	1:A:4656:LEU:HG	1.98	0.44
1:A:4577:LEU:HG	1:A:4580:TYR:HE1	1.82	0.44
1:C:100:THR:HG21	1:C:162:LYS:NZ	2.33	0.44
1:C:359:TYR:CD1	1:C:374:LYS:HD3	2.53	0.44
1:C:1100:MET:HE2	1:C:1198:GLN:HB3	2.00	0.44
1:C:1690:ASP:OD1	2:D:41:ASP:HB3	2.17	0.44
1:C:1833:SER:HB3	1:C:1836:PHE:HD2	1.83	0.44
1:C:2060:SER:HA	1:C:2063:LEU:HD12	1.98	0.44
1:C:2211:MET:HE1	1:C:2272:PRO:HB3	2.00	0.44
1:C:2423:MET:HG3	1:C:2498:HIS:CE1	2.53	0.44
1:E:4088:ILE:O	1:E:4123:ILE:N	2.51	0.44
1:E:4642:ALA:HA	1:E:4645:CYS:SG	2.58	0.44
1:E:4786:ASP:OD1	1:E:4787:ASN:N	2.51	0.44
2:F:25:HIS:NE2	2:F:104:LEU:HD11	2.33	0.44
1:G:402:ARG:CZ	1:G:405:HIS:HD2	2.31	0.44
1:G:1745:ILE:O	1:G:1746:THR:OG1	2.25	0.44
1:G:1833:SER:HB3	1:G:1836:PHE:HD2	1.82	0.44
1:G:2747:ILE:HG12	1:G:2817:ILE:HD12	1.98	0.44
1:A:959:TYR:HE2	1:A:966:LYS:HB2	1.83	0.44
1:A:1629:GLN:HE21	1:A:1631:GLN:HE21	1.66	0.44
1:A:1688:HIS:HE1	2:B:89:GLY:O	2.00	0.44
1:A:4638:TYR:O	1:A:4641:PRO:HD2	2.18	0.44
1:C:402:ARG:CZ	1:C:405:HIS:HD2	2.30	0.44
1:C:2283:ASN:HB2	1:C:2286:LEU:HB2	1.99	0.44
1:C:4677:LEU:CD1	1:C:4702:ASP:HB3	2.48	0.44
1:C:4849:TYR:HA	1:C:4852:THR:HG22	1.99	0.44
1:E:134:ASP:OD1	1:E:135:VAL:N	2.51	0.44
1:E:247:TYR:CE2	1:E:359:TYR:HB3	2.53	0.44
1:E:527:ALA:O	1:E:531:ARG:HG3	2.17	0.44
1:E:1198:GLN:OE1	1:E:1198:GLN:N	2.49	0.44
1:E:1289:LEU:HD12	1:E:1562:ILE:HD13	1.99	0.44
1:E:3706:SER:O	1:E:3710:LEU:HG	2.17	0.44
1:E:4026:MET:O	1:E:4029:SER:OG	2.21	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4879:MET:HG2	1:G:4577:LEU:O	2.18	0.44
2:F:78:PRO:O	2:F:83:GLY:N	2.51	0.44
1:G:746:CYS:HA	1:G:757:PHE:CD1	2.53	0.44
1:G:1610:ASN:HA	1:G:1652:GLU:OE2	2.18	0.44
1:G:1704:PRO:HG2	1:G:1707:LEU:HD12	1.99	0.44
1:G:2891:LYS:O	1:G:2895:GLU:HG3	2.18	0.44
1:G:3701:LEU:HD11	1:G:3725:TYR:CD1	2.52	0.44
1:G:4004:ALA:O	1:G:4114:CYS:HA	2.18	0.44
1:A:180:LEU:O	1:A:200:TRP:NE1	2.51	0.44
1:A:746:CYS:HA	1:A:757:PHE:CD1	2.53	0.44
1:A:1229:ASN:CB	1:A:1827:ARG:HH11	2.30	0.44
1:A:1833:SER:HB3	1:A:1836:PHE:HD2	1.83	0.44
1:A:2336:ARG:HD2	1:A:2435:ARG:NH1	2.33	0.44
1:A:3706:SER:O	1:A:3710:LEU:HG	2.18	0.44
1:A:3727:ASP:O	1:A:3731:LYS:NZ	2.42	0.44
1:A:4642:ALA:HA	1:A:4645:CYS:SG	2.58	0.44
1:C:772:ASN:HD21	1:C:1467:SER:HA	1.82	0.44
1:C:1289:LEU:HD12	1:C:1562:ILE:HD13	1.98	0.44
1:C:2242:ILE:HD11	1:C:2246:ASN:HD22	1.83	0.44
1:C:4023:MET:O	1:C:4026:MET:HB3	2.17	0.44
1:E:771:PHE:HE1	1:E:1472:VAL:HG13	1.82	0.44
1:E:1238:PHE:HE1	1:E:1612:PHE:HA	1.83	0.44
1:E:3940:LYS:O	1:E:3942:VAL:N	2.50	0.44
1:E:4680:LYS:HE2	1:E:4686:LEU:HD21	1.99	0.44
1:G:119:SER:HB3	1:G:146:CYS:HA	2.00	0.44
1:G:635:THR:HG23	1:G:1693:GLN:HE22	1.83	0.44
1:G:1244:GLN:HE22	1:G:1646:ARG:HH21	1.66	0.44
1:G:1767:VAL:O	1:G:1769:THR:N	2.50	0.44
1:G:1936:LYS:HA	1:G:1939:MET:HB3	2.00	0.44
1:G:1969:LEU:O	1:G:1973:GLN:HG3	2.18	0.44
2:H:88:PRO:O	2:H:90:ILE:HD12	2.16	0.44
1:A:2336:ARG:HD2	1:A:2435:ARG:CZ	2.48	0.44
1:A:4677:LEU:CD1	1:A:4702:ASP:HB3	2.47	0.44
1:A:4807:PHE:CZ	1:G:4856:PHE:CD2	3.06	0.44
1:C:401:ALA:O	1:C:404:ILE:HB	2.17	0.44
1:C:675:LEU:CD2	1:C:1633:PRO:HG3	2.47	0.44
1:C:1280:GLN:NE2	1:C:1559:GLN:OE1	2.51	0.44
1:C:2380:ILE:HG23	1:C:2423:MET:SD	2.58	0.44
1:C:2773:ASN:HB3	1:C:2775:TRP:CD1	2.52	0.44
1:E:21:VAL:HG13	1:E:205:ILE:HD11	2.00	0.44
1:E:293:LEU:HD13	1:E:378:LEU:HD12	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1089:TYR:CE2	1:E:1214:PHE:HD1	2.36	0.44
1:E:2244:ARG:O	1:E:2247:GLN:HB3	2.18	0.44
1:E:4640:GLU:HB3	1:E:4641:PRO:HD3	2.00	0.44
1:G:1727:ARG:HG2	1:G:1727:ARG:O	2.18	0.44
1:G:4579:PHE:HD2	1:G:4639:MET:HE1	1.82	0.44
1:A:402:ARG:CZ	1:A:405:HIS:HD2	2.30	0.44
1:A:633:LEU:HB2	1:A:1663:HIS:HD2	1.82	0.44
1:A:1839:VAL:HB	1:A:1840:PRO:HD3	2.00	0.44
1:A:2122:SER:O	1:A:2125:HIS:HB3	2.17	0.44
1:A:2142:TYR:CE2	1:A:2197:LEU:HB2	2.53	0.44
1:A:3895:HIS:HE1	1:A:3970:GLN:HG3	1.83	0.44
1:C:1244:GLN:HE22	1:C:1646:ARG:HH21	1.66	0.44
1:C:1739:THR:O	1:C:1742:THR:OG1	2.31	0.44
1:C:3940:LYS:O	1:C:3942:VAL:N	2.50	0.44
1:E:1745:ILE:O	1:E:1746:THR:OG1	2.25	0.44
1:E:2336:ARG:HD2	1:E:2435:ARG:NH1	2.33	0.44
1:E:3886:ARG:O	1:E:3890:LEU:HD13	2.17	0.44
1:E:4926:VAL:HG12	1:G:4932:ILE:HG21	2.00	0.44
1:G:484:LEU:HD21	1:G:540:PHE:CE1	2.53	0.44
1:G:1254:HIS:HD2	1:G:1280:GLN:HB2	1.83	0.44
1:G:1629:GLN:HE21	1:G:1631:GLN:HE21	1.66	0.44
1:G:1738:LEU:HD11	1:G:2143:THR:HB	2.00	0.44
1:G:2242:ILE:HD11	1:G:2246:ASN:HD22	1.82	0.44
1:G:2423:MET:HG3	1:G:2498:HIS:CE1	2.52	0.44
1:G:2551:ASN:HA	1:G:2554:LEU:HG	2.00	0.44
1:G:3878:ASP:HB2	1:G:3957:VAL:HG21	2.00	0.44
1:A:293:LEU:HD13	1:A:378:LEU:HD12	1.99	0.43
1:A:468:LEU:O	1:A:472:ARG:HG2	2.18	0.43
1:A:491:ILE:HG22	1:A:495:ASN:HD21	1.82	0.43
1:A:1293:LEU:HD21	1:A:1585:LYS:NZ	2.33	0.43
1:A:2211:MET:HE1	1:A:2272:PRO:HB3	2.00	0.43
2:B:7:ILE:HD11	2:B:73:LYS:HB2	1.99	0.43
1:C:484:LEU:HD21	1:C:540:PHE:CE1	2.53	0.43
1:C:1198:GLN:OE1	1:C:1198:GLN:N	2.49	0.43
1:C:1727:ARG:O	1:C:1727:ARG:HG2	2.17	0.43
1:C:1765:VAL:HG21	1:C:1953:HIS:CE1	2.53	0.43
1:C:2336:ARG:HD2	1:C:2435:ARG:CZ	2.48	0.43
1:C:3657:TYR:O	1:C:3662:ILE:HG12	2.18	0.43
1:E:359:TYR:CD1	1:E:374:LYS:HD3	2.53	0.43
1:E:764:VAL:O	1:E:764:VAL:HG12	2.18	0.43
1:E:1688:HIS:HE1	2:F:89:GLY:O	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2134:LEU:O	1:E:2138:LEU:HG	2.18	0.43
1:E:2380:ILE:HG23	1:E:2423:MET:SD	2.58	0.43
1:G:222:LEU:HB3	1:G:388:LEU:HD13	2.00	0.43
1:G:891:TRP:HB3	1:G:907:LEU:HD11	1.99	0.43
1:G:1293:LEU:HD21	1:G:1585:LYS:NZ	2.33	0.43
1:G:4209:GLN:O	1:G:4213:SER:N	2.47	0.43
1:G:4849:TYR:HA	1:G:4852:THR:HG22	2.00	0.43
1:A:359:TYR:CD1	1:A:374:LYS:HD3	2.53	0.43
1:A:764:VAL:O	1:A:764:VAL:HG12	2.18	0.43
1:A:772:ASN:HD21	1:A:1467:SER:HA	1.82	0.43
1:A:1104:TRP:CD1	1:A:1153:ILE:HB	2.53	0.43
1:A:1254:HIS:HD2	1:A:1280:GLN:HB2	1.83	0.43
1:A:1611:HIS:HB2	1:A:1652:GLU:CB	2.47	0.43
1:A:1828:ASP:HB3	1:A:1830:VAL:H	1.83	0.43
1:A:1936:LYS:HA	1:A:1939:MET:HB3	2.01	0.43
1:A:2340:PHE:CD1	1:A:2435:ARG:HD2	2.54	0.43
1:A:2380:ILE:HG23	1:A:2423:MET:SD	2.58	0.43
1:A:2551:ASN:HA	1:A:2554:LEU:HG	2.00	0.43
1:A:4023:MET:O	1:A:4026:MET:HB3	2.17	0.43
1:C:633:LEU:HB2	1:C:1663:HIS:HD2	1.82	0.43
1:C:673:PRO:O	1:C:679:ALA:HA	2.18	0.43
1:C:771:PHE:HE1	1:C:1472:VAL:HG13	1.82	0.43
1:C:1710:GLY:O	1:C:1714:LEU:HG	2.19	0.43
1:C:2163:ARG:O	1:C:2166:LEU:HB3	2.18	0.43
1:C:2770:LYS:HB3	1:C:2775:TRP:CB	2.44	0.43
1:C:4640:GLU:HB3	1:C:4641:PRO:HD3	2.00	0.43
1:E:892:THR:O	1:E:903:LEU:HA	2.19	0.43
1:E:959:TYR:HE2	1:E:966:LYS:HB2	1.83	0.43
1:E:1252:HIS:C	1:E:1254:HIS:N	2.72	0.43
1:E:1954:ARG:HG2	1:E:2134:LEU:HD12	1.99	0.43
1:E:2747:ILE:HG22	1:E:2748:PRO:O	2.18	0.43
1:E:4980:LEU:HA	1:E:4984:ASN:HB3	2.01	0.43
1:G:46:LEU:HD13	1:G:125:ARG:NH1	2.32	0.43
1:G:359:TYR:CD1	1:G:374:LYS:HD3	2.53	0.43
1:G:2145:SER:HB3	1:G:3647:HIS:CD2	2.54	0.43
1:G:3923:LEU:HD12	1:G:3961:VAL:HG13	2.00	0.43
1:A:664:PHE:HE2	1:A:686:TRP:CZ2	2.36	0.43
1:A:3719:ASP:HB2	1:A:3793:MET:HE1	2.00	0.43
1:A:4576:ILE:HG22	1:A:4643:LEU:HD12	2.01	0.43
1:A:4680:LYS:HE2	1:A:4686:LEU:HD21	2.00	0.43
1:C:714:TYR:CB	1:C:757:PHE:HD2	2.28	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:746:CYS:HA	1:C:757:PHE:CD1	2.53	0.43
1:C:892:THR:O	1:C:903:LEU:HA	2.19	0.43
1:C:1828:ASP:HB3	1:C:1830:VAL:H	1.83	0.43
1:C:2134:LEU:O	1:C:2138:LEU:HG	2.18	0.43
1:C:2551:ASN:HA	1:C:2554:LEU:HG	2.00	0.43
1:E:180:LEU:O	1:E:200:TRP:NE1	2.51	0.43
1:E:635:THR:HG23	1:E:1693:GLN:HE22	1.82	0.43
1:E:1232:ARG:HE	1:E:1701:ALA:HB3	1.83	0.43
1:E:1293:LEU:HD21	1:E:1585:LYS:NZ	2.33	0.43
1:E:2142:TYR:CE2	1:E:2197:LEU:HB2	2.54	0.43
1:E:2423:MET:HG3	1:E:2498:HIS:CE1	2.52	0.43
2:F:7:ILE:HD11	2:F:73:LYS:HB2	2.00	0.43
1:G:2211:MET:HE1	1:G:2272:PRO:HB3	2.00	0.43
1:G:4661:TYR:HE2	1:G:4789:PHE:HB2	1.83	0.43
2:H:2:VAL:HG23	2:H:76:ILE:HA	1.99	0.43
1:A:222:LEU:HB3	1:A:388:LEU:HD13	2.01	0.43
1:A:484:LEU:HD21	1:A:540:PHE:CE1	2.54	0.43
1:A:1289:LEU:HD12	1:A:1562:ILE:HD13	1.99	0.43
1:A:1969:LEU:O	1:A:1973:GLN:HG3	2.18	0.43
1:A:2244:ARG:O	1:A:2247:GLN:HB3	2.18	0.43
1:A:2816:MET:HG2	1:A:2878:LEU:HD21	1.99	0.43
1:A:4922:PHE:HA	1:A:4926:VAL:HB	2.00	0.43
1:C:217:GLY:O	1:C:261:ARG:NH1	2.52	0.43
1:C:4027:LEU:C	1:C:4027:LEU:HD12	2.43	0.43
1:C:4829:SER:HA	1:C:4832:HIS:CD2	2.54	0.43
1:C:4980:LEU:HA	1:C:4984:ASN:HB3	2.00	0.43
1:E:46:LEU:HD13	1:E:125:ARG:NH1	2.33	0.43
1:E:468:LEU:O	1:E:472:ARG:HG2	2.18	0.43
1:E:746:CYS:HA	1:E:757:PHE:CD1	2.53	0.43
1:E:1969:LEU:O	1:E:1973:GLN:HG3	2.17	0.43
1:E:2242:ILE:HD11	1:E:2246:ASN:HD22	1.82	0.43
1:E:2336:ARG:HD2	1:E:2435:ARG:CZ	2.48	0.43
1:E:3657:TYR:O	1:E:3662:ILE:HG12	2.18	0.43
1:E:3985:LEU:HA	1:E:3988:ALA:HB3	2.00	0.43
1:E:4027:LEU:C	1:E:4027:LEU:HD12	2.43	0.43
1:G:764:VAL:O	1:G:764:VAL:HG12	2.18	0.43
1:G:1828:ASP:HB3	1:G:1830:VAL:H	1.83	0.43
1:G:5026:ASP:O	1:G:5027:CYS:SG	2.76	0.43
1:A:765:GLN:HE21	1:A:1479:GLU:H	1.66	0.43
1:A:1704:PRO:HG2	1:A:1707:LEU:HD12	1.99	0.43
1:A:4980:LEU:HA	1:A:4984:ASN:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:58:VAL:HG22	1:C:305:CYS:HA	2.01	0.43
1:C:308:HIS:CE1	1:C:311:ALA:HB2	2.54	0.43
1:C:764:VAL:O	1:C:764:VAL:HG12	2.19	0.43
1:C:959:TYR:HE2	1:C:966:LYS:HB2	1.83	0.43
1:C:1293:LEU:HD21	1:C:1585:LYS:NZ	2.33	0.43
1:C:1936:LYS:HA	1:C:1939:MET:HB3	2.00	0.43
1:C:1958:LEU:HD23	1:C:2138:LEU:HD21	2.01	0.43
1:C:2142:TYR:CE2	1:C:2197:LEU:HB2	2.54	0.43
1:C:4239:GLU:OE1	1:C:4675:LYS:HD2	2.18	0.43
1:C:4786:ASP:OD1	1:C:4787:ASN:N	2.51	0.43
1:C:4922:PHE:HA	1:C:4926:VAL:HB	2.00	0.43
1:E:484:LEU:HD21	1:E:540:PHE:CE1	2.54	0.43
1:E:673:PRO:O	1:E:679:ALA:HA	2.18	0.43
1:E:1018:ASN:HB3	1:E:1021:LEU:HG	2.00	0.43
1:E:1254:HIS:HD2	1:E:1280:GLN:HB2	1.83	0.43
1:E:2340:PHE:CD1	1:E:2435:ARG:HD2	2.53	0.43
1:E:2711:PRO:HA	1:E:3016:TYR:HA	1.98	0.43
1:G:1280:GLN:NE2	1:G:1559:GLN:OE1	2.51	0.43
1:G:4855:ALA:HB1	1:G:4863:TYR:CE2	2.54	0.43
2:H:99:PHE:HB3	2:H:101:VAL:HG23	2.00	0.43
1:A:134:ASP:OD1	1:A:135:VAL:N	2.51	0.43
1:A:2747:ILE:HG22	1:A:2748:PRO:O	2.19	0.43
1:A:4786:ASP:OD1	1:A:4787:ASN:N	2.51	0.43
1:C:20:VAL:HG12	1:C:204:PRO:HA	2.00	0.43
1:C:110:ARG:NH2	1:C:115:ARG:HD2	2.29	0.43
1:C:842:PRO:HD2	1:C:1196:PRO:HA	2.00	0.43
1:C:4088:ILE:O	1:C:4123:ILE:N	2.51	0.43
1:C:4235:VAL:HG21	1:C:5019:TRP:CZ3	2.53	0.43
2:D:87:HIS:HD2	2:D:88:PRO:HD2	1.84	0.43
2:D:88:PRO:O	2:D:90:ILE:HD12	2.18	0.43
1:E:1629:GLN:HE21	1:E:1631:GLN:HE21	1.66	0.43
1:E:1839:VAL:HB	1:E:1840:PRO:HD3	2.00	0.43
1:E:1943:LEU:HD11	1:E:2098:VAL:HG22	1.99	0.43
1:E:2551:ASN:HA	1:E:2554:LEU:HG	2.01	0.43
1:E:4840:THR:OG1	1:G:4826:ILE:HD13	2.19	0.43
1:G:20:VAL:HG12	1:G:204:PRO:HA	2.00	0.43
1:G:100:THR:HG21	1:G:162:LYS:NZ	2.33	0.43
1:G:176:SER:HB2	1:G:178:ARG:NH2	2.32	0.43
1:G:262:LEU:HD23	1:G:282:ILE:HG12	1.99	0.43
1:G:1100:MET:HE2	1:G:1198:GLN:HB3	2.00	0.43
1:G:1189:LEU:HA	1:G:1190:PRO:HD3	1.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1710:GLY:O	1:G:1714:LEU:HG	2.18	0.43
1:G:2134:LEU:O	1:G:2138:LEU:HG	2.18	0.43
1:G:2163:ARG:O	1:G:2166:LEU:HB3	2.19	0.43
1:G:2380:ILE:HG23	1:G:2423:MET:SD	2.58	0.43
1:G:4682:GLU:OE2	1:G:4723:LYS:HD2	2.18	0.43
1:A:262:LEU:HD23	1:A:282:ILE:HG12	1.99	0.43
1:A:308:HIS:CE1	1:A:311:ALA:HB2	2.54	0.43
1:A:892:THR:O	1:A:903:LEU:HA	2.19	0.43
1:A:1695:LEU:O	1:A:1699:GLU:HG3	2.19	0.43
1:A:3924:LEU:O	1:A:3927:GLN:HB3	2.19	0.43
1:C:21:VAL:HG13	1:C:205:ILE:HD11	2.01	0.43
1:C:293:LEU:HD13	1:C:378:LEU:HD12	2.00	0.43
1:C:637:LEU:O	1:C:638:ILE:HD13	2.19	0.43
1:C:1101:ARG:CG	1:C:1193:SER:HB3	2.47	0.43
1:C:2747:ILE:HG22	1:C:2748:PRO:O	2.18	0.43
1:C:2816:MET:HG2	1:C:2878:LEU:HD21	1.99	0.43
1:C:3886:ARG:O	1:C:3890:LEU:HD13	2.17	0.43
1:C:3895:HIS:HE1	1:C:3970:GLN:HG3	1.83	0.43
1:C:4814:LEU:HD23	1:C:4814:LEU:HA	1.91	0.43
1:E:1739:THR:O	1:E:1742:THR:OG1	2.31	0.43
1:E:4239:GLU:OE1	1:E:4675:LYS:HD2	2.19	0.43
1:E:4849:TYR:HA	1:E:4852:THR:HG22	2.01	0.43
1:G:892:THR:O	1:G:903:LEU:HA	2.18	0.43
1:G:1022:VAL:HG23	1:G:1027:LEU:HB3	2.00	0.43
1:G:1586:ASN:O	1:G:1588:ALA:N	2.47	0.43
1:G:1715:LEU:HD13	1:G:1844:LEU:HD11	2.01	0.43
1:G:1958:LEU:HD22	1:G:2134:LEU:HD11	2.01	0.43
1:G:4705:VAL:HB	1:G:4778:TRP:CD2	2.54	0.43
1:A:21:VAL:HG13	1:A:205:ILE:HD11	2.01	0.43
1:A:889:GLN:HB3	1:A:891:TRP:HD1	1.84	0.43
1:A:3985:LEU:HA	1:A:3988:ALA:HB3	2.01	0.43
1:A:4856:PHE:CE2	1:C:4807:PHE:CZ	3.07	0.43
2:B:88:PRO:O	2:B:90:ILE:HD12	2.18	0.43
1:C:664:PHE:HE2	1:C:686:TRP:CZ2	2.36	0.43
1:C:889:GLN:HB3	1:C:891:TRP:HD1	1.84	0.43
1:C:2336:ARG:HD2	1:C:2435:ARG:NH1	2.33	0.43
1:C:3955:MET:HE3	1:C:4016:LEU:HD12	2.01	0.43
1:C:4642:ALA:HA	1:C:4645:CYS:SG	2.58	0.43
1:E:214:VAL:HG22	1:E:341:TYR:CZ	2.54	0.43
1:E:889:GLN:HB3	1:E:891:TRP:HD1	1.84	0.43
1:E:1022:VAL:HG23	1:E:1027:LEU:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3891:LEU:HB3	1:E:3899:PHE:HE2	1.82	0.43
1:E:4235:VAL:HG21	1:E:5019:TRP:CZ3	2.54	0.43
1:G:959:TYR:HE2	1:G:966:LYS:HB2	1.83	0.43
1:G:1018:ASN:HB3	1:G:1021:LEU:HG	2.01	0.43
1:G:2711:PRO:HA	1:G:3016:TYR:HA	2.00	0.43
1:G:2774:ASN:OD1	1:G:2852:ARG:NE	2.52	0.43
1:G:4242:ILE:HG12	1:G:4993:MET:HE2	2.01	0.43
1:A:20:VAL:HG12	1:A:204:PRO:HA	2.00	0.43
1:A:214:VAL:HG22	1:A:341:TYR:CZ	2.54	0.43
1:A:673:PRO:O	1:A:679:ALA:HA	2.18	0.43
1:A:1124:PHE:HB2	1:A:1162:PHE:CE2	2.54	0.43
1:A:2063:LEU:O	1:A:2066:LEU:HB3	2.19	0.43
1:A:2163:ARG:O	1:A:2166:LEU:HB3	2.19	0.43
1:A:4235:VAL:HG21	1:A:5019:TRP:CZ3	2.53	0.43
1:C:252:VAL:HA	1:C:255:HIS:CE1	2.54	0.43
1:C:1076:ARG:HH22	1:C:1609:PRO:CB	2.32	0.43
1:C:1695:LEU:O	1:C:1699:GLU:HG3	2.19	0.43
1:C:1812:LEU:HD21	1:C:1861:GLN:HG2	2.01	0.43
1:C:1943:LEU:HD11	1:C:2098:VAL:HG22	1.99	0.43
1:E:222:LEU:HB3	1:E:388:LEU:HD13	2.00	0.43
1:E:252:VAL:HA	1:E:255:HIS:CE1	2.54	0.43
1:E:308:HIS:CE1	1:E:311:ALA:HB2	2.54	0.43
1:E:602:VAL:O	1:E:605:SER:OG	2.22	0.43
1:E:2063:LEU:O	1:E:2066:LEU:HB3	2.19	0.43
1:E:2211:MET:HE1	1:E:2272:PRO:HB3	2.01	0.43
1:E:3937:TYR:HA	1:E:3940:LYS:HZ1	1.84	0.43
1:E:4638:TYR:O	1:E:4641:PRO:HD2	2.18	0.43
2:F:82:TYR:CE1	2:F:87:HIS:HB2	2.54	0.43
1:G:134:ASP:OD1	1:G:135:VAL:N	2.51	0.43
1:G:180:LEU:O	1:G:200:TRP:NE1	2.51	0.43
1:G:217:GLY:O	1:G:261:ARG:NH1	2.52	0.43
1:G:1739:THR:O	1:G:1742:THR:OG1	2.31	0.43
1:G:1780:PRO:HD3	1:G:1801:ALA:H	1.84	0.43
1:G:1958:LEU:HD23	1:G:2138:LEU:HD21	2.01	0.43
1:G:2244:ARG:O	1:G:2247:GLN:HB3	2.18	0.43
1:G:4806:ASN:O	1:G:4809:PHE:HB3	2.18	0.43
2:H:55:VAL:HG21	2:H:59:TRP:HD1	1.84	0.43
1:A:2770:LYS:HG3	1:A:2791:LEU:HD21	2.01	0.43
1:A:4888:TYR:O	1:A:4892:ARG:HD3	2.19	0.43
1:C:1715:LEU:HD13	1:C:1844:LEU:HD11	2.01	0.43
1:C:3971:GLY:O	1:C:3973:CYS:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4856:PHE:CE2	1:E:4807:PHE:CZ	3.06	0.43
1:E:20:VAL:HG12	1:E:204:PRO:HA	2.00	0.43
1:E:217:GLY:O	1:E:261:ARG:NH1	2.52	0.43
1:E:495:ASN:HB3	1:E:553:ARG:NH2	2.23	0.43
1:E:664:PHE:HE2	1:E:686:TRP:CZ2	2.36	0.43
1:E:1089:TYR:HE2	1:E:1214:PHE:HD1	1.67	0.43
