



## Full wwPDB EM Validation Report ⓘ

May 20, 2025 – 01:48 PM EDT

PDB ID : 8UQ2 / pdb\_00008uq2  
EMDB ID : EMD-42458  
Title : Structure of human RyR2-S2808D in the subprimed state  
Authors : Miotto, M.C.; Marks, A.R.  
Deposited on : 2023-10-23  
Resolution : 2.98 Å (reported)  
Based on initial model : 7UA5

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev118  
Mogul : 2022.3.0, CSD as543be (2022)  
MolProbity : 4-5-2 with Phenix2.0rc1  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.43.1

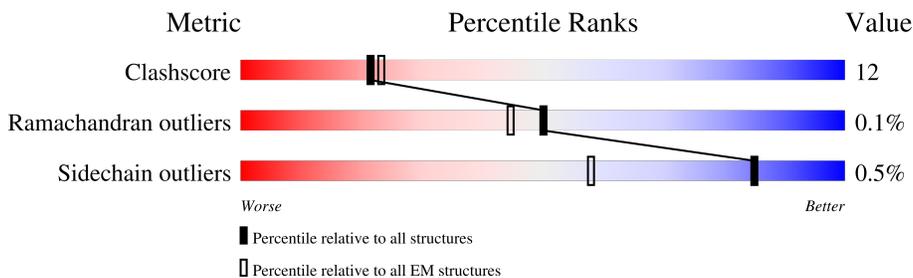
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 2.98 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	A	4967	
1	B	4967	
1	C	4967	
1	D	4967	
2	E	108	
2	F	108	
2	G	108	
2	H	108	

## 2 Entry composition i

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

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

- Molecule 1 is a protein called Ryanodine receptor 2.

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

There are 4 discrepancies between the modelled and reference sequences:

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

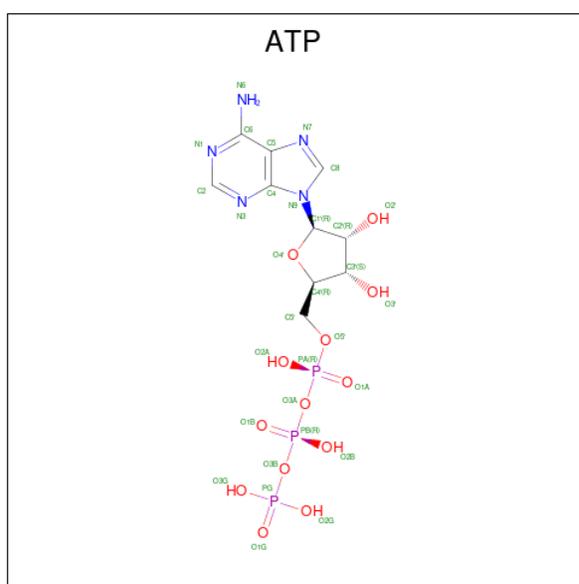
- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1B.

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

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

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

- Molecule 4 is ADENOSINE-5'-TRIPHOSPHATE (CCD ID: ATP) (formula:  $C_{10}H_{16}N_5O_{13}P_3$ ) (labeled as "Ligand of Interest" by depositor).



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

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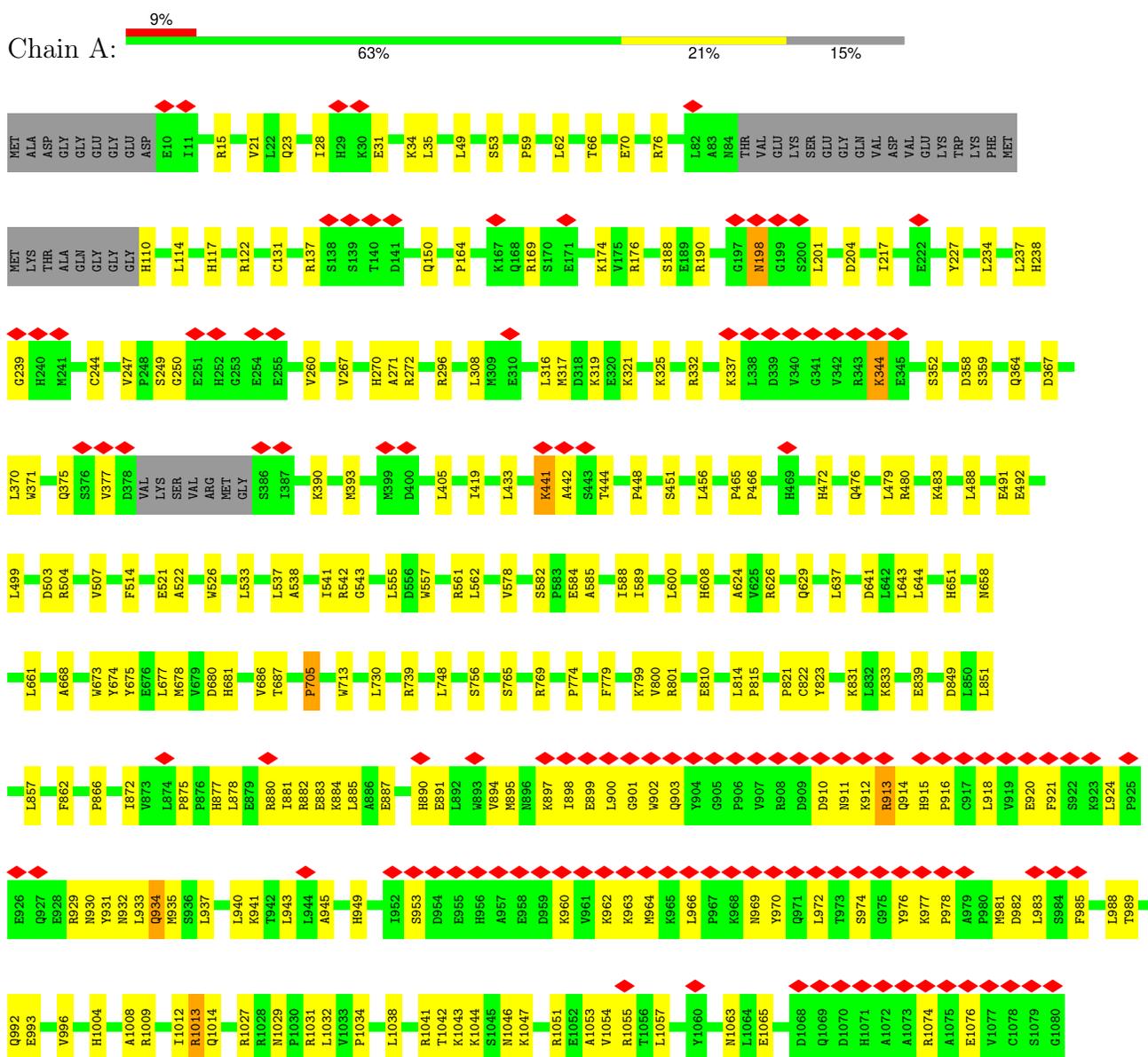
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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
4	D	1	31	10	5	13	3	0