1:E:1715:LEU:HD13	1:E:1844:LEU:HD11	2.01	0.43
1:E:3955:MET:HE3	1:E:4016:LEU:HD12	2.01	0.43
2:F:88:PRO:O	2:F:90:ILE:HD12	2.18	0.43
1:G:21:VAL:HG13	1:G:205:ILE:HD11	2.01	0.43
1:G:203:ASN:HA	1:G:204:PRO:HD3	1.89	0.43
1:G:393:CYS:SG	1:G:397:GLU:HB2	2.59	0.43
1:G:664:PHE:HE2	1:G:686:TRP:CZ2	2.36	0.43
1:G:821:LEU:HD23	1:G:1626:TRP:CZ2	2.54	0.43
1:G:1839:VAL:HB	1:G:1840:PRO:HD3	2.00	0.43
1:G:4145:VAL:O	1:G:4149:ASN:N	2.49	0.43
1:A:181:HIS:CD2	1:A:196:MET:HB2	2.54	0.42
1:A:614:VAL:HG13	1:A:617:ASN:HB3	2.01	0.42
1:A:771:PHE:CE1	1:A:1472:VAL:HG13	2.54	0.42
1:A:2427:ALA:CB	1:A:2498:HIS:HD1	2.31	0.42
1:A:4239:GLU:OE1	1:A:4675:LYS:HD2	2.19	0.42
1:A:4667:PRO:HA	1:A:4670:ILE:HG22	2.02	0.42
2:B:78:PRO:O	2:B:83:GLY:N	2.51	0.42
1:C:222:LEU:HB3	1:C:388:LEU:HD13	2.00	0.42
1:C:821:LEU:HD23	1:C:1626:TRP:CZ2	2.54	0.42
1:C:2340:PHE:CD1	1:C:2435:ARG:HD2	2.53	0.42
1:C:3981:ALA:O	1:C:3986:TRP:NE1	2.46	0.42
1:C:5026:ASP:O	1:C:5027:CYS:SG	2.76	0.42
1:E:181:HIS:CD2	1:E:196:MET:HB2	2.54	0.42
1:E:637:LEU:O	1:E:638:ILE:HD13	2.19	0.42
1:E:1124:PHE:HB2	1:E:1162:PHE:CE2	2.54	0.42
1:E:1773:PRO:HA	1:E:1774:PRO:HD3	1.90	0.42
1:E:1833:SER:HB3	1:E:1836:PHE:HD2	1.84	0.42
1:E:2163:ARG:O	1:E:2166:LEU:HB3	2.19	0.42
1:G:43:GLY:HA2	1:G:444:SER:HA	2.01	0.42
1:G:637:LEU:O	1:G:638:ILE:HD13	2.19	0.42
1:G:765:GLN:HE21	1:G:1479:GLU:H	1.67	0.42
1:G:1101:ARG:CG	1:G:1193:SER:HB3	2.48	0.42
1:G:2336:ARG:HD2	1:G:2435:ARG:CZ	2.49	0.42
1:G:2340:PHE:CD1	1:G:2435:ARG:HD2	2.54	0.42
1:G:2747:ILE:HG22	1:G:2748:PRO:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1652:GLU:O	1:A:1655:GLU:HG2	2.19	0.42
1:A:2134:LEU:O	1:A:2138:LEU:HG	2.18	0.42
1:A:2741:GLU:HB3	1:A:2744:ASN:HD22	1.84	0.42
1:A:4974:GLY:O	1:A:4977:THR:OG1	2.26	0.42
1:C:59:PRO:HB3	1:C:281:ARG:CZ	2.49	0.42
1:C:468:LEU:O	1:C:472:ARG:HG2	2.18	0.42
1:C:771:PHE:CE1	1:C:1472:VAL:HG13	2.54	0.42
1:C:1103:GLY:HA3	1:C:1123:VAL:HA	2.00	0.42
1:C:1124:PHE:HB2	1:C:1162:PHE:CE2	2.54	0.42
1:C:1611:HIS:HB2	1:C:1652:GLU:CB	2.46	0.42
1:C:2244:ARG:O	1:C:2247:GLN:HB3	2.18	0.42
1:E:43:GLY:HA2	1:E:444:SER:HA	2.01	0.42
1:E:771:PHE:CE1	1:E:1472:VAL:HG13	2.54	0.42
1:E:1279:SER:HB3	1:E:1558:HIS:HA	2.02	0.42
1:E:1586:ASN:O	1:E:1588:ALA:N	2.48	0.42
1:E:1652:GLU:O	1:E:1655:GLU:HG2	2.19	0.42
1:E:1958:LEU:HD23	1:E:2138:LEU:HD21	2.01	0.42
1:E:3924:LEU:O	1:E:3927:GLN:HB3	2.19	0.42
1:G:154:SER:HB3	1:G:156:GLN:OE1	2.19	0.42
1:G:468:LEU:O	1:G:472:ARG:HG2	2.19	0.42
1:G:580:GLU:HA	1:G:620:LEU:HD21	2.01	0.42
1:G:1623:ARG:HH11	1:G:1626:TRP:CD1	2.37	0.42
1:A:252:VAL:HA	1:A:255:HIS:CE1	2.54	0.42
1:A:1160:ILE:O	1:A:1178:ALA:N	2.53	0.42
1:A:1189:LEU:HA	1:A:1190:PRO:HD3	1.87	0.42
1:A:1198:GLN:OE1	1:A:1198:GLN:N	2.50	0.42
1:A:1649:ASP:OD1	1:A:1649:ASP:N	2.53	0.42
1:A:1958:LEU:HD23	1:A:2138:LEU:HD21	2.02	0.42
1:A:2761:TYR:CE2	1:A:2862:LEU:HD22	2.53	0.42
1:A:2774:ASN:OD1	1:A:2852:ARG:NE	2.52	0.42
1:A:2788:HIS:CG	1:A:2789:PRO:HD2	2.54	0.42
1:A:4027:LEU:C	1:A:4027:LEU:HD12	2.44	0.42
1:C:685:GLY:HA3	1:C:712:TYR:O	2.20	0.42
1:C:765:GLN:HE21	1:C:1479:GLU:H	1.66	0.42
1:C:868:GLU:O	1:C:871:ARG:HB2	2.20	0.42
1:C:1290:ARG:HH21	1:C:1549:PHE:HE2	1.66	0.42
1:C:2788:HIS:CG	1:C:2789:PRO:HD2	2.54	0.42
2:D:7:ILE:HD11	2:D:73:LYS:HB2	2.00	0.42
1:E:176:SER:HB2	1:E:178:ARG:NH2	2.32	0.42
1:E:586:ILE:O	1:E:589:LEU:HB3	2.19	0.42
1:E:852:VAL:HG22	1:E:853:PRO:HD2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1231:GLN:OE1	1:E:1821:ASP:HB2	2.20	0.42
1:E:1586:ASN:N	1:E:1587:PRO:HD2	2.35	0.42
1:E:1695:LEU:O	1:E:1699:GLU:HG3	2.19	0.42
1:E:4667:PRO:HA	1:E:4670:ILE:HG22	2.01	0.42
1:G:58:VAL:HG22	1:G:305:CYS:HA	2.01	0.42
1:G:214:VAL:HG22	1:G:341:TYR:CZ	2.54	0.42
1:G:2182:ILE:O	1:G:2186:MET:HG2	2.20	0.42
1:G:4965:SER:HA	1:G:4975:PHE:CD1	2.54	0.42
1:A:821:LEU:HD23	1:A:1626:TRP:CZ2	2.54	0.42
1:A:868:GLU:O	1:A:871:ARG:HB2	2.19	0.42
1:A:1101:ARG:CG	1:A:1193:SER:HB3	2.48	0.42
1:A:1710:GLY:O	1:A:1714:LEU:HG	2.19	0.42
1:A:1747:LEU:HB2	1:A:1957:SER:OG	2.19	0.42
1:A:2145:SER:HB3	1:A:3647:HIS:CD2	2.54	0.42
1:A:2767:ALA:HB3	1:A:2857:PRO:HG3	2.01	0.42
1:A:3657:TYR:O	1:A:3662:ILE:HG12	2.18	0.42
1:C:180:LEU:O	1:C:200:TRP:NE1	2.51	0.42
1:C:1279:SER:HB3	1:C:1558:HIS:HA	2.02	0.42
1:C:4667:PRO:HA	1:C:4670:ILE:HG22	2.01	0.42
2:D:78:PRO:O	2:D:83:GLY:N	2.52	0.42
1:E:393:CYS:SG	1:E:397:GLU:HB2	2.60	0.42
1:E:2182:ILE:O	1:E:2186:MET:HG2	2.20	0.42
1:E:2761:TYR:CE2	1:E:2862:LEU:HD22	2.54	0.42
1:E:3895:HIS:HE1	1:E:3970:GLN:HG3	1.83	0.42
1:G:23:GLN:NE2	1:G:34:LYS:HB3	2.32	0.42
1:G:59:PRO:HB3	1:G:281:ARG:CZ	2.50	0.42
1:G:495:ASN:HB3	1:G:553:ARG:NH2	2.23	0.42
1:G:586:ILE:O	1:G:589:LEU:HB3	2.20	0.42
1:G:638:ILE:HG23	1:G:678:GLN:HE22	1.84	0.42
1:G:889:GLN:HB3	1:G:891:TRP:HD1	1.85	0.42
1:G:3958:ALA:HA	1:G:3961:VAL:HG12	2.02	0.42
1:G:4090:LYS:N	1:G:4121:GLU:O	2.53	0.42
1:A:43:GLY:HA2	1:A:444:SER:HA	2.01	0.42
1:A:685:GLY:HA3	1:A:712:TYR:O	2.19	0.42
1:A:1022:VAL:HG23	1:A:1027:LEU:HB3	2.00	0.42
1:A:1673:VAL:HG11	1:A:1681:VAL:HG11	2.02	0.42
1:A:4809:PHE:O	1:A:4812:HIS:ND1	2.48	0.42
2:B:56:ILE:HB	2:B:80:TYR:O	2.19	0.42
1:C:1254:HIS:HD2	1:C:1280:GLN:HB2	1.83	0.42
1:C:1610:ASN:HA	1:C:1652:GLU:OE2	2.18	0.42
1:C:2182:ILE:O	1:C:2186:MET:HG2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:184:THR:HA	1:E:189:LEU:HD23	2.01	0.42
1:E:685:GLY:HA3	1:E:712:TYR:O	2.19	0.42
1:E:714:TYR:CB	1:E:757:PHE:HD2	2.28	0.42
1:E:1673:VAL:HG11	1:E:1681:VAL:HG11	2.01	0.42
1:E:1704:PRO:HG2	1:E:1707:LEU:HD12	1.99	0.42
1:E:1710:GLY:O	1:E:1714:LEU:HG	2.19	0.42
1:E:1747:LEU:HB2	1:E:1957:SER:OG	2.19	0.42
1:E:2741:GLU:HB3	1:E:2744:ASN:HD22	1.84	0.42
1:E:3727:ASP:O	1:E:3731:LYS:NZ	2.42	0.42
1:E:4963:ILE:HD12	1:E:5030:LYS:HZ1	1.83	0.42
1:G:695:TYR:O	1:G:697:GLY:N	2.42	0.42
1:G:1747:LEU:HB2	1:G:1957:SER:OG	2.19	0.42
1:G:2063:LEU:O	1:G:2066:LEU:HB3	2.18	0.42
1:G:2142:TYR:CE2	1:G:2197:LEU:HB2	2.54	0.42
1:G:3694:LYS:HA	1:G:3695:PRO:HD3	1.80	0.42
1:G:4028:LEU:HD23	1:G:4146:LEU:HD12	2.02	0.42
1:G:4786:ASP:OD1	1:G:4787:ASN:N	2.52	0.42
1:A:2867:LEU:HG	1:A:2928:LYS:HZ3	1.84	0.42
1:A:3955:MET:HE3	1:A:4016:LEU:HD12	2.02	0.42
1:A:3958:ALA:CB	1:A:4019:LEU:HD11	2.47	0.42
1:A:4829:SER:HA	1:A:4832:HIS:CD2	2.54	0.42
1:A:4934:GLY:HA2	1:A:4937:ILE:HD12	2.02	0.42
1:A:5022:PHE:HA	1:A:5023:PRO:HD3	1.72	0.42
2:B:82:TYR:CE1	2:B:87:HIS:HB2	2.55	0.42
1:C:580:GLU:HA	1:C:620:LEU:HD21	2.02	0.42
1:C:2063:LEU:O	1:C:2066:LEU:HB3	2.19	0.42
1:C:2145:SER:HB3	1:C:3647:HIS:CD2	2.54	0.42
1:C:2770:LYS:HG3	1:C:2791:LEU:HD21	2.01	0.42
1:C:3713:LYS:O	1:C:3715:LYS:N	2.53	0.42
1:C:3985:LEU:HA	1:C:3988:ALA:HB3	2.02	0.42
1:C:4576:ILE:HG22	1:C:4643:LEU:HD12	2.02	0.42
1:E:588:SER:HB3	1:E:592:LYS:NZ	2.35	0.42
1:E:614:VAL:HG13	1:E:617:ASN:HB3	2.01	0.42
1:E:3775:ALA:O	1:E:3778:MET:HG2	2.20	0.42
1:E:4576:ILE:HG22	1:E:4643:LEU:HD12	2.01	0.42
1:E:5026:ASP:O	1:E:5027:CYS:SG	2.75	0.42
1:G:118:LEU:HD12	1:G:136:GLY:O	2.20	0.42
1:G:1695:LEU:O	1:G:1699:GLU:HG3	2.19	0.42
1:G:2121:PHE:O	1:G:3725:TYR:OH	2.27	0.42
1:G:2747:ILE:HD11	1:G:2814:LYS:HG3	2.02	0.42
1:G:2770:LYS:HB3	1:G:2775:TRP:CB	2.43	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:548:VAL:HG21	1:A:582:HIS:HB3	2.02	0.42
1:A:1279:SER:HB3	1:A:1558:HIS:HA	2.02	0.42
1:A:1715:LEU:HD13	1:A:1844:LEU:HD11	2.01	0.42
1:C:393:CYS:SG	1:C:397:GLU:HB2	2.60	0.42
1:C:548:VAL:HG21	1:C:582:HIS:HB3	2.02	0.42
1:C:1530:THR:HG22	1:C:1535:GLU:HA	2.01	0.42
1:C:1839:VAL:HB	1:C:1840:PRO:HD3	2.01	0.42
1:C:2761:TYR:CE2	1:C:2862:LEU:HD22	2.54	0.42
1:C:4963:ILE:HD12	1:C:4963:ILE:HG23	1.86	0.42
1:E:495:ASN:HB2	1:E:550:LYS:HZ3	1.84	0.42
1:E:821:LEU:HD23	1:E:1626:TRP:CZ2	2.54	0.42
1:E:1530:THR:HG22	1:E:1535:GLU:HA	2.02	0.42
1:E:1564:PHE:HB3	1:E:1565:GLU:H	1.70	0.42
1:E:2788:HIS:CG	1:E:2789:PRO:HD2	2.54	0.42
1:G:495:ASN:HB2	1:G:550:LYS:HZ3	1.85	0.42
1:G:639:ASN:OD1	1:G:640:TYR:N	2.53	0.42
1:G:1652:GLU:O	1:G:1655:GLU:HG2	2.20	0.42
1:G:2121:PHE:CD1	1:G:3701:LEU:HD12	2.55	0.42
1:G:2161:GLN:NE2	1:G:2177:LEU:HB3	2.35	0.42
1:G:3825:GLU:O	1:G:3826:VAL:HG12	2.20	0.42
1:G:4054:ASN:OD1	1:G:4055:VAL:N	2.53	0.42
1:G:4217:PHE:CZ	1:G:4234:PHE:HA	2.55	0.42
1:G:4898:GLY:HA2	1:G:4901:ILE:HG22	2.02	0.42
1:A:410:LEU:HD21	1:A:441:VAL:HG22	2.02	0.42
1:A:580:GLU:HA	1:A:620:LEU:HD21	2.02	0.42
1:A:586:ILE:O	1:A:589:LEU:HB3	2.19	0.42
1:A:2272:PRO:O	1:A:2275:VAL:HB	2.20	0.42
1:A:3919:THR:HG21	1:A:3968:TYR:CE2	2.49	0.42
1:A:3971:GLY:O	1:A:3973:CYS:N	2.51	0.42
1:C:221:ARG:N	1:C:391:THR:O	2.44	0.42
1:C:588:SER:HB3	1:C:592:LYS:NZ	2.35	0.42
1:C:633:LEU:HD22	1:C:1641:ILE:HG22	2.02	0.42
1:C:1089:TYR:CE2	1:C:1214:PHE:HD1	2.38	0.42
1:C:3924:LEU:O	1:C:3927:GLN:HB3	2.19	0.42
1:C:4573:ILE:HG21	1:C:4809:PHE:CE2	2.54	0.42
1:E:118:LEU:HD12	1:E:136:GLY:O	2.20	0.42
1:E:240:ASP:CG	1:E:244:LEU:HD12	2.45	0.42
1:E:410:LEU:HD21	1:E:441:VAL:HG22	2.02	0.42
1:E:580:GLU:HA	1:E:620:LEU:HD21	2.02	0.42
1:E:765:GLN:HE21	1:E:1479:GLU:H	1.66	0.42
1:E:2145:SER:HB3	1:E:3647:HIS:CD2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2203:MET:O	1:E:2207:VAL:HG23	2.20	0.42
2:F:56:ILE:HB	2:F:80:TYR:O	2.19	0.42
1:G:1279:SER:HB3	1:G:1558:HIS:HA	2.02	0.42
1:G:2770:LYS:HG3	1:G:2791:LEU:HD21	2.01	0.42
1:G:3775:ALA:O	1:G:3778:MET:HG2	2.19	0.42
1:G:4922:PHE:HA	1:G:4926:VAL:HB	2.01	0.42
1:A:738:LEU:HA	1:A:742:ASP:OD2	2.20	0.42
1:A:4088:ILE:O	1:A:4123:ILE:N	2.51	0.42
1:A:4886:HIS:CE1	1:A:4897:ILE:HD12	2.55	0.42
1:A:4930:ALA:HB1	1:C:4933:GLN:HA	2.02	0.42
1:C:43:GLY:HA2	1:C:444:SER:HA	2.00	0.42
1:C:118:LEU:HD12	1:C:136:GLY:O	2.20	0.42
1:C:154:SER:HB3	1:C:156:GLN:OE1	2.19	0.42
1:C:214:VAL:HG22	1:C:341:TYR:CZ	2.54	0.42
1:C:410:LEU:HD21	1:C:441:VAL:HG22	2.02	0.42
1:C:646:PRO:O	1:C:648:ILE:N	2.41	0.42
1:C:1747:LEU:HB2	1:C:1957:SER:OG	2.19	0.42
1:C:2203:MET:O	1:C:2207:VAL:HG23	2.20	0.42
1:C:2882:TYR:HD2	1:C:2919:ASP:HB3	1.85	0.42
1:C:3694:LYS:HA	1:C:3695:PRO:HD3	1.79	0.42
1:C:3835:LEU:O	1:C:3838:THR:OG1	2.33	0.42
1:E:471:LEU:HA	1:E:474:ARG:HE	1.85	0.42
1:E:1160:ILE:O	1:E:1178:ALA:N	2.53	0.42
1:E:2770:LYS:HG3	1:E:2791:LEU:HD21	2.01	0.42
1:G:252:VAL:HA	1:G:255:HIS:CE1	2.54	0.42
1:G:548:VAL:HG21	1:G:582:HIS:HB3	2.01	0.42
1:G:771:PHE:CE1	1:G:1472:VAL:HG13	2.54	0.42
1:G:2561:LEU:HD11	1:G:2601:ASP:HA	2.02	0.42
1:G:4652:LEU:O	1:G:4656:LEU:N	2.51	0.42
1:A:154:SER:HB3	1:A:156:GLN:OE1	2.19	0.42
1:A:1018:ASN:HB3	1:A:1021:LEU:HG	2.01	0.42
1:A:1655:GLU:HG3	1:A:1656:ARG:HG3	2.02	0.42
1:A:3713:LYS:O	1:A:3715:LYS:N	2.53	0.42
1:C:76:ARG:NH1	1:C:79:GLN:OE1	2.53	0.42
1:C:181:HIS:CD2	1:C:196:MET:HB2	2.55	0.42
1:C:3806:ASN:H	1:C:3890:LEU:HD23	1.85	0.42
1:E:868:GLU:O	1:E:871:ARG:HB2	2.20	0.42
1:E:2272:PRO:O	1:E:2275:VAL:HB	2.20	0.42
1:E:4020:GLN:O	1:E:4024:VAL:HG22	2.20	0.42
1:G:685:GLY:HA3	1:G:712:TYR:O	2.19	0.42
1:A:3806:ASN:H	1:A:3890:LEU:HD23	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:54:GLU:HG3	2:B:55:VAL:HG13	2.02	0.41
1:C:184:THR:HA	1:C:189:LEU:HD23	2.01	0.41
1:C:586:ILE:O	1:C:589:LEU:HB3	2.20	0.41
1:C:662:TRP:CZ3	1:C:814:ALA:HB2	2.56	0.41
1:C:2161:GLN:NE2	1:C:2177:LEU:HB3	2.35	0.41
1:C:2741:GLU:HB3	1:C:2744:ASN:HD22	1.84	0.41
1:C:4047:MET:O	1:C:4051:SER:N	2.51	0.41
1:E:1101:ARG:CG	1:E:1193:SER:HB3	2.48	0.41
1:E:2774:ASN:OD1	1:E:2852:ARG:NE	2.52	0.41
1:E:3713:LYS:O	1:E:3715:LYS:N	2.53	0.41
1:G:686:TRP:HD1	1:G:757:PHE:HZ	1.68	0.41
1:G:1290:ARG:HH21	1:G:1549:PHE:HE2	1.67	0.41
1:G:1673:VAL:HG11	1:G:1681:VAL:HG11	2.02	0.41
1:G:2131:LEU:HD21	1:G:3662:ILE:O	2.20	0.41
1:G:2788:HIS:CG	1:G:2789:PRO:HD2	2.54	0.41
1:G:3780:LEU:HD21	1:G:3820:LEU:HG	2.01	0.41
1:G:4677:LEU:HD11	1:G:4702:ASP:HB3	2.01	0.41
1:G:4913:ARG:O	1:G:4916:PHE:HB3	2.20	0.41
1:A:637:LEU:O	1:A:638:ILE:HD13	2.19	0.41
1:A:662:TRP:CZ3	1:A:814:ALA:HB2	2.56	0.41
1:A:1081:TYR:HD2	1:A:1234:VAL:HG13	1.85	0.41
1:A:2231:SER:HA	1:A:2234:ARG:HH11	1.85	0.41
1:A:4963:ILE:HD12	1:A:4963:ILE:HG23	1.85	0.41
1:C:471:LEU:HA	1:C:474:ARG:HE	1.85	0.41
1:C:852:VAL:HG22	1:C:853:PRO:HD2	2.01	0.41
1:C:1295:VAL:O	1:C:1547:LYS:HA	2.21	0.41
1:C:1652:GLU:O	1:C:1655:GLU:HG2	2.20	0.41
1:C:1685:LEU:HD23	1:C:1685:LEU:HA	1.92	0.41
1:C:3969:ILE:O	1:C:3969:ILE:HG22	2.20	0.41
1:C:4579:PHE:HD2	1:C:4639:MET:HE1	1.85	0.41
1:E:58:VAL:HG22	1:E:305:CYS:HA	2.02	0.41
1:E:111:HIS:CD2	1:E:113:HIS:H	2.38	0.41
1:E:168:ASP:HB3	1:E:199:LEU:HD22	2.03	0.41
1:E:633:LEU:HD22	1:E:1641:ILE:HG22	2.03	0.41
1:E:2767:ALA:HB3	1:E:2857:PRO:HG3	2.01	0.41
1:E:4573:ILE:HG21	1:E:4809:PHE:CE2	2.54	0.41
1:E:4579:PHE:HD2	1:E:4639:MET:HE1	1.85	0.41
1:G:240:ASP:CG	1:G:244:LEU:HD12	2.45	0.41
1:G:308:HIS:CE1	1:G:311:ALA:HB2	2.55	0.41
1:G:359:TYR:HA	1:G:376:ALA:HA	2.03	0.41
1:G:410:LEU:HD21	1:G:441:VAL:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1081:TYR:HD2	1:G:1234:VAL:HG13	1.84	0.41
1:G:1295:VAL:O	1:G:1547:LYS:HA	2.20	0.41
1:G:1655:GLU:HG3	1:G:1656:ARG:HG3	2.02	0.41
1:G:2133:GLU:HA	1:G:2136:ARG:HE	1.85	0.41
1:G:3727:ASP:C	1:G:3731:LYS:HZ3	2.28	0.41
1:A:221:ARG:N	1:A:391:THR:O	2.44	0.41
1:A:682:LEU:O	1:A:684:VAL:HG23	2.21	0.41
1:A:852:VAL:HG22	1:A:853:PRO:HD2	2.01	0.41
1:A:943:ASP:HB3	1:A:1050:GLY:HA3	2.02	0.41
1:A:1089:TYR:CE2	1:A:1214:PHE:HD1	2.38	0.41
1:A:1623:ARG:HH11	1:A:1626:TRP:CD1	2.38	0.41
1:A:1812:LEU:HD21	1:A:1861:GLN:HG2	2.02	0.41
1:A:3775:ALA:O	1:A:3778:MET:HG2	2.20	0.41
1:A:3835:LEU:O	1:A:3838:THR:OG1	2.32	0.41
1:C:1081:TYR:HD2	1:C:1234:VAL:HG13	1.85	0.41
1:C:1586:ASN:N	1:C:1587:PRO:HD2	2.35	0.41
1:E:59:PRO:HB3	1:E:281:ARG:CZ	2.50	0.41
1:E:2145:SER:HB3	1:E:3647:HIS:HD2	1.85	0.41
1:E:4028:LEU:HD21	1:E:4146:LEU:HA	2.03	0.41
1:G:633:LEU:HD22	1:G:1641:ILE:HG22	2.02	0.41
1:G:943:ASP:HB3	1:G:1050:GLY:HA3	2.03	0.41
1:G:1530:THR:HG22	1:G:1535:GLU:HA	2.02	0.41
1:G:1586:ASN:N	1:G:1587:PRO:HD2	2.36	0.41
1:G:2231:SER:HA	1:G:2234:ARG:HH11	1.85	0.41
1:G:2821:TRP:HH2	1:G:2877:GLN:HB3	1.85	0.41
1:A:64:ILE:O	1:A:111:HIS:HE1	2.04	0.41
1:A:217:GLY:O	1:A:261:ARG:NH1	2.53	0.41
1:A:393:CYS:SG	1:A:397:GLU:HB2	2.60	0.41
1:A:588:SER:HB3	1:A:592:LYS:NZ	2.35	0.41
1:A:3965:LEU:HA	1:A:3968:TYR:CD2	2.55	0.41
1:C:179:TYR:OH	1:E:2359:ARG:NE	2.53	0.41
1:C:257:ARG:HB3	1:C:481:GLU:OE2	2.20	0.41
1:C:359:TYR:HA	1:C:376:ALA:HA	2.03	0.41
1:C:614:VAL:HG13	1:C:617:ASN:HB3	2.01	0.41
1:C:1116:GLY:O	1:C:1132:TRP:HB3	2.20	0.41
1:C:1623:ARG:HH11	1:C:1626:TRP:CD1	2.38	0.41
1:C:1673:VAL:HG11	1:C:1681:VAL:HG11	2.02	0.41
1:C:3717:ASP:OD1	1:C:3717:ASP:N	2.51	0.41
1:C:3775:ALA:O	1:C:3778:MET:HG2	2.20	0.41
1:C:4056:GLU:OE2	1:C:4166:LEU:HD11	2.20	0.41
1:E:548:VAL:HG21	1:E:582:HIS:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2745:VAL:HG21	1:E:2818:ALA:HB2	2.03	0.41
1:E:3717:ASP:OD1	1:E:3717:ASP:N	2.51	0.41
1:E:4930:ALA:HB1	1:G:4933:GLN:HA	2.01	0.41
2:F:54:GLU:HG3	2:F:55:VAL:HG13	2.02	0.41
1:G:184:THR:HA	1:G:189:LEU:HD23	2.01	0.41
1:G:662:TRP:CZ3	1:G:814:ALA:HB2	2.55	0.41
1:G:1089:TYR:HE2	1:G:1214:PHE:HD1	1.69	0.41
1:G:1783:VAL:HG11	2:H:46:PHE:CZ	2.55	0.41
1:G:2136:ARG:NH1	1:G:3720:TYR:HE2	2.19	0.41
1:G:2210:VAL:O	1:G:2214:VAL:HG23	2.21	0.41
1:G:4878:ASP:HB3	1:G:4881:THR:OG1	2.20	0.41
1:A:471:LEU:HA	1:A:474:ARG:HE	1.85	0.41
1:A:639:ASN:OD1	1:A:640:TYR:N	2.54	0.41
1:A:1564:PHE:HB3	1:A:1565:GLU:H	1.70	0.41
1:A:2161:GLN:NE2	1:A:2177:LEU:HB3	2.35	0.41
1:A:2182:ILE:O	1:A:2186:MET:HG2	2.20	0.41
1:A:3817:LEU:HD13	1:A:3899:PHE:HD1	1.86	0.41
1:A:4026:MET:O	1:A:4029:SER:OG	2.21	0.41
1:A:5026:ASP:O	1:A:5027:CYS:SG	2.76	0.41
1:C:240:ASP:CG	1:C:244:LEU:HD12	2.45	0.41
1:C:639:ASN:OD1	1:C:640:TYR:N	2.54	0.41
1:C:1018:ASN:HB3	1:C:1021:LEU:HG	2.01	0.41
1:C:1022:VAL:HG23	1:C:1027:LEU:HB3	2.00	0.41
1:C:1089:TYR:HE2	1:C:1214:PHE:HD1	1.68	0.41
1:C:1252:HIS:C	1:C:1254:HIS:N	2.72	0.41
1:C:2145:SER:HB3	1:C:3647:HIS:HD2	1.85	0.41
1:E:359:TYR:HA	1:E:376:ALA:HA	2.02	0.41
1:E:639:ASN:OD1	1:E:640:TYR:N	2.53	0.41
1:E:1092:PHE:CD2	1:E:1102:VAL:HG21	2.56	0.41
1:E:1295:VAL:O	1:E:1547:LYS:HA	2.21	0.41
1:E:3981:ALA:O	1:E:3986:TRP:NE1	2.46	0.41
1:E:4820:VAL:O	1:E:4824:ARG:HG3	2.20	0.41
1:G:181:HIS:CD2	1:G:196:MET:HB2	2.55	0.41
1:G:588:SER:HB3	1:G:592:LYS:NZ	2.35	0.41
1:G:1116:GLY:O	1:G:1132:TRP:HB3	2.20	0.41
1:G:1160:ILE:O	1:G:1178:ALA:N	2.53	0.41
1:G:1783:VAL:O	2:H:56:ILE:N	2.54	0.41
1:G:2427:ALA:CB	1:G:2498:HIS:HD1	2.31	0.41
1:G:3972:PRO:HD3	1:G:5005:GLY:HA3	2.02	0.41
1:A:359:TYR:HA	1:A:376:ALA:HA	2.03	0.41
1:A:686:TRP:HD1	1:A:757:PHE:HZ	1.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1290:ARG:HH21	1:A:1549:PHE:HE2	1.67	0.41
1:A:1295:VAL:O	1:A:1547:LYS:HA	2.20	0.41
1:A:1586:ASN:N	1:A:1587:PRO:HD2	2.35	0.41
1:A:2882:TYR:HD2	1:A:2919:ASP:HB3	1.85	0.41
1:A:4857:ASN:HD21	1:C:4807:PHE:HD2	1.64	0.41
1:C:111:HIS:CD2	1:C:113:HIS:H	2.38	0.41
1:C:2427:ALA:CB	1:C:2498:HIS:HD1	2.30	0.41
1:C:3965:LEU:HA	1:C:3968:TYR:CD2	2.55	0.41
1:C:4020:GLN:O	1:C:4024:VAL:HG22	2.20	0.41
2:D:56:ILE:HB	2:D:80:TYR:O	2.20	0.41
1:E:1104:TRP:CD1	1:E:1153:ILE:HB	2.56	0.41
1:E:1293:LEU:HB3	1:E:1584:ARG:HG2	2.03	0.41
1:E:1685:LEU:HD23	1:E:1685:LEU:HA	1.92	0.41
1:E:2161:GLN:NE2	1:E:2177:LEU:HB3	2.35	0.41
1:E:2281:ILE:HG12	1:E:2337:PHE:CD1	2.56	0.41
1:E:2882:TYR:HD2	1:E:2919:ASP:HB3	1.85	0.41
1:E:3905:THR:O	1:E:3912:THR:OG1	2.36	0.41
1:G:685:GLY:HA3	1:G:713:SER:HA	2.02	0.41
1:G:1812:LEU:HD21	1:G:1861:GLN:HG2	2.01	0.41
1:G:2203:MET:O	1:G:2207:VAL:HG23	2.20	0.41
1:A:596:ASN:HB2	1:A:599:VAL:HG23	2.02	0.41
1:A:3969:ILE:O	1:A:3969:ILE:HG22	2.20	0.41
1:A:4020:GLN:O	1:A:4024:VAL:HG22	2.21	0.41
1:A:4695:ASP:OD1	1:A:4696:ASP:N	2.54	0.41
1:C:4090:LYS:N	1:C:4121:GLU:O	2.54	0.41
1:C:4695:ASP:OD1	1:C:4696:ASP:N	2.54	0.41
1:E:76:ARG:NE	1:G:3844:LEU:HD23	2.36	0.41
1:E:121:LEU:HD11	1:E:136:GLY:HA3	2.03	0.41
1:E:274:LEU:HD12	1:E:278:GLN:NE2	2.36	0.41
1:E:682:LEU:O	1:E:684:VAL:HG23	2.21	0.41
1:E:4927:ILE:HG22	1:E:4928:LEU:HD12	2.03	0.41
1:G:111:HIS:CD2	1:G:113:HIS:H	2.38	0.41
1:G:596:ASN:HB2	1:G:599:VAL:HG23	2.03	0.41
1:G:614:VAL:HG13	1:G:617:ASN:HB3	2.01	0.41
1:G:1076:ARG:HH22	1:G:1609:PRO:CB	2.33	0.41
1:G:1649:ASP:OD1	1:G:1649:ASP:N	2.53	0.41
1:G:4685:GLY:O	1:G:4689:THR:N	2.54	0.41
1:A:236:ALA:HA	1:A:242:ARG:NH1	2.36	0.41
1:A:257:ARG:O	1:A:284:HIS:HE1	2.03	0.41
1:A:1089:TYR:HE2	1:A:1214:PHE:HD1	1.68	0.41
1:A:3717:ASP:OD1	1:A:3717:ASP:N	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3793:MET:O	1:A:3797:THR:HG23	2.21	0.41
1:A:4090:LYS:N	1:A:4121:GLU:O	2.54	0.41
1:A:4936:ILE:HG21	1:G:4931:ILE:HG12	2.03	0.41
1:C:121:LEU:HD11	1:C:136:GLY:HA3	2.02	0.41
1:C:575:LEU:O	1:C:578:ILE:HG22	2.21	0.41
1:C:596:ASN:HB2	1:C:599:VAL:HG23	2.02	0.41
1:C:682:LEU:O	1:C:684:VAL:HG23	2.21	0.41
1:C:1655:GLU:HG3	1:C:1656:ARG:HG3	2.02	0.41
1:C:4686:LEU:HA	1:C:4690:GLU:HB2	2.03	0.41
1:C:4820:VAL:O	1:C:4824:ARG:HG3	2.21	0.41
1:C:4930:ALA:HB1	1:E:4933:GLN:HA	2.03	0.41
1:E:76:ARG:NE	1:G:3844:LEU:CD2	2.84	0.41
1:E:257:ARG:HB3	1:E:481:GLU:OE2	2.21	0.41
1:E:1736:VAL:HA	1:E:1737:PRO:HD2	1.90	0.41
1:E:2210:VAL:O	1:E:2214:VAL:HG23	2.21	0.41
1:E:3997:ALA:O	1:E:4001:MET:HG2	2.21	0.41
1:E:4047:MET:O	1:E:4051:SER:N	2.51	0.41
1:E:4056:GLU:OE2	1:E:4166:LEU:HD11	2.20	0.41
1:G:523:TYR:CD1	1:G:560:ILE:HG13	2.56	0.41
1:G:868:GLU:O	1:G:871:ARG:HB2	2.19	0.41
1:G:1124:PHE:HB2	1:G:1162:PHE:CE2	2.55	0.41
1:G:2761:TYR:CE2	1:G:2862:LEU:HD22	2.55	0.41
1:G:3843:ASP:OD2	1:G:3846:ALA:HB2	2.21	0.41
1:A:59:PRO:HB3	1:A:281:ARG:CZ	2.50	0.41
1:A:184:THR:HA	1:A:189:LEU:HD23	2.01	0.41
1:A:685:GLY:HA3	1:A:713:SER:HA	2.03	0.41
1:A:695:TYR:O	1:A:697:GLY:N	2.42	0.41
1:A:697:GLY:HA2	1:A:698:GLY:HA2	1.86	0.41
1:A:1252:HIS:C	1:A:1254:HIS:N	2.72	0.41
1:A:1530:THR:HG22	1:A:1535:GLU:HA	2.02	0.41
1:A:2203:MET:O	1:A:2207:VAL:HG23	2.20	0.41
1:A:2239:PHE:O	1:A:2242:ILE:HG12	2.20	0.41
1:A:2735:PHE:CD1	1:A:2907:PRO:HA	2.56	0.41
1:A:3969:ILE:HG23	1:A:3977:GLN:HG2	2.03	0.41
1:A:3989:VAL:CG1	1:A:4047:MET:HE1	2.51	0.41
1:A:4056:GLU:OE2	1:A:4166:LEU:HD11	2.20	0.41
1:A:4722:ARG:HA	1:A:4725:LEU:HG	2.03	0.41
1:A:4807:PHE:CD2	1:G:4857:ASN:ND2	2.87	0.41
1:C:225:GLY:HA2	1:C:389:PHE:HE2	1.86	0.41
1:C:281:ARG:HG2	1:C:312:THR:HG23	2.03	0.41
1:C:638:ILE:HG23	1:C:678:GLN:HE22	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:738:LEU:HA	1:C:742:ASP:OD2	2.21	0.41
1:C:1104:TRP:CD1	1:C:1153:ILE:HB	2.55	0.41
1:C:1252:HIS:CG	1:C:1253:PRO:HD2	2.56	0.41
1:C:1632:ASP:HA	1:C:1633:PRO:HD2	1.77	0.41
1:C:2212:VAL:HG21	1:C:2256:TYR:CE2	2.56	0.41
1:C:2231:SER:HA	1:C:2234:ARG:HH11	1.85	0.41
1:C:2272:PRO:O	1:C:2275:VAL:HB	2.21	0.41
1:C:2774:ASN:OD1	1:C:2852:ARG:NE	2.52	0.41
1:C:3969:ILE:HG23	1:C:3977:GLN:HG2	2.03	0.41
1:C:4028:LEU:HD21	1:C:4146:LEU:HA	2.03	0.41
1:C:4722:ARG:HA	1:C:4725:LEU:HG	2.03	0.41
1:C:4886:HIS:CE1	1:C:4897:ILE:HD12	2.56	0.41
2:D:6:THR:HG23	2:D:70:GLN:HE21	1.85	0.41
1:E:221:ARG:N	1:E:391:THR:O	2.44	0.41
1:E:281:ARG:HG2	1:E:312:THR:HG23	2.03	0.41
1:E:596:ASN:HB2	1:E:599:VAL:HG23	2.02	0.41
1:E:686:TRP:HD1	1:E:757:PHE:HZ	1.68	0.41
1:E:695:TYR:HA	1:E:696:PRO:HD3	1.84	0.41
1:E:1846:SER:O	1:E:1850:VAL:HG23	2.21	0.41
1:E:2231:SER:HA	1:E:2234:ARG:HH11	1.85	0.41
1:E:2561:LEU:HD11	1:E:2601:ASP:HA	2.03	0.41
1:E:3841:VAL:HG12	1:E:3843:ASP:N	2.36	0.41
1:E:4708:THR:HA	1:E:4709:PRO:HD3	1.91	0.41
1:E:4722:ARG:HA	1:E:4725:LEU:HG	2.03	0.41
1:E:4989:MET:HE2	1:E:4989:MET:HB3	1.91	0.41
1:E:5022:PHE:HA	1:E:5023:PRO:HD3	1.72	0.41
1:G:149:THR:HG23	1:G:174:VAL:HG22	2.03	0.41
1:G:225:GLY:HA2	1:G:389:PHE:HE2	1.86	0.41
1:G:236:ALA:HA	1:G:242:ARG:NH1	2.36	0.41
1:G:682:LEU:O	1:G:684:VAL:HG23	2.21	0.41
1:G:1238:PHE:CE2	1:G:1612:PHE:HA	2.55	0.41
1:G:1439:VAL:HG11	1:G:1448:VAL:HG21	2.03	0.41
1:G:2239:PHE:O	1:G:2242:ILE:HG12	2.20	0.41
1:G:3759:GLU:O	1:G:3763:LEU:N	2.48	0.41
1:G:4648:LEU:O	1:G:4652:LEU:N	2.48	0.41
1:G:4667:PRO:O	1:G:4670:ILE:HG22	2.20	0.41
2:H:87:HIS:HD2	2:H:88:PRO:HD2	1.86	0.41
1:A:523:TYR:CD1	1:A:560:ILE:HG13	2.56	0.41
1:A:1127:HIS:C	1:A:1129:GLY:H	2.29	0.41
1:A:4184:MET:HG2	1:A:4190:ILE:HG12	2.03	0.41
2:B:49:MET:N	2:B:54:GLU:OE2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:479:GLN:OE1	1:C:484:LEU:HD13	2.21	0.41
1:C:2767:ALA:HB3	1:C:2857:PRO:HG3	2.02	0.41
1:C:3666:ASP:O	1:C:3669:PHE:HD1	2.04	0.41
1:C:4037:ASN:HB3	1:C:4042:ARG:NH2	2.34	0.41
1:C:4809:PHE:HA	1:C:4812:HIS:CE1	2.56	0.41
1:E:523:TYR:CD1	1:E:560:ILE:HG13	2.56	0.41
1:E:638:ILE:HG23	1:E:678:GLN:HE22	1.86	0.41
1:E:662:TRP:CZ3	1:E:814:ALA:HB2	2.56	0.41
1:E:738:LEU:HA	1:E:742:ASP:OD2	2.20	0.41
1:E:1632:ASP:HA	1:E:1633:PRO:HD2	1.75	0.41
1:E:3965:LEU:HA	1:E:3968:TYR:CD2	2.56	0.41
1:E:3969:ILE:O	1:E:3969:ILE:HG22	2.20	0.41
1:E:4207:MET:N	1:E:4208:PRO:HD3	2.36	0.41
1:G:453:GLU:HA	1:G:454:PRO:HD3	1.91	0.41
1:G:575:LEU:O	1:G:578:ILE:HG22	2.21	0.41
1:G:2138:LEU:N	1:G:2139:PRO:HD2	2.36	0.41
1:G:2212:VAL:HG21	1:G:2256:TYR:CE2	2.56	0.41
1:G:4638:TYR:O	1:G:4641:PRO:HD2	2.21	0.41
1:A:1231:GLN:OE1	1:A:1821:ASP:HB2	2.21	0.40
1:A:1927:LEU:HD23	1:A:2101:MET:HE3	2.03	0.40
1:A:2210:VAL:O	1:A:2214:VAL:HG23	2.21	0.40
1:A:3969:ILE:HG21	1:A:4030:LEU:HA	2.03	0.40
1:A:4820:VAL:O	1:A:4824:ARG:HG3	2.21	0.40
1:A:4913:ARG:O	1:A:4916:PHE:HB3	2.22	0.40
1:A:4927:ILE:HG22	1:A:4928:LEU:HD12	2.01	0.40
1:C:283:ARG:HB2	1:C:290:TYR:CE2	2.57	0.40
1:C:1293:LEU:HB3	1:C:1584:ARG:HG2	2.04	0.40
1:C:1600:LEU:C	1:C:1602:PRO:HD3	2.46	0.40
1:C:3780:LEU:HD21	1:C:3820:LEU:HG	2.04	0.40
1:C:4927:ILE:HG22	1:C:4928:LEU:HD12	2.03	0.40
1:E:1290:ARG:HH21	1:E:1549:PHE:HE2	1.68	0.40
1:E:1780:PRO:HD3	1:E:1801:ALA:H	1.86	0.40
1:E:2212:VAL:HG21	1:E:2256:TYR:CE2	2.56	0.40
1:E:3943:ILE:HB	1:E:4009:GLN:NE2	2.36	0.40
1:E:4711:PHE:HB3	1:E:4712:PRO:HD3	2.03	0.40
1:G:257:ARG:HB3	1:G:481:GLU:OE2	2.21	0.40
1:G:1103:GLY:HA3	1:G:1123:VAL:HA	2.04	0.40
1:G:2272:PRO:O	1:G:2275:VAL:HB	2.21	0.40
1:G:2288:LEU:O	1:G:3849:ARG:HD3	2.21	0.40
1:G:4023:MET:O	1:G:4026:MET:HB3	2.21	0.40
1:A:111:HIS:CD2	1:A:113:HIS:H	2.38	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:240:ASP:CG	1:A:244:LEU:HD12	2.45	0.40
1:A:274:LEU:HD12	1:A:278:GLN:NE2	2.36	0.40
1:A:575:LEU:O	1:A:578:ILE:HG22	2.21	0.40
1:A:1252:HIS:CG	1:A:1253:PRO:HD2	2.56	0.40
1:A:2062:ARG:O	1:A:2065:SER:OG	2.33	0.40
1:A:2103:VAL:HG21	1:A:3676:ASP:OD2	2.21	0.40
1:A:2145:SER:HB3	1:A:3647:HIS:HD2	1.85	0.40
1:A:2745:VAL:HG21	1:A:2818:ALA:HB2	2.02	0.40
1:A:2747:ILE:HG12	1:A:2817:ILE:HD12	2.03	0.40
1:A:3878:ASP:OD1	1:A:3879:GLU:N	2.55	0.40
1:A:4047:MET:O	1:A:4051:SER:N	2.51	0.40
1:A:4551:PHE:O	1:A:4555:LEU:HB2	2.21	0.40
1:A:4686:LEU:HA	1:A:4690:GLU:HB2	2.03	0.40
1:A:4823:LEU:HA	1:A:4826:ILE:HD12	2.03	0.40
1:C:64:ILE:O	1:C:111:HIS:HE1	2.04	0.40
1:C:1238:PHE:CE2	1:C:1612:PHE:HA	2.55	0.40
1:C:1780:PRO:HD3	1:C:1801:ALA:H	1.86	0.40
1:C:1927:LEU:HD23	1:C:2101:MET:HE3	2.03	0.40
1:C:2561:LEU:HD11	1:C:2601:ASP:HA	2.03	0.40
1:C:2747:ILE:HG12	1:C:2817:ILE:HD12	2.03	0.40
1:C:4551:PHE:O	1:C:4555:LEU:HB2	2.21	0.40
1:C:4878:ASP:HB3	1:C:4881:THR:OG1	2.21	0.40
1:E:545:ASP:HA	1:E:582:HIS:CE1	2.56	0.40
1:E:1127:HIS:C	1:E:1129:GLY:H	2.29	0.40
1:E:1439:VAL:HG11	1:E:1448:VAL:HG21	2.03	0.40
1:E:1600:LEU:C	1:E:1602:PRO:HD3	2.46	0.40
1:E:1716:ILE:C	1:E:1721:GLU:HB2	2.46	0.40
1:E:1927:LEU:HD23	1:E:2101:MET:HE3	2.03	0.40
1:E:2211:MET:HG3	1:E:2229:VAL:HG13	2.03	0.40
1:E:4886:HIS:CE1	1:E:4897:ILE:HD12	2.56	0.40
1:E:4888:TYR:O	1:E:4892:ARG:HD3	2.21	0.40
1:G:471:LEU:HA	1:G:474:ARG:HE	1.85	0.40
1:G:852:VAL:HG22	1:G:853:PRO:HD2	2.02	0.40
1:G:2142:TYR:HD2	1:G:2197:LEU:HD12	1.86	0.40
1:G:3831:SER:O	1:G:3835:LEU:HG	2.21	0.40
1:G:3919:THR:HG21	1:G:3968:TYR:CE2	2.54	0.40
1:A:23:GLN:NE2	1:A:34:LYS:HB3	2.32	0.40
1:A:1293:LEU:HB3	1:A:1584:ARG:HG2	2.03	0.40
1:A:1600:LEU:C	1:A:1602:PRO:HD3	2.46	0.40
1:A:1778:SER:HA	1:A:1779:PRO:HD3	1.89	0.40
1:A:2821:TRP:HH2	1:A:2877:GLN:HB3	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3981:ALA:O	1:A:3986:TRP:NE1	2.46	0.40
1:C:149:THR:HG23	1:C:174:VAL:HG22	2.03	0.40
1:C:1160:ILE:O	1:C:1178:ALA:N	2.55	0.40
1:C:1439:VAL:HG11	1:C:1448:VAL:HG21	2.03	0.40
1:C:1716:ILE:C	1:C:1721:GLU:HB2	2.46	0.40
1:C:2239:PHE:O	1:C:2242:ILE:HG12	2.20	0.40
1:C:2281:ILE:HG12	1:C:2337:PHE:CD1	2.56	0.40
1:C:2735:PHE:CD1	1:C:2907:PRO:HA	2.56	0.40
1:C:3817:LEU:HD13	1:C:3899:PHE:HD1	1.86	0.40
1:C:3958:ALA:CB	1:C:4019:LEU:HD11	2.47	0.40
1:C:3969:ILE:HG21	1:C:4030:LEU:HA	2.03	0.40
1:C:4207:MET:N	1:C:4208:PRO:HD3	2.36	0.40
1:C:4809:PHE:O	1:C:4812:HIS:ND1	2.49	0.40
2:D:82:TYR:CE1	2:D:87:HIS:HB2	2.57	0.40
1:E:64:ILE:O	1:E:111:HIS:HE1	2.03	0.40
1:E:575:LEU:O	1:E:578:ILE:HG22	2.21	0.40
1:E:4695:ASP:OD1	1:E:4696:ASP:N	2.54	0.40
1:E:4878:ASP:HB3	1:E:4881:THR:OG1	2.21	0.40
1:G:545:ASP:HA	1:G:582:HIS:CE1	2.57	0.40
1:G:1232:ARG:HE	1:G:1701:ALA:HB3	1.86	0.40
1:G:3706:SER:O	1:G:3710:LEU:HG	2.21	0.40
1:G:4002:LYS:HE2	1:G:4002:LYS:HB3	1.84	0.40
1:G:4150:LEU:O	1:G:4154:VAL:N	2.38	0.40
1:A:121:LEU:HD11	1:A:136:GLY:HA3	2.03	0.40
1:A:225:GLY:HA2	1:A:389:PHE:HE2	1.86	0.40
1:A:284:HIS:CD2	1:A:287:THR:H	2.39	0.40
1:A:633:LEU:HD22	1:A:1641:ILE:HG22	2.04	0.40
1:A:2281:ILE:HG12	1:A:2337:PHE:CD1	2.56	0.40
1:A:4711:PHE:HB3	1:A:4712:PRO:HD3	2.04	0.40
1:C:523:TYR:CD1	1:C:560:ILE:HG13	2.56	0.40
1:C:2238:TYR:O	1:C:2242:ILE:HG23	2.22	0.40
1:C:3844:LEU:HD22	1:C:3932:ASP:OD2	2.22	0.40
1:C:3997:ALA:O	1:C:4001:MET:HG2	2.21	0.40
2:D:49:MET:N	2:D:54:GLU:OE2	2.55	0.40
2:D:54:GLU:HG3	2:D:55:VAL:HG13	2.03	0.40
1:E:244:LEU:HD22	1:E:375:LYS:HZ3	1.86	0.40
1:E:283:ARG:HB2	1:E:290:TYR:CE2	2.56	0.40
1:E:453:GLU:HA	1:E:454:PRO:HD3	1.91	0.40
1:E:1076:ARG:HH11	1:E:1109:LEU:HD11	1.86	0.40
1:E:2239:PHE:O	1:E:2242:ILE:HG12	2.20	0.40
1:E:2821:TRP:HH2	1:E:2877:GLN:HB3	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3878:ASP:OD1	1:E:3879:GLU:N	2.55	0.40
1:E:3958:ALA:CB	1:E:4019:LEU:HD11	2.48	0.40
1:E:4686:LEU:HA	1:E:4690:GLU:HB2	2.02	0.40
1:E:4829:SER:O	1:E:4939:ALA:HB1	2.21	0.40
1:G:675:LEU:HD23	1:G:676:THR:OG1	2.22	0.40
1:G:1089:TYR:CE2	1:G:1214:PHE:HD1	2.38	0.40
1:G:2099:SER:O	1:G:2103:VAL:HG23	2.20	0.40
1:G:2281:ILE:HG12	1:G:2337:PHE:CD1	2.56	0.40
1:G:4839:MET:O	1:G:4843:LEU:N	2.52	0.40
1:A:281:ARG:HG2	1:A:312:THR:HG23	2.03	0.40
1:A:626:LEU:HB3	1:A:1688:HIS:CE1	2.56	0.40
1:A:1092:PHE:CD2	1:A:1102:VAL:HG21	2.56	0.40
1:A:1238:PHE:CE1	1:A:1612:PHE:HA	2.57	0.40
1:A:1716:ILE:C	1:A:1721:GLU:HB2	2.46	0.40
1:A:4579:PHE:HD2	1:A:4639:MET:HE1	1.86	0.40
1:C:943:ASP:HB3	1:C:1050:GLY:HA3	2.03	0.40
1:C:1092:PHE:CD2	1:C:1102:VAL:HG21	2.57	0.40
1:C:1131:ARG:NH1	1:C:1179:PHE:CD1	2.89	0.40
1:C:1612:PHE:O	1:C:1613:LEU:HB2	2.22	0.40
1:C:2211:MET:HG3	1:C:2229:VAL:HG13	2.04	0.40
1:C:4857:ASN:HD21	1:E:4807:PHE:HD2	1.64	0.40
1:E:225:GLY:HA2	1:E:389:PHE:HE2	1.86	0.40
1:E:2735:PHE:CD1	1:E:2907:PRO:HA	2.56	0.40
1:E:2803:GLU:OE2	1:E:2810:LYS:NZ	2.54	0.40
1:E:3793:MET:O	1:E:3797:THR:HG23	2.22	0.40
1:E:3971:GLY:O	1:E:3973:CYS:N	2.51	0.40
1:E:4823:LEU:HA	1:E:4826:ILE:HD12	2.03	0.40
1:G:281:ARG:HG2	1:G:312:THR:HG23	2.03	0.40
1:G:626:LEU:HB3	1:G:1688:HIS:CE1	2.56	0.40
1:G:1293:LEU:HB3	1:G:1584:ARG:HG2	2.03	0.40
1:G:1674:CYS:SG	1:G:1685:LEU:HD12	2.62	0.40
1:G:4574:ASN:HA	1:G:4577:LEU:HD13	2.03	0.40
1:G:4779:LYS:O	1:G:4783:ILE:HG12	2.22	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	3496/5037 (69%)	3185 (91%)	227 (6%)	84 (2%)	4	30
1	C	3496/5037 (69%)	3185 (91%)	228 (6%)	83 (2%)	4	30
1	E	3496/5037 (69%)	3187 (91%)	226 (6%)	83 (2%)	4	30
1	G	3496/5037 (69%)	3192 (91%)	217 (6%)	87 (2%)	4	29
2	B	105/108 (97%)	96 (91%)	9 (9%)	0	100	100
2	D	105/108 (97%)	96 (91%)	9 (9%)	0	100	100
2	F	105/108 (97%)	96 (91%)	9 (9%)	0	100	100
2	H	105/108 (97%)	93 (89%)	12 (11%)	0	100	100
All	All	14404/20580 (70%)	13130 (91%)	937 (6%)	337 (2%)	7	31