### 3 Residue-property plots

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

#### • Molecule 1: Ryanodine receptor 2

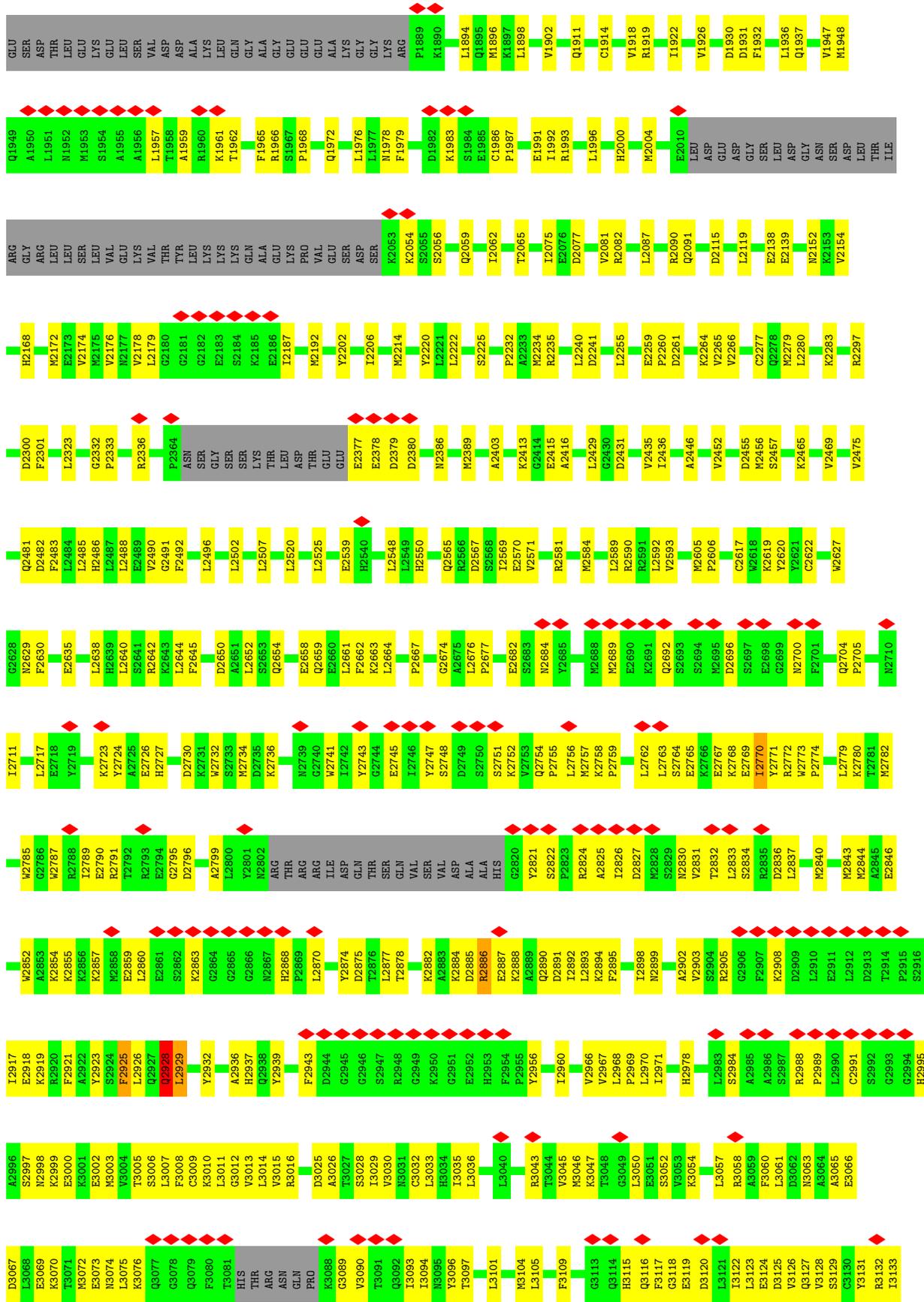




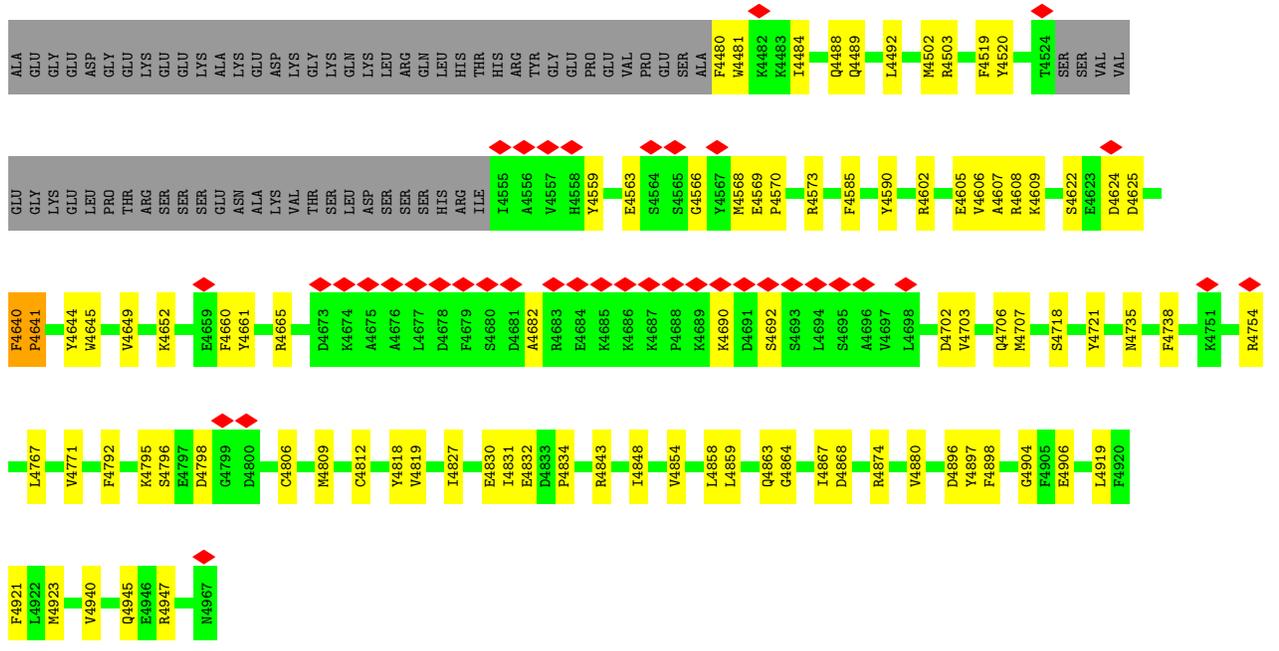




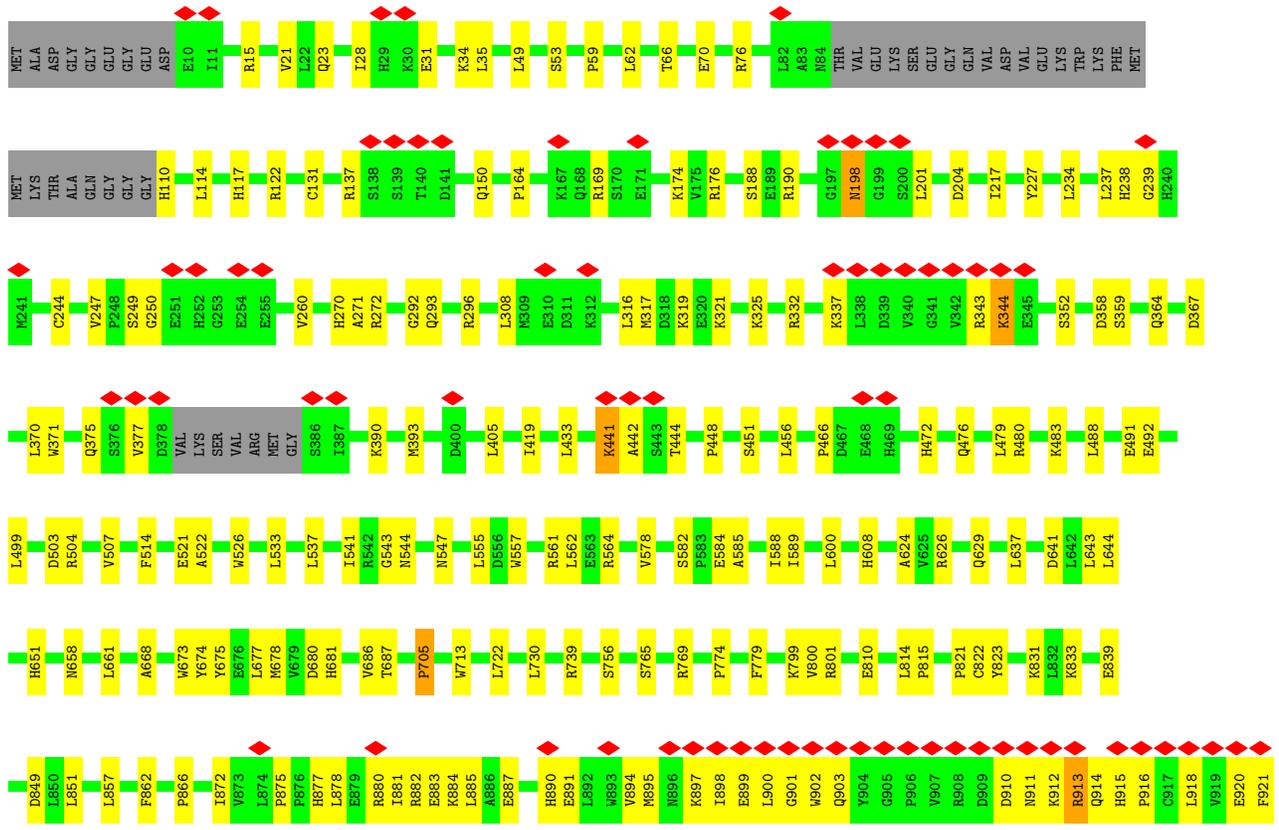








• Molecule 1: Ryanodine receptor 2

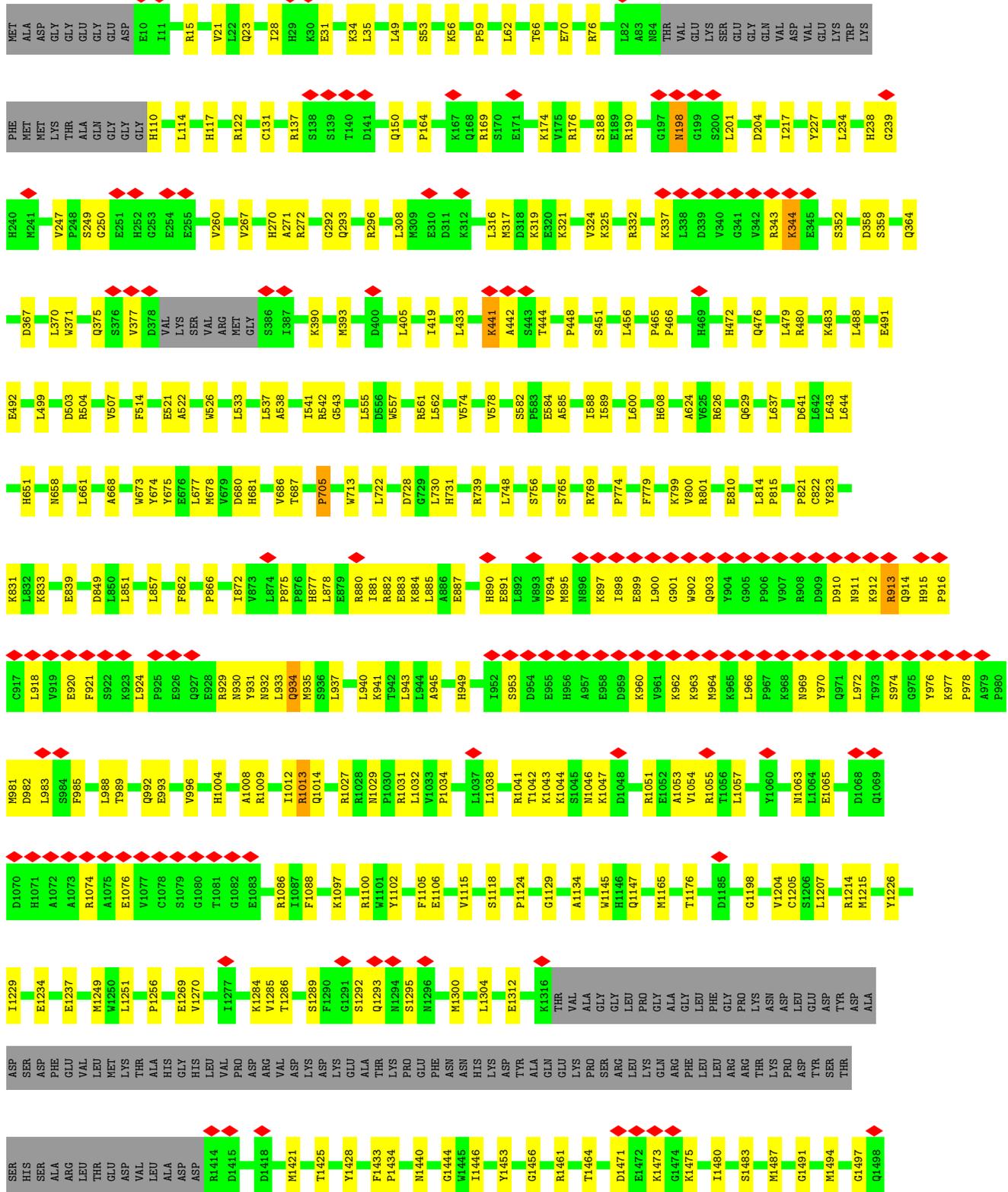


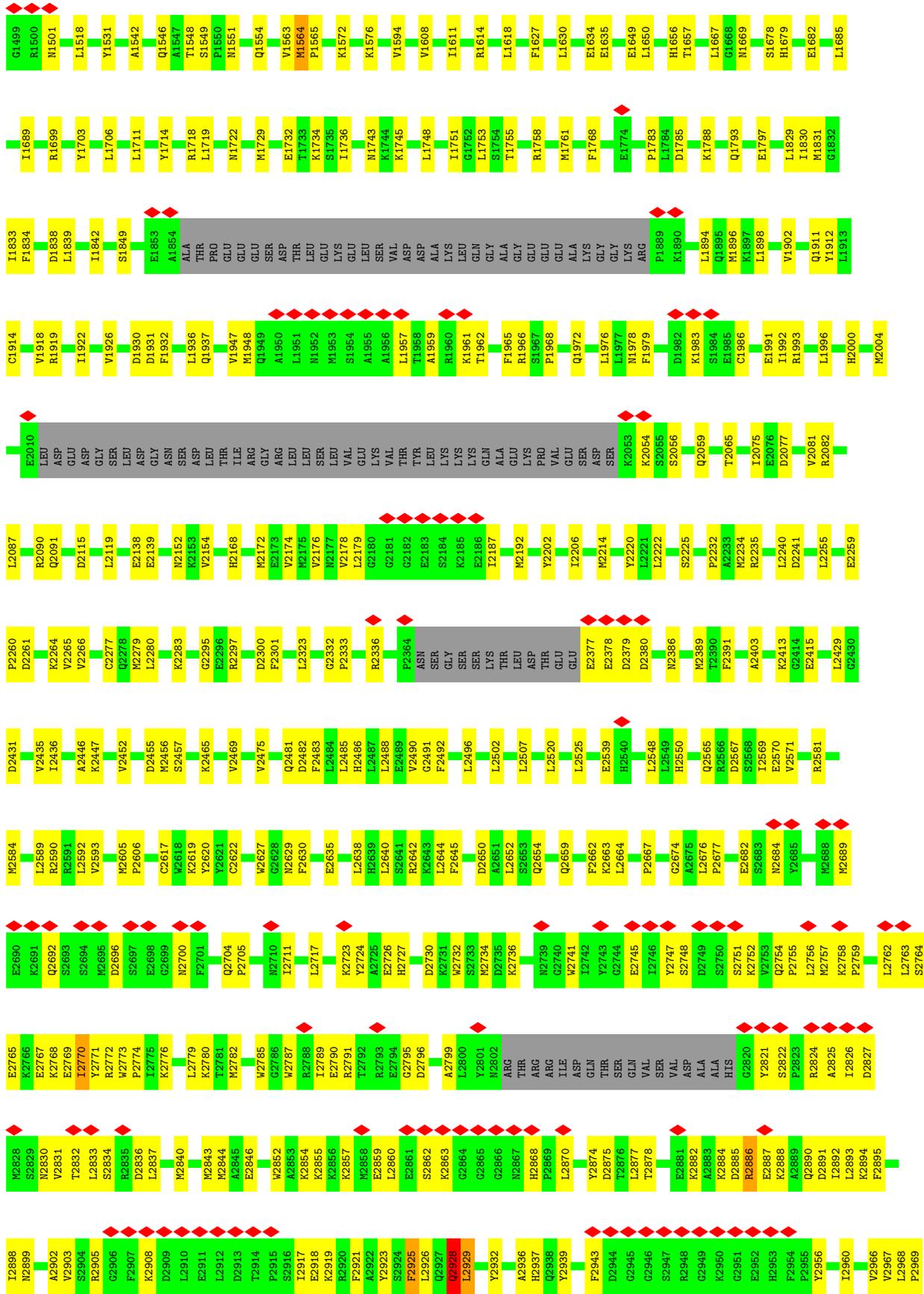


SER	ALA	LEU	L3277	M3207	V3126	A3986	F2907	R2835	R2772	G2889	C2617	R2456
MET	GLU	LYS	G3278	N3279	Q3127	S2987	K2908	D2836	W2773	M2700	W2618	S2457
THR	VAL	ALA	N3279	L3211	S3128	R2988	D2909	L2837	P2774	F2701	Y2620	K2465
LEU	PHE	ALA	E3212	R2989	D3062	P2989	L2910	M2840	I2775	Q2704	Y2621	V2469
ILE	TRP	ALA	L3213	C2991	A3064	C2991	E2911	P2705	L2779	P2705	Y2622	V2475
VAL	SER	ASP	R3132	S2992	A3065	S2992	L2912	K2710	K2789	M2710	G2628	Q2481
ALA	LYS	ASP	L3133	S2993	E3066	S2993	D2913	I2711	K2780	I2711	G2628	N2629
LEU	HIS	SER	L3134	C2994	D3067	C2994	T2914	E2846	E2781	E2717	F2630	D2482
LEU	ALA	GLU	L3137	H2995	E3069	C2994	T2915	E2846	E2782	E2717	F2630	F2483
ARG	PHE	ALA	Y3138	H2995	F3070	H2995	S2916	W2852	E2785	E2717	E2644	L2484
LEU	LYS	LEU	A3139	N2998	K3072	N2998	I2917	A2853	G2786	E2717	F2645	L2485
LEU	ARG	LEU	Y3147	K2999	E3073	K2999	E2918	K2854	W2787	Y2719	D2650	L2486
PRO	GLU	ILE	R3227	N3074	N3074	K2999	E2918	K2855	R2788	K2723	L2638	H2487
GLY	GLN	LEU	Y3228	L3075	L3075	K2999	E2918	K2855	L2789	Y2724	L2640	L2488
LEU	ASN	ASP	R3150	K3076	K3076	E3002	E2920	K2857	E2790	A2725	S2641	E2489