All (337) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	701	GLY
1	A	915	GLU
1	A	916	PRO
1	A	969	PRO
1	A	1589	PRO
1	A	2341	VAL
1	A	2466	LEU
1	A	3826	VAL
1	A	4084	PRO
1	A	4115	SER
1	A	4984	ASN
1	A	4985	LEU
1	C	701	GLY
1	C	808	TYR
1	C	915	GLU
1	C	916	PRO
1	C	969	PRO

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Mol	Chain	Res	Type
1	C	1589	PRO
1	C	2341	VAL
1	C	2466	LEU
1	C	3826	VAL
1	C	4084	PRO
1	C	4115	SER
1	C	4984	ASN
1	C	4985	LEU
1	E	701	GLY
1	E	915	GLU
1	E	916	PRO
1	E	969	PRO
1	E	2341	VAL
1	E	2466	LEU
1	E	3826	VAL
1	E	4084	PRO
1	E	4115	SER
1	E	4984	ASN
1	E	4985	LEU
1	G	701	GLY
1	G	808	TYR
1	G	915	GLU
1	G	916	PRO
1	G	969	PRO
1	G	1589	PRO
1	G	2341	VAL
1	G	2466	LEU
1	G	3664	THR
1	G	3826	VAL
1	G	4084	PRO
1	G	4115	SER
1	G	4984	ASN
1	G	4985	LEU
1	A	208	CYS
1	A	329	ARG
1	A	385	ASP
1	A	510	GLU
1	A	557	SER
1	A	609	CYS
1	A	808	TYR
1	A	865	PRO
1	A	1480	GLN