PHE	ASN	PHE	Q3151	M3003	Q3077	M3003	A2922	M2858	R2791	A2725	R2642	V2490
THR	VAL	THR	R3152	S3005	G3078	S3005	S2924	E2859	L2792	A2725	K2643	C2491
LEU	VAL	THR	G3156	S3006	Q3079	S3006	S2924	L2860	R2792	H2727	F2644	F2492
LEU	ALA	LEU	L3159	F3008	Q3081	F3008	L2926	E2861	E2794	D2730	L2644	L2496
ARG	GLU	ARG	F3162	C3009	T3081	C3009	Q2927	S2862	G2795	K2731	D2650	L2502
ASP	ILE	ASP	A3163	K3010	HIS	K3010	L2929	K2863	A2799	K2732	L2651	L2507
GLN	ASN	LEU	G3164	L3011	THR	L3011	L2929	G2864	L2800	S2733	L2652	L2507
LEU	ASN	LEU	A3165	G3012	ARG	G3012	Y2932	G2865	L2800	S2733	L2652	L2507
ILE	MET	ALA	R3166	V3013	ASN	V3013	A2936	G2866	Y2801	D2735	S2653	L2520
LEU	LEU	LEU	F3167	G3014	GLN	G3014	H2937	M2867	ARG	K2736	Q2654	L2520
LEU	PHE	TYR	H3174	R3015	PRO	R3015	Q2927	P2868	THR	E2658	E2658	L2525
LEU	LEU	PRO	V3168	R3016	PRO	R3016	Y2939	L2870	ARG	Q2740	Q2659	L2525
ALA	ILE	LEU	A3169	D3025	G3089	D3025	Y2939	L2870	ARG	W2741	E2661	E2559
ASN	THR	LEU	F3170	A3026	V3090	A3026	F2943	L2870	ARG	I2742	L2661	H2540
THR	THR	ILE	L3171	T3091	T3091	T3091	D2944	Y2874	ASP	I2743	F2662	L2548
THR	THR	ILE	H3177	S3028	S3028	S3028	D2944	D2875	GLN	I2743	K2663	L2548
LEU	PHE	LEU	R3176	I3029	I3029	I3029	T2876	T2876	THR	E2744	L2664	L2548
LEU	VAL	VAL	H3177	V3030	V3030	V3030	T2877	T2877	SER	E2745	L2644	L2548
LEU	ASP	ASP	R3177	N3031	N3031	N3031	T2878	T2878	GLN	I2746	P2687	H2550
LEU	MET	TYR	N3179	G3032	G3032	G3032	S2947	S2947	VAL	I2747	G2674	Q2565
LEU	LEU	ASN	Y3184	L3033	L3033	L3033	R2948	R2948	SER	I2747	A2675	Q2565
LEU	LEU	ASN	K3187	H3035	H3035	H3035	G2949	G2949	VAL	S2748	L2676	R2566
LEU	LEU	ASP	S3188	L3036	L3036	L3036	K2950	K2950	ASP	D2749	P2677	D2567
LEU	LEU	LEU	S3189	L3040	L3040	L3040	K2951	K2951	ASP	S2750	S2682	S2568
LEU	LEU	PRO	R3190	R3043	R3043	R3043	E2952	E2952	ALA	K2752	E2682	E2570
LEU	LEU	ASN	R3191	T3044	T3044	T3044	F2955	F2955	ALA	I2753	S2683	V2571
LEU	LEU	ASN	R3192	M3046	M3046	M3046	Y2956	Y2956	HIS	Q2754	N2684	R2581
LEU	LEU	ALA	A3193	V3047	V3047	V3047	I2960	I2960	VAL	Q2754	Y2685	R2581
LEU	LEU	ALA	A3194	K3048	K3048	K3048	V2966	V2966	SER	P2755	M2688	M2584
LEU	LEU	ALA	L3197	G3049	G3049	G3049	L2967	L2967	VAL	L2756	M2689	L2589
LEU	LEU	LEU	F3198	S3050	S3050	S3050	L2968	L2968	ASP	K2758	M2689	L2589
LEU	LEU	PHE	R3200	E3052	E3052	E3052	F2969	F2969	ASP	P2759	E2690	L2590
LEU	LEU	GLY	H3272	S3053	S3053	S3053	L2970	L2970	ASP	K2759	E2690	L2590
LEU	LEU	ASP	M3273	K3054	K3054	K3054	I2971	I2971	ASP	L2762	E2690	L2590
LEU	LEU	VAL	L3276	L3057	L3057	L3057	H2978	H2978	ASP	L2763	M2685	M2605
LEU	LEU	VAL	D3203	R3058	R3058	R3058	L2983	L2983	ASP	L2763	S2685	M2605
LEU	LEU	VAL	V3204	S3058	S3058	S3058	A2985	A2985	ASP	S2766	S2685	M2605
LEU	LEU	VAL							ASP	E2765	M2685	P2606
LEU	LEU	VAL							ASP	K2767	M2685	P2606
LEU	LEU	VAL							ASP	K2768	M2685	P2606
LEU	LEU	VAL							ASP	E2767	M2685	P2606
LEU	LEU	VAL							ASP	K2768	M2685	P2606
LEU	LEU	VAL							ASP	E2768	M2685	P2606
LEU	LEU	VAL							ASP	K2769	M2685	P2606
LEU	LEU	VAL							ASP	E2769	M2685	P2606
LEU	LEU	VAL							ASP	K2770	M2685	P2606
LEU	LEU	VAL							ASP	E2770	M2685	P2606
LEU	LEU	VAL							ASP	K2771	M2685	P2606