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Mol	Chain	Res	Type
1	A	1768	THR
1	A	2281	ILE
1	A	2359	ARG
1	A	2465	ASP
1	A	3714	SER
1	A	3806	ASN
1	A	3941	ASP
1	A	4206	GLU
1	C	208	CYS
1	C	329	ARG
1	C	385	ASP
1	C	510	GLU
1	C	557	SER
1	C	609	CYS
1	C	865	PRO
1	C	1480	GLN
1	C	1768	THR
1	C	2281	ILE
1	C	2359	ARG
1	C	2465	ASP
1	C	3714	SER
1	C	3806	ASN
1	C	3941	ASP
1	C	4206	GLU
1	E	208	CYS
1	E	329	ARG
1	E	385	ASP
1	E	510	GLU
1	E	557	SER
1	E	609	CYS
1	E	808	TYR
1	E	865	PRO
1	E	1480	GLN
1	E	1768	THR
1	E	2281	ILE
1	E	2359	ARG
1	E	2465	ASP
1	E	3714	SER
1	E	3806	ASN
1	E	3941	ASP
1	E	4206	GLU
1	G	208	CYS

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Mol	Chain	Res	Type
1	G	329	ARG
1	G	385	ASP
1	G	510	GLU
1	G	557	SER
1	G	609	CYS
1	G	865	PRO
1	G	1480	GLN
1	G	1768	THR
1	G	2281	ILE
1	G	2359	ARG
1	G	2465	ASP
1	G	3714	SER
1	G	3806	ASN
1	G	3843	ASP
1	G	3941	ASP
1	G	4031	LEU
1	G	4036	VAL
1	A	692	TYR
1	A	698	GLY
1	A	720	HIS
1	A	770	ALA
1	A	817	PRO
1	A	827	LYS
1	A	1034	SER
1	A	1483	VAL
1	A	1545	ASN
1	A	1599	MET
1	A	1717	SER
1	A	1747	LEU
1	A	1818	ALA
1	A	1854	PHE
1	A	2826	ALA
1	A	4036	VAL
1	A	4186	ALA
1	C	30	LYS
1	C	692	TYR
1	C	698	GLY
1	C	720	HIS
1	C	770	ALA
1	C	817	PRO
1	C	827	LYS
1	C	1034	SER