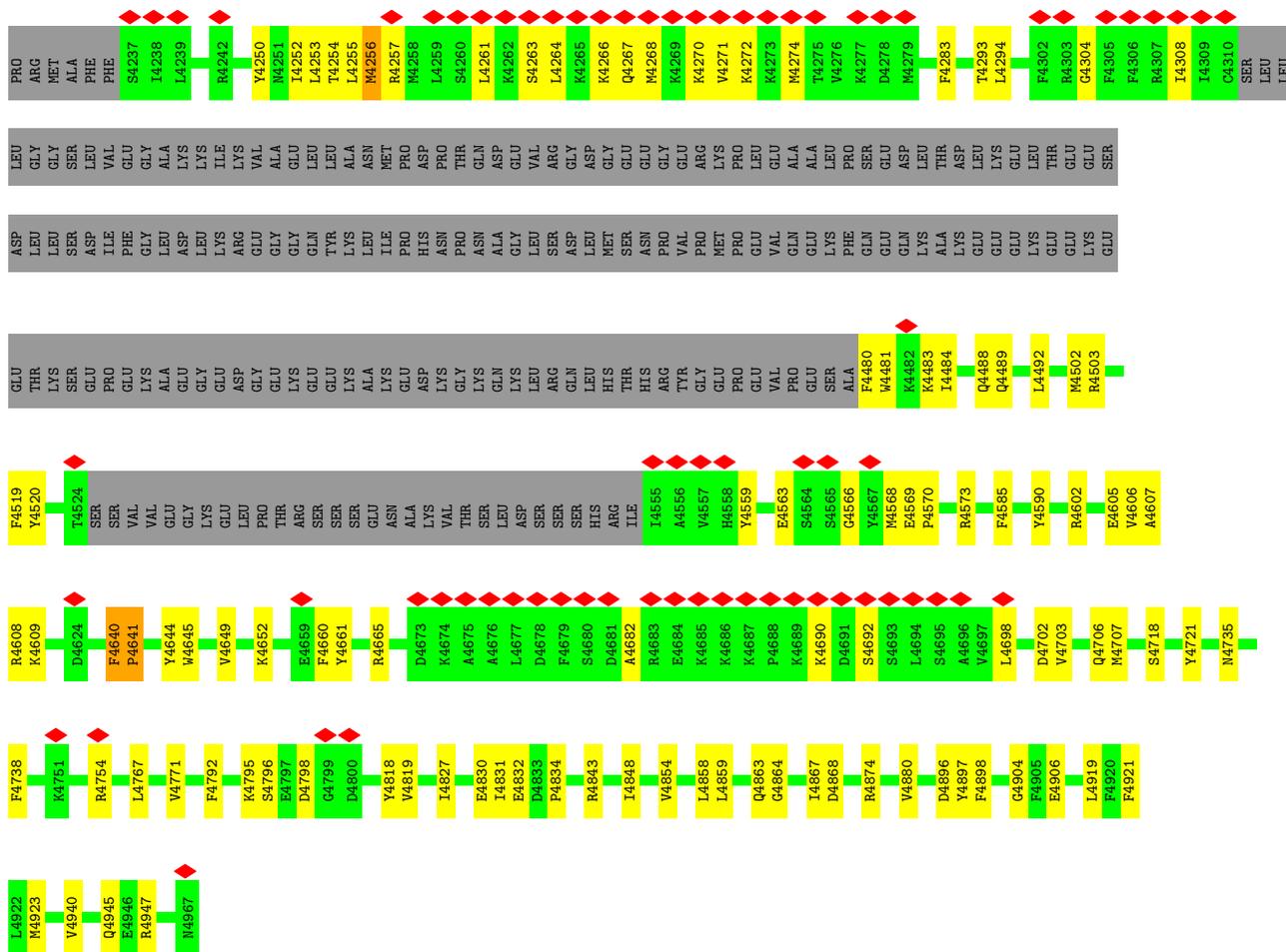


● Molecule 1: Ryanodine receptor 2









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



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



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



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

Chain H:  66% 32% ..



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C4	Depositor
Number of particles used	191898	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	58	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	1200	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.628	Depositor
Minimum map value	-0.021	Depositor
Average map value	0.008	Depositor
Map value standard deviation	0.027	Depositor
Recommended contour level	0.12	Depositor
Map size (Å)	424.96, 424.96, 424.96	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.83, 0.83, 0.83	Depositor

## 5 Model quality i

### 5.1 Standard geometry i

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

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

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

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

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

There are no bond length outliers.

All (28) bond angle outliers are listed below:

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

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

There are no chirality outliers.

All (12) planarity outliers are listed below:

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

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

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	33771	0	33455	795	0
1	B	33771	0	33455	785	0
1	C	33771	0	33455	791	0
1	D	33771	0	33455	789	0
2	E	818	0	821	25	0
2	F	818	0	821	22	0
2	G	818	0	821	23	0
2	H	818	0	821	25	0
3	A	1	0	0	0	0
3	B	1	0	0	0	0
3	C	1	0	0	0	0
3	D	1	0	0	0	0
4	A	62	0	24	0	0
4	B	62	0	24	0	0
4	C	62	0	24	0	0
4	D	62	0	24	0	0
All	All	138608	0	137200	3181	0

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

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

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	4198/4967 (84%)	4080 (97%)	115 (3%)	3 (0%)	48	79
1	B	4198/4967 (84%)	4081 (97%)	114 (3%)	3 (0%)	48	79
1	C	4198/4967 (84%)	4082 (97%)	113 (3%)	3 (0%)	48	79
1	D	4198/4967 (84%)	4081 (97%)	114 (3%)	3 (0%)	48	79
2	E	105/108 (97%)	100 (95%)	5 (5%)	0	100	100
2	F	105/108 (97%)	100 (95%)	5 (5%)	0	100	100
2	G	105/108 (97%)	100 (95%)	5 (5%)	0	100	100
2	H	105/108 (97%)	100 (95%)	5 (5%)	0	100	100
All	All	17212/20300 (85%)	16724 (97%)	476 (3%)	12 (0%)	50	79

All (12) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	3927	PRO
1	A	4641	PRO
1	B	3927	PRO
1	B	4641	PRO
1	C	3927	PRO
1	C	4641	PRO
1	D	3927	PRO
1	D	4641	PRO
1	A	2770	ILE
1	B	2770	ILE
1	C	2770	ILE
1	D	2770	ILE

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

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	3708/4358 (85%)	3689 (100%)	19 (0%)	86	94
1	B	3708/4358 (85%)	3689 (100%)	19 (0%)	86	94
1	C	3708/4358 (85%)	3689 (100%)	19 (0%)	86	94
1	D	3708/4358 (85%)	3689 (100%)	19 (0%)	86	94
2	E	88/89 (99%)	87 (99%)	1 (1%)	70	86
2	F	88/89 (99%)	87 (99%)	1 (1%)	70	86
2	G	88/89 (99%)	87 (99%)	1 (1%)	70	86
2	H	88/89 (99%)	87 (99%)	1 (1%)	70	86
All	All	15184/17788 (85%)	15104 (100%)	80 (0%)	85	94

All (80) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	198	ASN
1	A	344	LYS

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

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

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (124) such sidechains are listed below:

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	150	GLN
1	A	163	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	261	HIS
1	A	477	ASN
1	A	836	HIS
1	A	1014	GLN
1	A	1026	ASN
1	A	1046	ASN
1	A	1069	GLN
1	A	1126	GLN
1	A	1151	HIS
1	A	1501	ASN
1	A	1593	HIS
1	A	1691	ASN
1	A	1917	GLN
1	A	1970	GLN
1	A	2565	GLN
1	A	2654	GLN
1	A	2659	GLN
1	A	2729	HIS
1	A	2830	ASN
1	A	2937	HIS
1	A	2978	HIS
1	A	3256	ASN
1	A	3770	ASN
1	A	3775	GLN
1	A	3933	GLN
1	A	3975	GLN
1	A	4178	ASN
1	A	4251	ASN
1	A	4489	GLN
1	A	4879	GLN
2	E	66	GLN
2	F	66	GLN
2	G	66	GLN
2	H	66	GLN
1	B	150	GLN
1	B	163	HIS
1	B	198	ASN
1	B	261	HIS
1	B	477	ASN
1	B	544	ASN
1	B	836	HIS
1	B	1046	ASN

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

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

### 5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

## 5.6 Ligand geometry [i](#)

Of 12 ligands modelled in this entry, 4 are monoatomic - leaving 8 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
4	ATP	C	5002	-	28,33,33	0.63	0	34,52,52	0.61	1 (2%)
4	ATP	A	5003	-	28,33,33	0.64	0	34,52,52	0.58	1 (2%)
4	ATP	A	5002	-	28,33,33	0.62	0	34,52,52	0.59	1 (2%)
4	ATP	C	5003	-	28,33,33	0.64	0	34,52,52	0.58	1 (2%)
4	ATP	B	5002	-	28,33,33	0.62	0	34,52,52	0.60	1 (2%)
4	ATP	B	5003	-	28,33,33	0.64	0	34,52,52	0.58	1 (2%)
4	ATP	D	5002	-	28,33,33	0.63	0	34,52,52	0.60	1 (2%)
4	ATP	D	5003	-	28,33,33	0.64	0	34,52,52	0.58	1 (2%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	ATP	C	5002	-	-	6/18/38/38	0/3/3/3
4	ATP	A	5003	-	-	7/18/38/38	0/3/3/3
4	ATP	A	5002	-	-	6/18/38/38	0/3/3/3
4	ATP	C	5003	-	-	7/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	ATP	B	5002	-	-	6/18/38/38	0/3/3/3
4	ATP	B	5003	-	-	7/18/38/38	0/3/3/3
4	ATP	D	5002	-	-	6/18/38/38	0/3/3/3
4	ATP	D	5003	-	-	7/18/38/38	0/3/3/3

There are no bond length outliers.

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	C	5002	ATP	C5-C6-N6	2.35	123.89	120.31
4	A	5003	ATP	C5-C6-N6	2.34	123.87	120.31
4	D	5003	ATP	C5-C6-N6	2.33	123.86	120.31
4	B	5003	ATP	C5-C6-N6	2.32	123.84	120.31
4	C	5003	ATP	C5-C6-N6	2.32	123.84	120.31
4	D	5002	ATP	C5-C6-N6	2.30	123.81	120.31
4	B	5002	ATP	C5-C6-N6	2.30	123.81	120.31
4	A	5002	ATP	C5-C6-N6	2.28	123.78	120.31

There are no chirality outliers.

All (52) torsion outliers are listed below:

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

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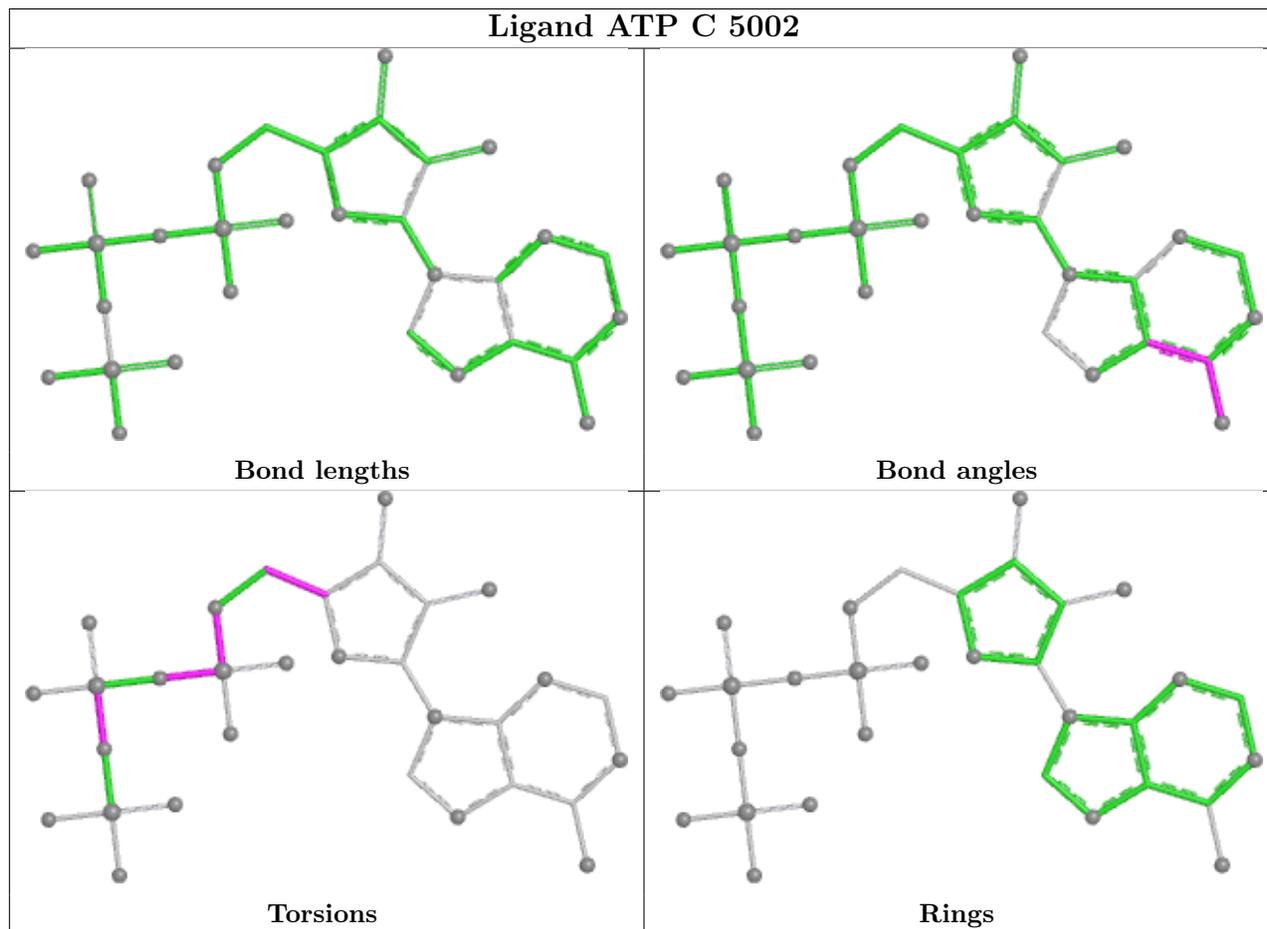
Mol	Chain	Res	Type	Atoms
4	C	5003	ATP	C5'-O5'-PA-O2A
4	C	5003	ATP	C5'-O5'-PA-O3A
4	C	5003	ATP	O4'-C4'-C5'-O5'
4	D	5002	ATP	C5'-O5'-PA-O1A
4	D	5002	ATP	C5'-O5'-PA-O3A
4	D	5003	ATP	PB-O3B-PG-O3G
4	D	5003	ATP	C5'-O5'-PA-O1A
4	D	5003	ATP	C5'-O5'-PA-O2A
4	D	5003	ATP	C5'-O5'-PA-O3A
4	D	5003	ATP	O4'-C4'-C5'-O5'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

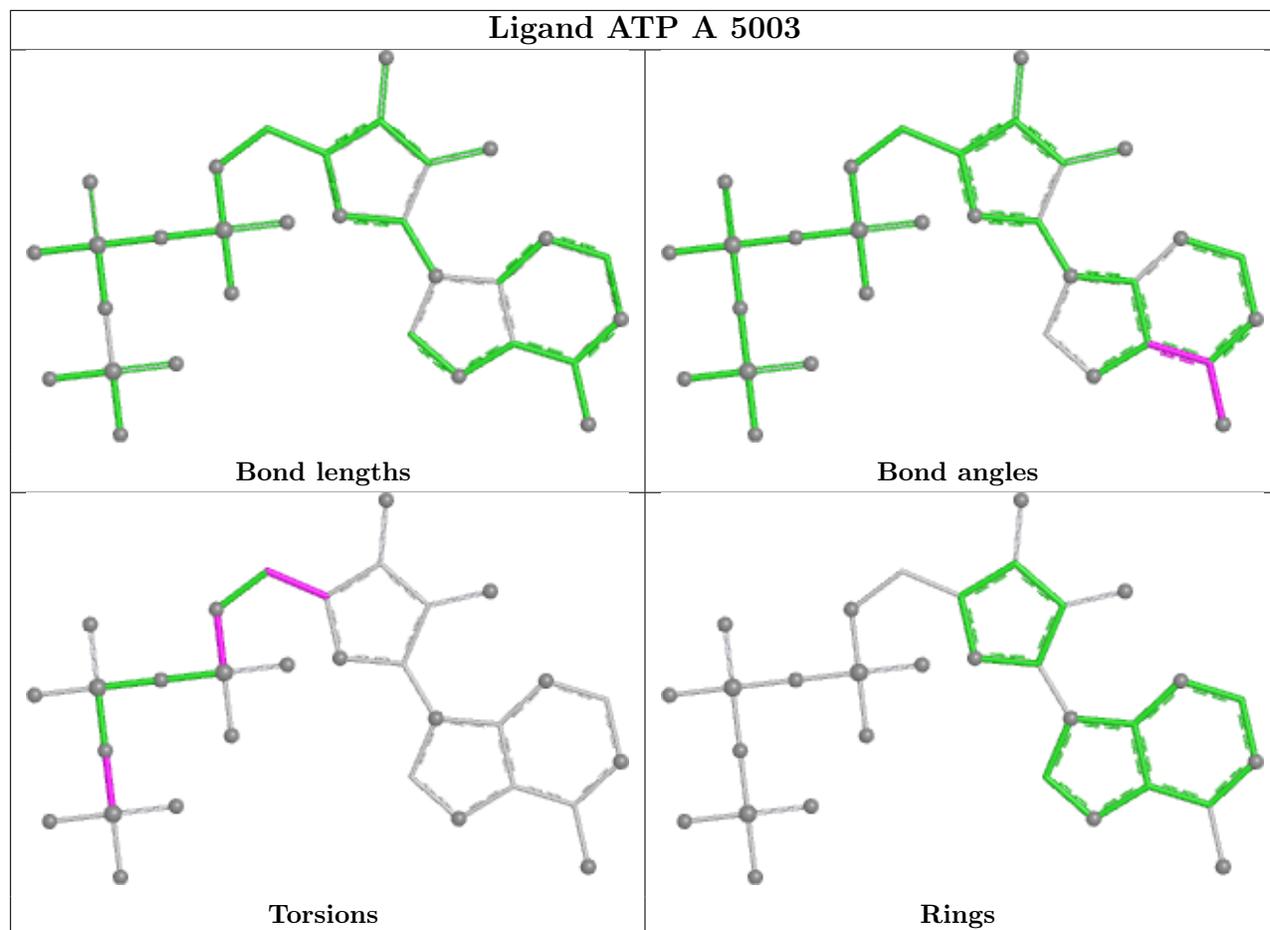
There are no ring outliers.