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Mol	Chain	Res	Type
1	C	1483	VAL
1	C	1545	ASN
1	C	1599	MET
1	C	1717	SER
1	C	1747	LEU
1	C	1818	ALA
1	C	1854	PHE
1	C	2826	ALA
1	C	4036	VAL
1	C	4186	ALA
1	E	30	LYS
1	E	692	TYR
1	E	698	GLY
1	E	720	HIS
1	E	770	ALA
1	E	817	PRO
1	E	827	LYS
1	E	1034	SER
1	E	1483	VAL
1	E	1545	ASN
1	E	1599	MET
1	E	1717	SER
1	E	1747	LEU
1	E	1818	ALA
1	E	1854	PHE
1	E	2826	ALA
1	E	4186	ALA
1	G	692	TYR
1	G	698	GLY
1	G	720	HIS
1	G	770	ALA
1	G	817	PRO
1	G	827	LYS
1	G	1034	SER
1	G	1483	VAL
1	G	1545	ASN
1	G	1599	MET
1	G	1717	SER
1	G	1747	LEU
1	G	1818	ALA
1	G	1854	PHE
1	G	4186	ALA

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Mol	Chain	Res	Type
1	G	4691	GLN
1	G	5025	GLY
1	A	29	LEU
1	A	30	LYS
1	A	309	THR
1	A	676	THR
1	A	826	ILE
1	A	1134	LEU
1	A	1186	ASP
1	A	1206	GLN
1	A	1541	GLN
1	A	4032	GLU
1	A	4052	SER
1	A	4119	GLU
1	A	4691	GLN
1	A	4869	GLU
1	C	29	LEU
1	C	676	THR
1	C	826	ILE
1	C	1134	LEU
1	C	1186	ASP
1	C	1206	GLN
1	C	1541	GLN
1	C	1614	GLN
1	C	4032	GLU
1	C	4052	SER
1	C	4119	GLU
1	C	4691	GLN
1	C	4869	GLU
1	E	29	LEU
1	E	676	THR
1	E	826	ILE
1	E	1134	LEU
1	E	1186	ASP
1	E	1206	GLN
1	E	1541	GLN
1	E	4032	GLU
1	E	4036	VAL
1	E	4052	SER
1	E	4119	GLU
1	E	4691	GLN
1	E	4869	GLU

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Mol	Chain	Res	Type
1	E	5025	GLY
1	G	29	LEU
1	G	30	LYS
1	G	676	THR
1	G	826	ILE
1	G	1134	LEU
1	G	1186	ASP
1	G	1206	GLN
1	G	1541	GLN
1	G	2826	ALA
1	G	4119	GLU
1	G	4206	GLU
1	G	4869	GLU
1	G	5027	CYS
1	A	252	VAL
1	A	422	SER
1	A	751	SER
1	A	1017	ARG
1	A	1126	GLY
1	A	1614	GLN
1	A	1772	ARG
1	A	2191	PHE
1	A	3664	THR
1	A	4208	PRO
1	A	5025	GLY
1	A	5027	CYS
1	C	252	VAL
1	C	309	THR
1	C	422	SER
1	C	751	SER
1	C	1017	ARG
1	C	1772	ARG
1	C	2191	PHE
1	C	3664	THR
1	C	4208	PRO
1	C	5025	GLY
1	C	5027	CYS
1	E	252	VAL
1	E	309	THR
1	E	422	SER
1	E	751	SER
1	E	1017	ARG

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Mol	Chain	Res	Type
1	E	1126	GLY
1	E	1772	ARG
1	E	2191	PHE
1	E	3664	THR
1	E	4208	PRO
1	E	5027	CYS
1	G	252	VAL
1	G	309	THR
1	G	422	SER
1	G	751	SER
1	G	1017	ARG
1	G	1772	ARG
1	G	2191	PHE
1	G	3668	SER
1	G	4040	ILE
1	G	4208	PRO
1	G	4821	LYS
1	A	611	GLY
1	A	740	PRO
1	A	4712	PRO
1	A	4734	ARG
1	A	4872	PRO
1	C	611	GLY
1	C	740	PRO
1	C	1126	GLY
1	C	4712	PRO
1	C	4872	PRO
1	E	611	GLY
1	E	740	PRO
1	E	4712	PRO
1	E	4734	ARG
1	E	4872	PRO
1	G	611	GLY
1	G	740	PRO
1	G	1126	GLY
1	G	4872	PRO
1	G	4963	ILE
1	A	781	VAL
1	A	1830	VAL
1	A	4040	ILE
1	A	4963	ILE
1	C	781	VAL

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Mol	Chain	Res	Type
1	C	1830	VAL
1	C	4040	ILE
1	C	4963	ILE
1	E	781	VAL
1	E	1830	VAL
1	E	4040	ILE
1	E	4963	ILE
1	G	781	VAL
1	G	1830	VAL
1	G	3085	PRO
1	G	4712	PRO
1	C	842	PRO
1	G	842	PRO
1	G	2044	ILE
1	A	842	PRO
1	A	1544	PRO
1	E	842	PRO
1	E	1544	PRO
1	E	1589	PRO
1	G	4895	GLY
1	C	1544	PRO
1	G	1544	PRO
1	A	1253	PRO
1	C	1253	PRO
1	E	1253	PRO
1	G	1253	PRO

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	2503/4276 (58%)	2483 (99%)	20 (1%)	73	77
1	C	2502/4276 (58%)	2483 (99%)	19 (1%)	73	77
1	E	2500/4276 (58%)	2481 (99%)	19 (1%)	73	77
1	G	2501/4276 (58%)	2481 (99%)	20 (1%)	73	77

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	B	89/90 (99%)	89 (100%)	0	100	100
2	D	89/90 (99%)	89 (100%)	0	100	100
2	F	89/90 (99%)	89 (100%)	0	100	100
2	H	89/90 (99%)	89 (100%)	0	100	100
All	All	10362/17464 (59%)	10284 (99%)	78 (1%)	70	77

All (78) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	530	ILE
1	A	806	PRO
1	A	859	VAL
1	A	865	PRO
1	A	914	PRO
1	A	916	PRO
1	A	939	VAL
1	A	979	PRO
1	A	1001	VAL
1	A	1043	VAL
1	A	1055	PRO
1	A	1455	PRO
1	A	1650	ILE
1	A	3758	MET
1	A	3841	VAL
1	A	4838	VAL
1	A	4850	LEU
1	A	4960	ILE
1	A	4972	PRO
1	A	5012	LYS
1	C	530	ILE
1	C	806	PRO
1	C	859	VAL
1	C	865	PRO
1	C	914	PRO
1	C	916	PRO
1	C	939	VAL
1	C	979	PRO
1	C	1001	VAL
1	C	1043	VAL
1	C	1055	PRO
1	C	1455	PRO

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Mol	Chain	Res	Type
1	C	1650	ILE
1	C	3758	MET
1	C	3841	VAL
1	C	4838	VAL
1	C	4850	LEU
1	C	4972	PRO
1	C	5012	LYS
1	E	530	ILE
1	E	806	PRO
1	E	859	VAL
1	E	865	PRO
1	E	914	PRO
1	E	916	PRO
1	E	979	PRO
1	E	1001	VAL
1	E	1043	VAL
1	E	1055	PRO
1	E	1455	PRO
1	E	1650	ILE
1	E	3758	MET
1	E	3841	VAL
1	E	4838	VAL
1	E	4850	LEU
1	E	4932	ILE
1	E	4972	PRO
1	E	5012	LYS
1	G	530	ILE
1	G	806	PRO
1	G	859	VAL
1	G	865	PRO
1	G	914	PRO
1	G	916	PRO
1	G	939	VAL
1	G	979	PRO
1	G	1001	VAL
1	G	1043	VAL
1	G	1055	PRO
1	G	1455	PRO
1	G	1650	ILE
1	G	3758	MET
1	G	3841	VAL
1	G	4106	PRO

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Mol	Chain	Res	Type
1	G	4166	LEU
1	G	4850	LEU
1	G	4960	ILE
1	G	4972	PRO

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (264) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	12	GLN
1	A	105	HIS
1	A	111	HIS
1	A	113	HIS
1	A	138	GLN
1	A	273	HIS
1	A	278	GLN
1	A	379	HIS
1	A	405	HIS
1	A	460	GLN
1	A	465	GLN
1	A	489	ASN
1	A	582	HIS
1	A	596	ASN
1	A	618	GLN
1	A	678	GLN
1	A	765	GLN
1	A	772	ASN
1	A	812	HIS
1	A	904	HIS
1	A	1125	ASN
1	A	1201	HIS
1	A	1244	GLN
1	A	1254	HIS
1	A	1274	HIS
1	A	1631	GLN
1	A	1645	ASN
1	A	1663	HIS
1	A	1665	HIS
1	A	1678	ASN
1	A	1696	HIS
1	A	1861	GLN
1	A	1949	GLN
1	A	2127	GLN

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Mol	Chain	Res	Type
1	A	2161	GLN
1	A	2184	ASN
1	A	2194	HIS
1	A	2247	GLN
1	A	2420	HIS
1	A	2744	ASN
1	A	2773	ASN
1	A	2856	ASN
1	A	2883	HIS
1	A	3647	HIS
1	A	3651	ASN
1	A	3781	GLN
1	A	3895	HIS
1	A	3906	GLN
1	A	3970	GLN
1	A	3982	HIS
1	A	3998	HIS
1	A	4009	GLN
1	A	4162	ASN
1	A	4204	GLN
1	A	4216	GLN
1	A	4691	GLN
1	A	4803	HIS
1	A	4806	ASN
1	A	4857	ASN
1	A	4864	ASN
1	A	4886	HIS
1	A	4978	HIS
1	A	4987	ASN
1	A	5003	HIS
1	A	5031	GLN
2	B	25	HIS
2	B	87	HIS
1	C	12	GLN
1	C	105	HIS
1	C	111	HIS
1	C	113	HIS
1	C	138	GLN
1	C	181	HIS
1	C	203	ASN
1	C	273	HIS
1	C	278	GLN