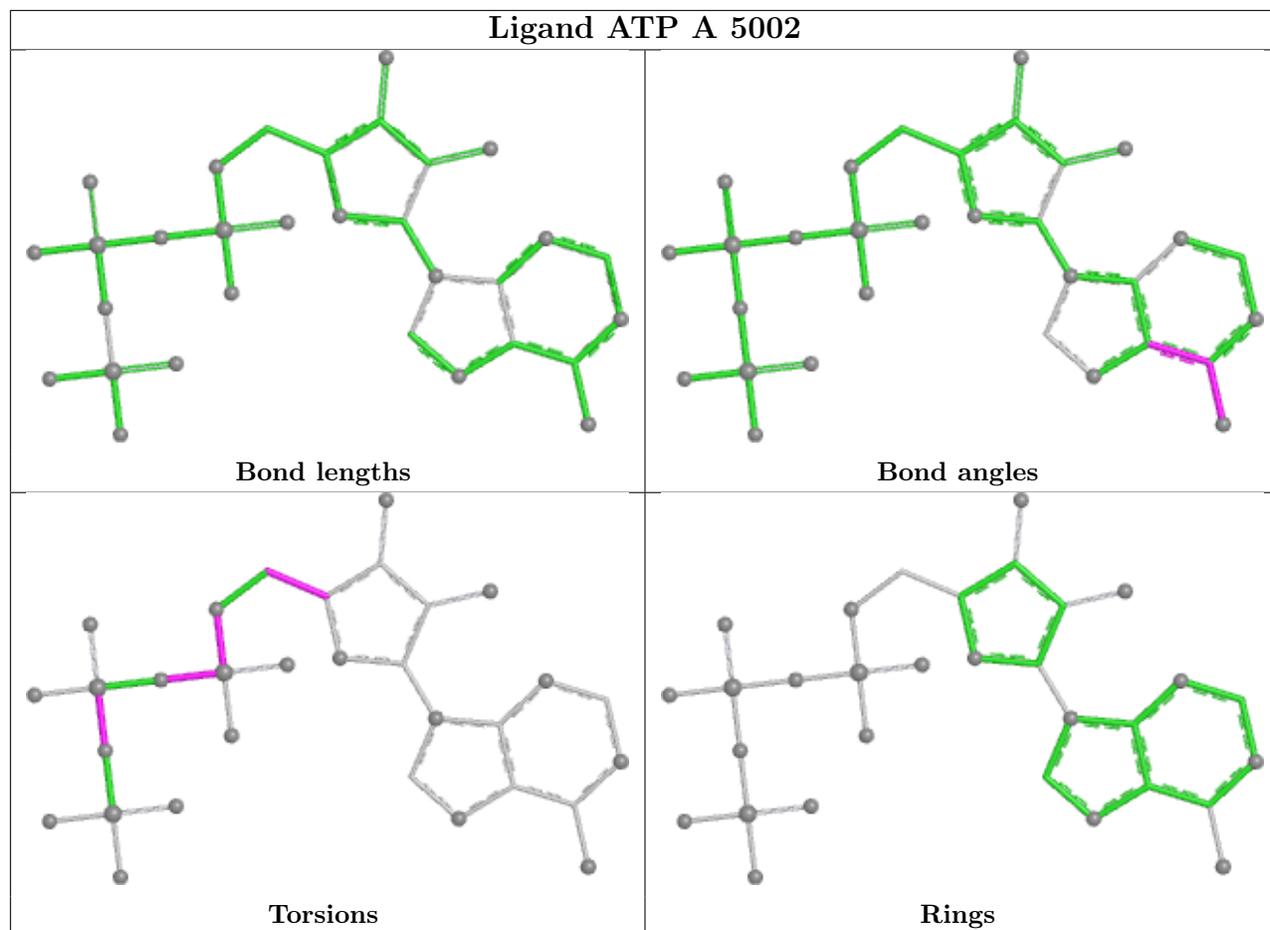
No monomer is involved in short contacts.

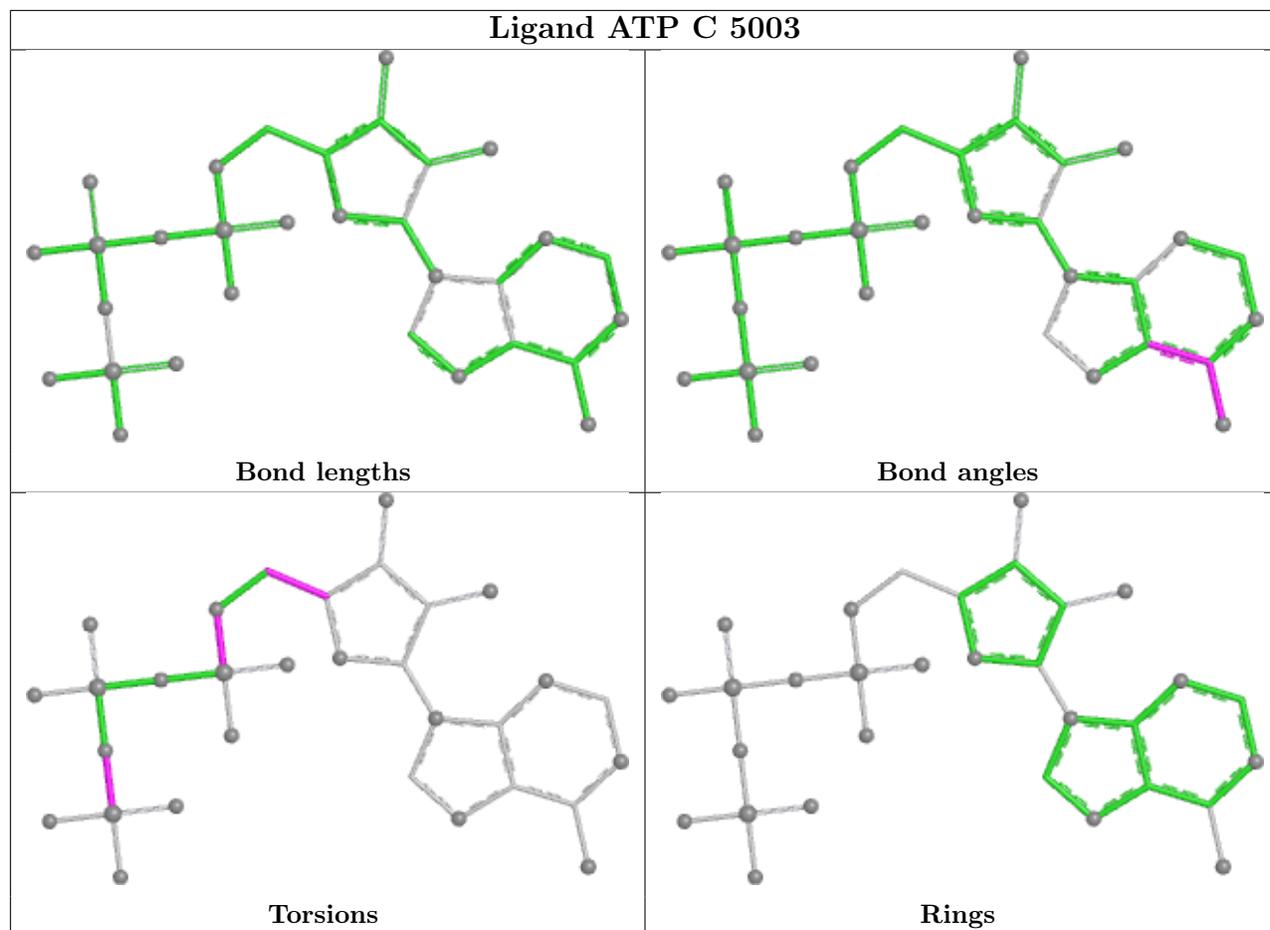
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier.