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Mol	Chain	Res	Type
1	C	379	HIS
1	C	405	HIS
1	C	460	GLN
1	C	465	GLN
1	C	489	ASN
1	C	582	HIS
1	C	596	ASN
1	C	618	GLN
1	C	678	GLN
1	C	765	GLN
1	C	772	ASN
1	C	812	HIS
1	C	904	HIS
1	C	1201	HIS
1	C	1274	HIS
1	C	1631	GLN
1	C	1645	ASN
1	C	1663	HIS
1	C	1665	HIS
1	C	1678	ASN
1	C	1696	HIS
1	C	1861	GLN
1	C	1949	GLN
1	C	2127	GLN
1	C	2161	GLN
1	C	2184	ASN
1	C	2194	HIS
1	C	2247	GLN
1	C	2420	HIS
1	C	2744	ASN
1	C	2763	HIS
1	C	2856	ASN
1	C	3647	HIS
1	C	3651	ASN
1	C	3781	GLN
1	C	3895	HIS
1	C	3906	GLN
1	C	3970	GLN
1	C	3982	HIS
1	C	3998	HIS
1	C	4009	GLN
1	C	4162	ASN

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Mol	Chain	Res	Type
1	C	4204	GLN
1	C	4216	GLN
1	C	4691	GLN
1	C	4803	HIS
1	C	4806	ASN
1	C	4857	ASN
1	C	4864	ASN
1	C	4886	HIS
1	C	4978	HIS
1	C	4987	ASN
1	C	5003	HIS
1	C	5031	GLN
2	D	25	HIS
2	D	87	HIS
1	E	12	GLN
1	E	105	HIS
1	E	111	HIS
1	E	113	HIS
1	E	138	GLN
1	E	203	ASN
1	E	273	HIS
1	E	278	GLN
1	E	379	HIS
1	E	405	HIS
1	E	460	GLN
1	E	465	GLN
1	E	489	ASN
1	E	582	HIS
1	E	596	ASN
1	E	618	GLN
1	E	678	GLN
1	E	765	GLN
1	E	772	ASN
1	E	812	HIS
1	E	904	HIS
1	E	1125	ASN
1	E	1201	HIS
1	E	1244	GLN
1	E	1274	HIS
1	E	1460	HIS
1	E	1631	GLN
1	E	1663	HIS

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Mol	Chain	Res	Type
1	E	1665	HIS
1	E	1678	ASN
1	E	1693	GLN
1	E	1696	HIS
1	E	1861	GLN
1	E	1949	GLN
1	E	2127	GLN
1	E	2161	GLN
1	E	2184	ASN
1	E	2194	HIS
1	E	2247	GLN
1	E	2420	HIS
1	E	2744	ASN
1	E	2763	HIS
1	E	2856	ASN
1	E	3647	HIS
1	E	3651	ASN
1	E	3781	GLN
1	E	3895	HIS
1	E	3906	GLN
1	E	3970	GLN
1	E	3982	HIS
1	E	3998	HIS
1	E	4009	GLN
1	E	4162	ASN
1	E	4204	GLN
1	E	4216	GLN
1	E	4691	GLN
1	E	4803	HIS
1	E	4806	ASN
1	E	4857	ASN
1	E	4864	ASN
1	E	4886	HIS
1	E	4978	HIS
1	E	4987	ASN
1	E	5003	HIS
1	E	5031	GLN
2	F	25	HIS
2	F	87	HIS
1	G	12	GLN
1	G	57	ASN
1	G	105	HIS

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Mol	Chain	Res	Type
1	G	111	HIS
1	G	113	HIS
1	G	138	GLN
1	G	203	ASN
1	G	218	HIS
1	G	273	HIS
1	G	278	GLN
1	G	379	HIS
1	G	405	HIS
1	G	460	GLN
1	G	465	GLN
1	G	489	ASN
1	G	582	HIS
1	G	596	ASN
1	G	618	GLN
1	G	678	GLN
1	G	772	ASN
1	G	812	HIS
1	G	904	HIS
1	G	1125	ASN
1	G	1254	HIS
1	G	1274	HIS
1	G	1460	HIS
1	G	1631	GLN
1	G	1645	ASN
1	G	1663	HIS
1	G	1665	HIS
1	G	1678	ASN
1	G	1696	HIS
1	G	1861	GLN
1	G	1949	GLN
1	G	2127	GLN
1	G	2161	GLN
1	G	2184	ASN
1	G	2194	HIS
1	G	2247	GLN
1	G	2420	HIS
1	G	2744	ASN
1	G	3651	ASN
1	G	3895	HIS
1	G	3906	GLN
1	G	3998	HIS

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Mol	Chain	Res	Type
1	G	4009	GLN
1	G	4020	GLN
1	G	4142	ASN
1	G	4153	HIS
1	G	4204	GLN
1	G	4223	ASN
1	G	4662	ASN
1	G	4691	GLN
1	G	4836	GLN
1	G	4857	ASN
1	G	4864	ASN
1	G	4886	HIS
1	G	4933	GLN
1	G	4946	GLN
1	G	4978	HIS
1	G	4987	ASN
1	G	5015	GLN
1	G	5031	GLN
2	H	25	HIS
2	H	87	HIS

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

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

5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

5.6 Ligand geometry ⓘ

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

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

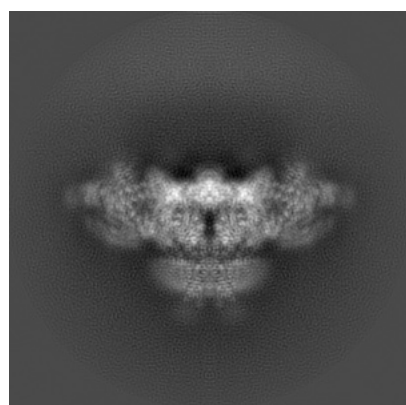
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-9519. These allow visual inspection of the internal detail of the map and identification of artifacts.

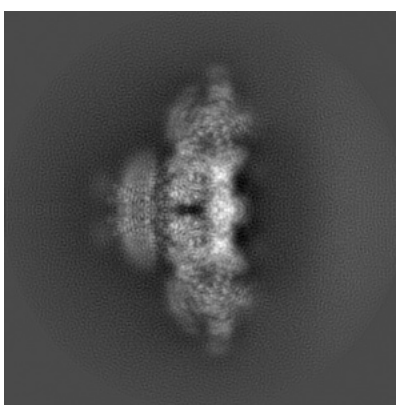
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

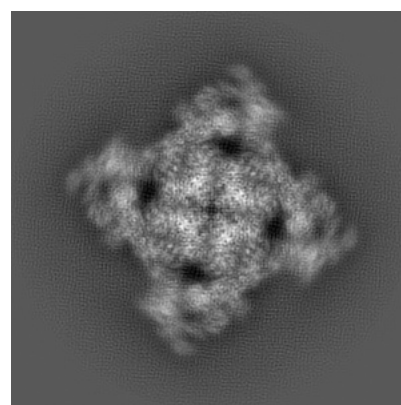
6.1.1 Primary map



X



Y

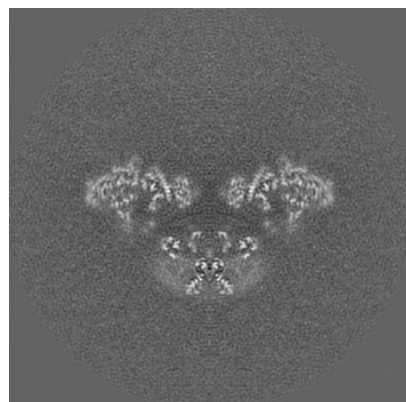


Z

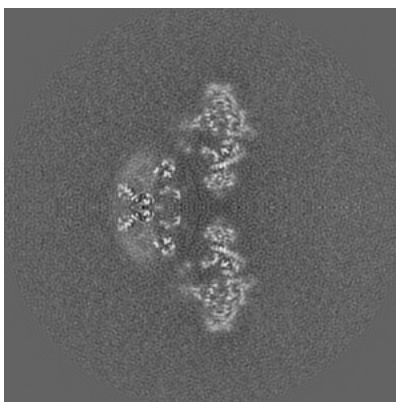
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

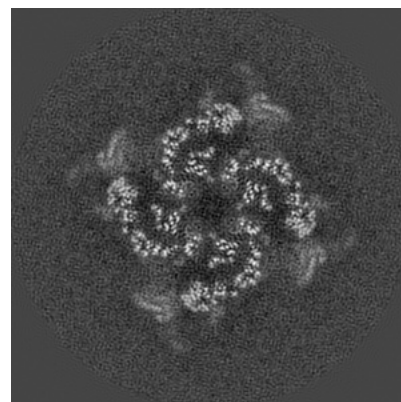
6.2.1 Primary map



X Index: 180



Y Index: 180

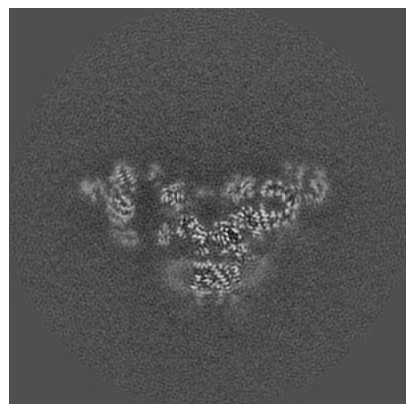


Z Index: 180

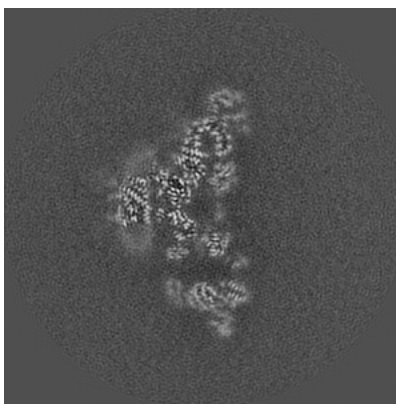
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

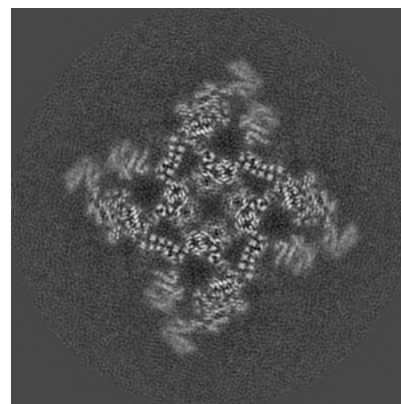
6.3.1 Primary map



X Index: 169



Y Index: 191

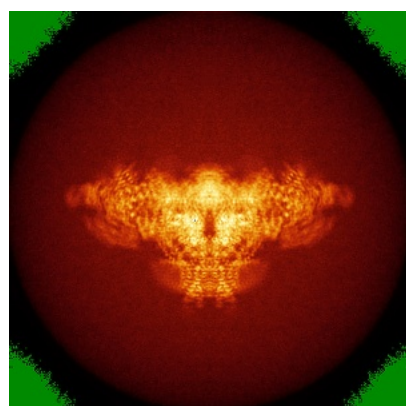


Z Index: 190

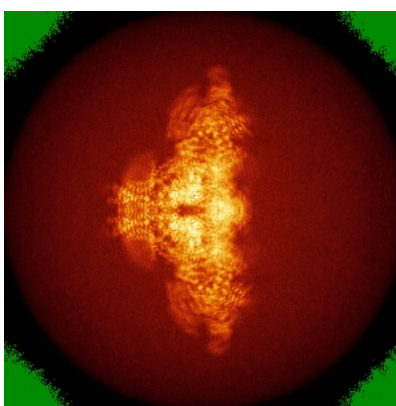
The images above show the largest variance slices of the map in three orthogonal directions.

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

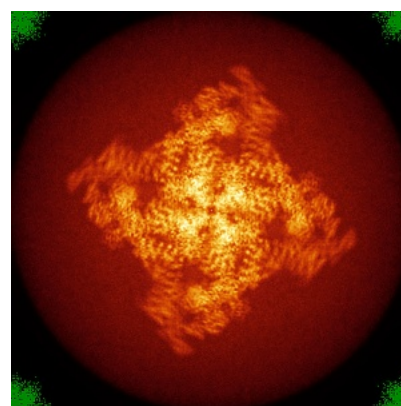
6.4.1 Primary map



X



Y

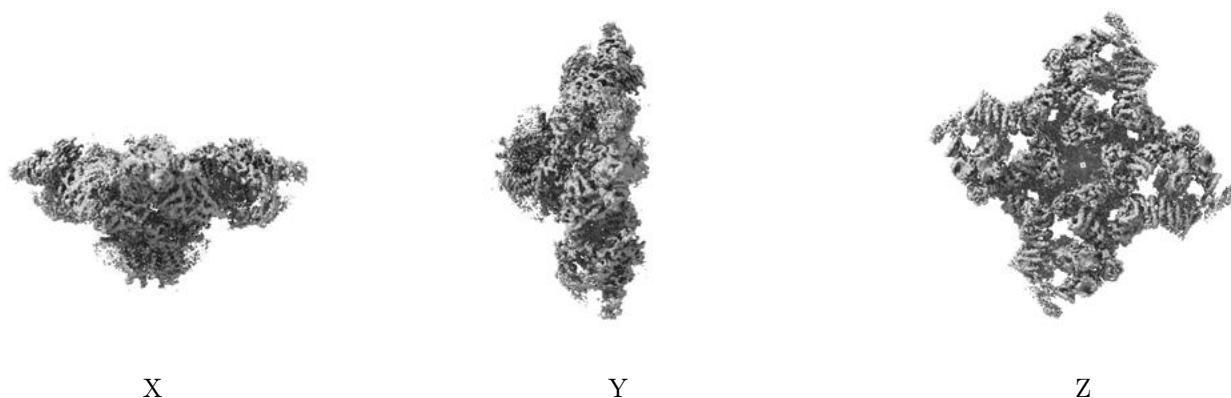


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.085. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

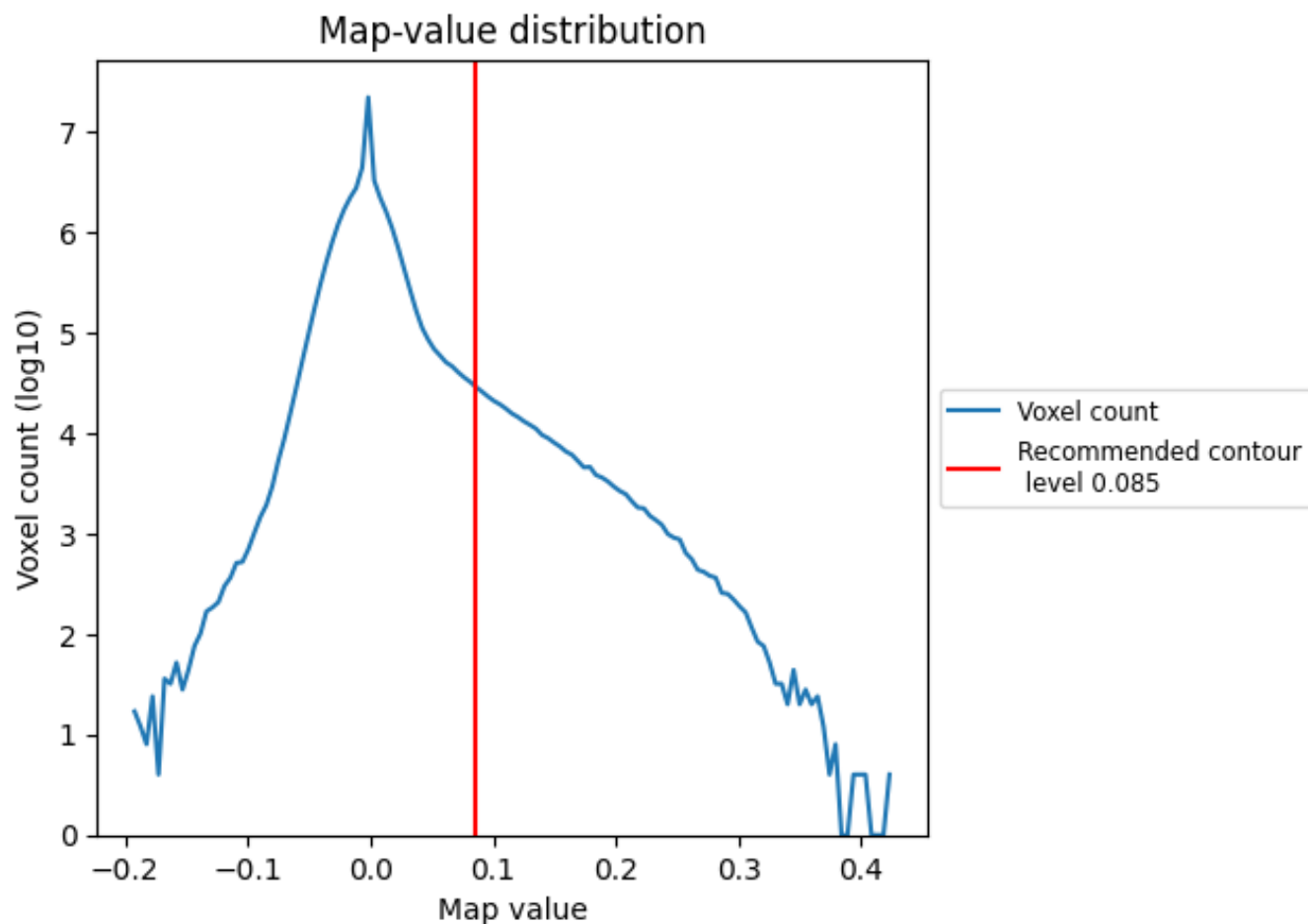
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

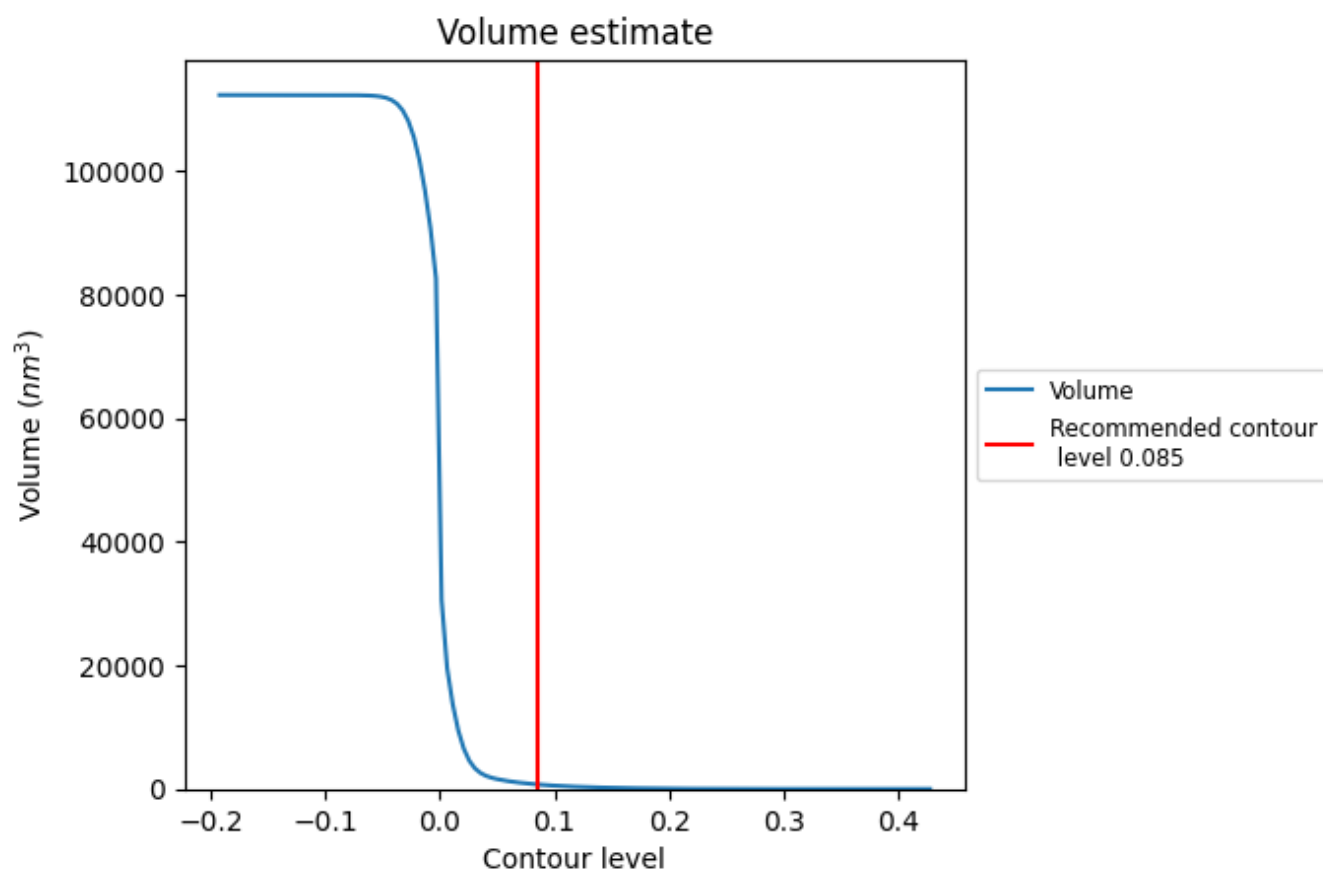
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

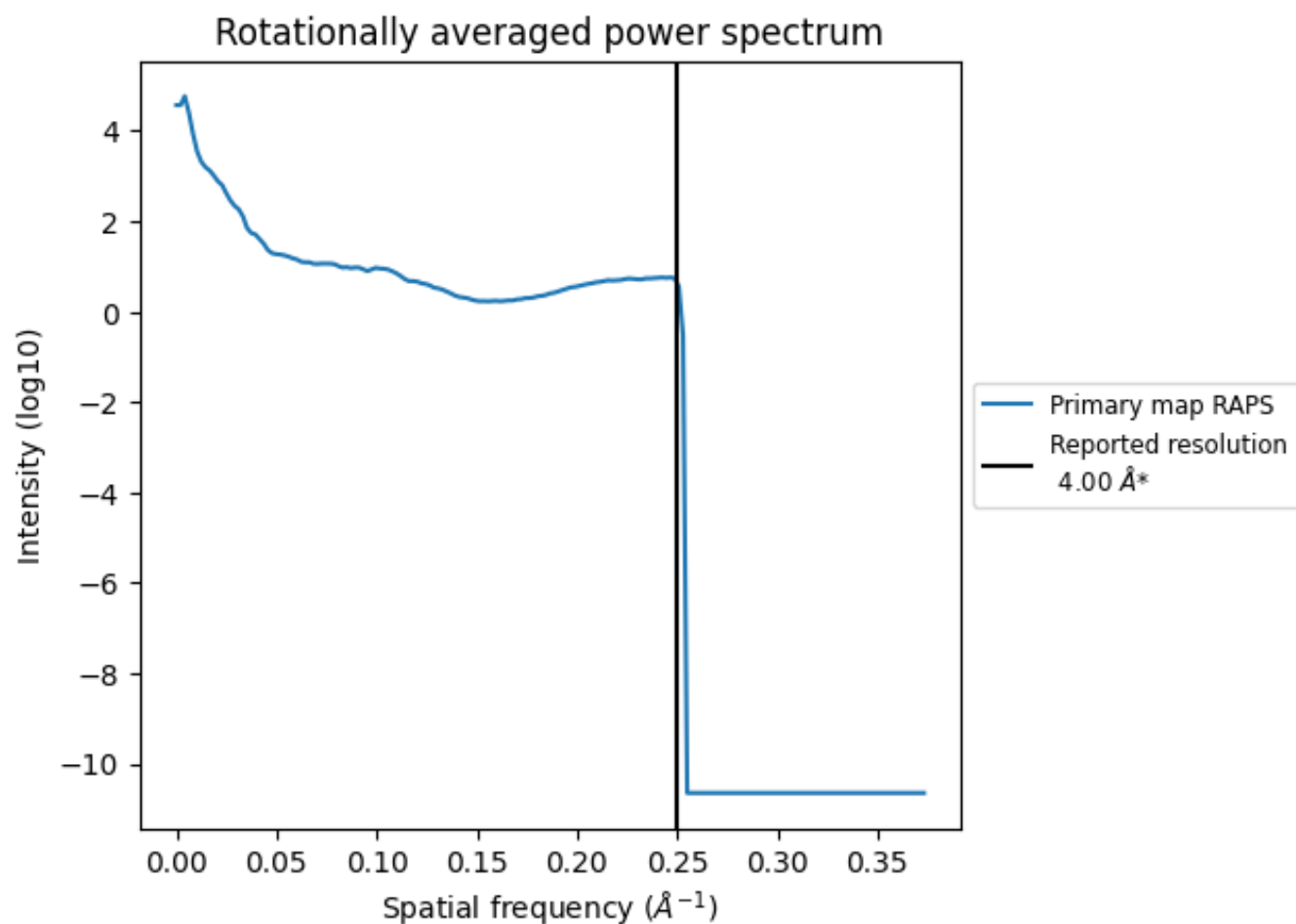
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 734 nm³; this corresponds to an approximate mass of 663 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 0.250 $\text{\AA}^{-1}$

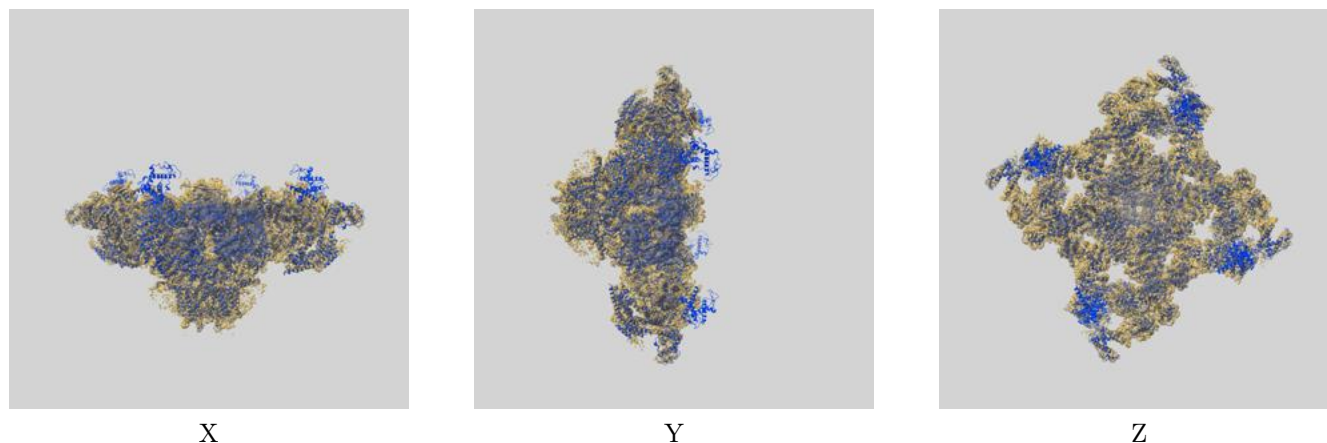
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

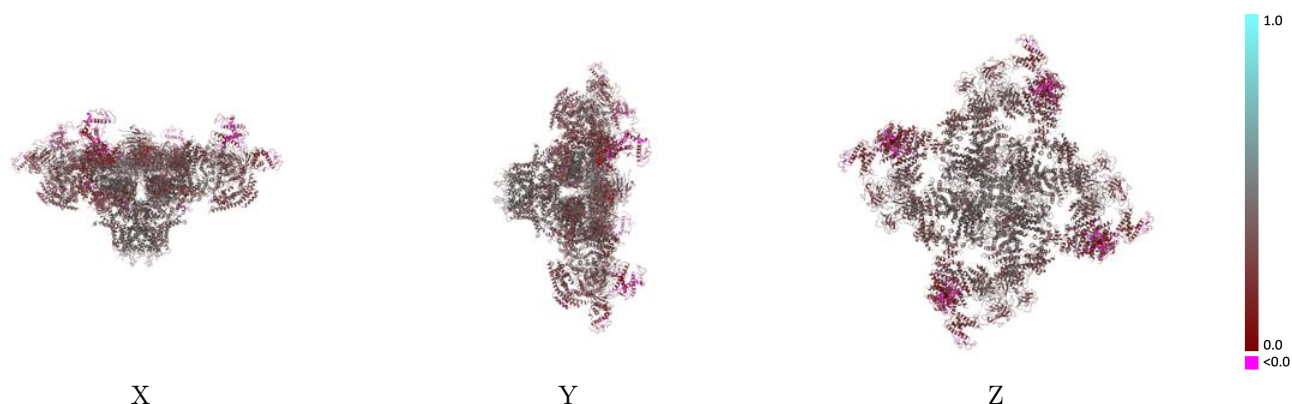
This section contains information regarding the fit between EMDB map EMD-9519 and PDB model 5GKZ. Per-residue inclusion information can be found in section 3 on page 5.

9.1 Map-model overlay [i](#)



The images above show the 3D surface view of the map at the recommended contour level 0.085 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](#)

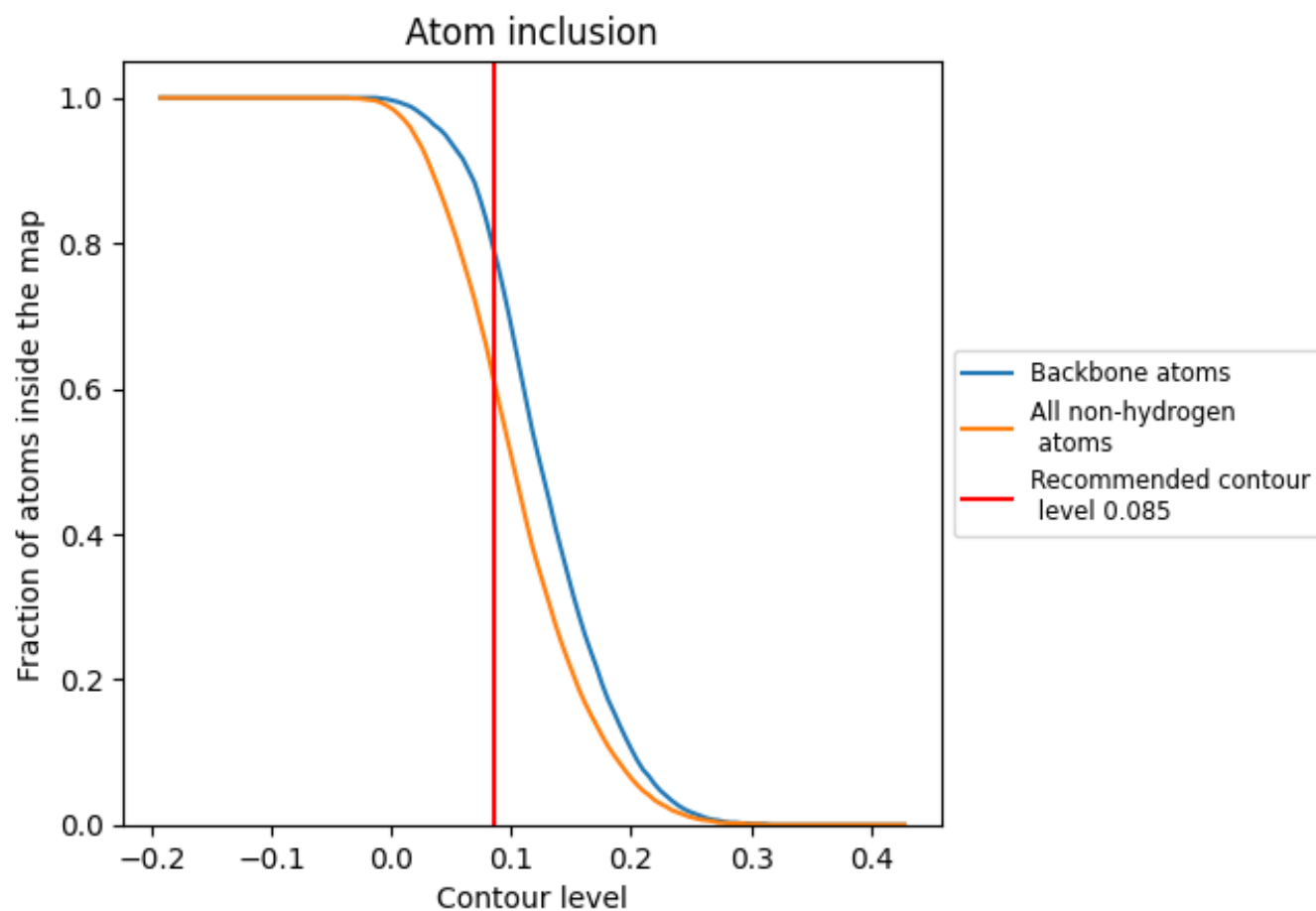


The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

This section was not generated.

9.4 Atom inclusion [i](#)



At the recommended contour level, 79% of all backbone atoms, 62% 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 (0.085) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6150	0.3370
A	0.6160	0.3370
B	0.5720	0.3390
C	0.6170	0.3360
D	0.5700	0.3370
E	0.6170	0.3360
F	0.5700	0.3360
G	0.6170	0.3400
H	0.5710	0.3380