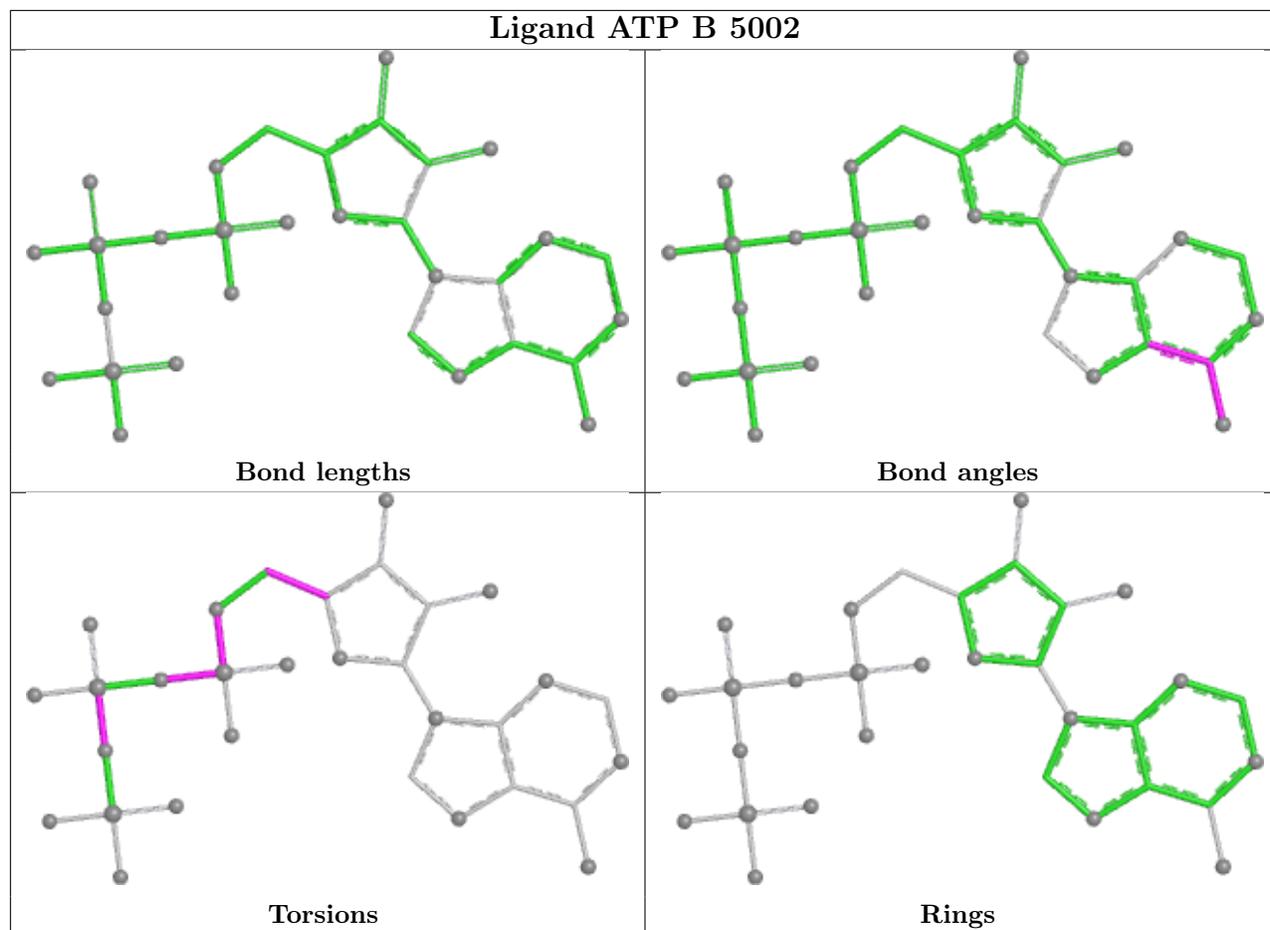
Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

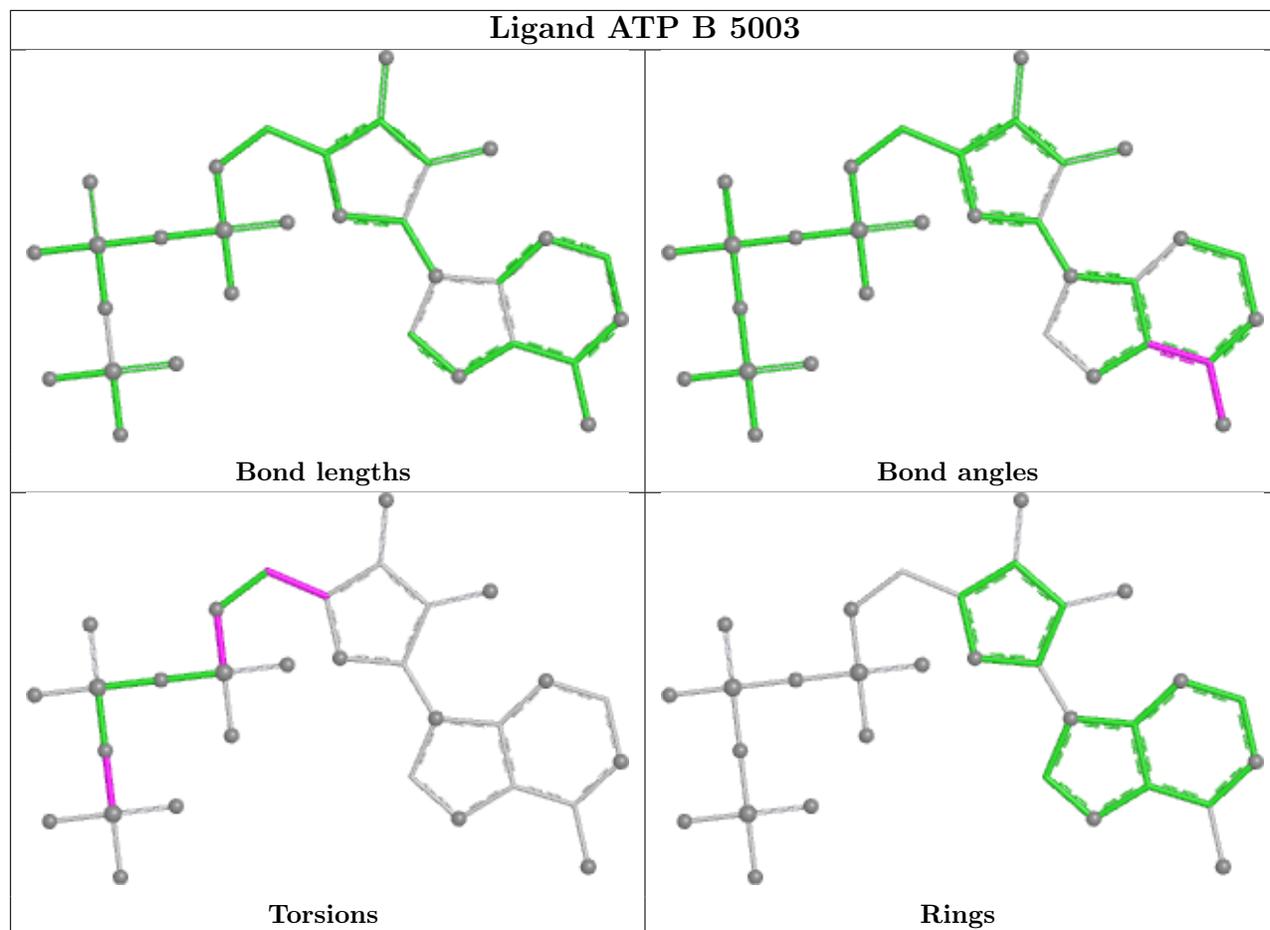


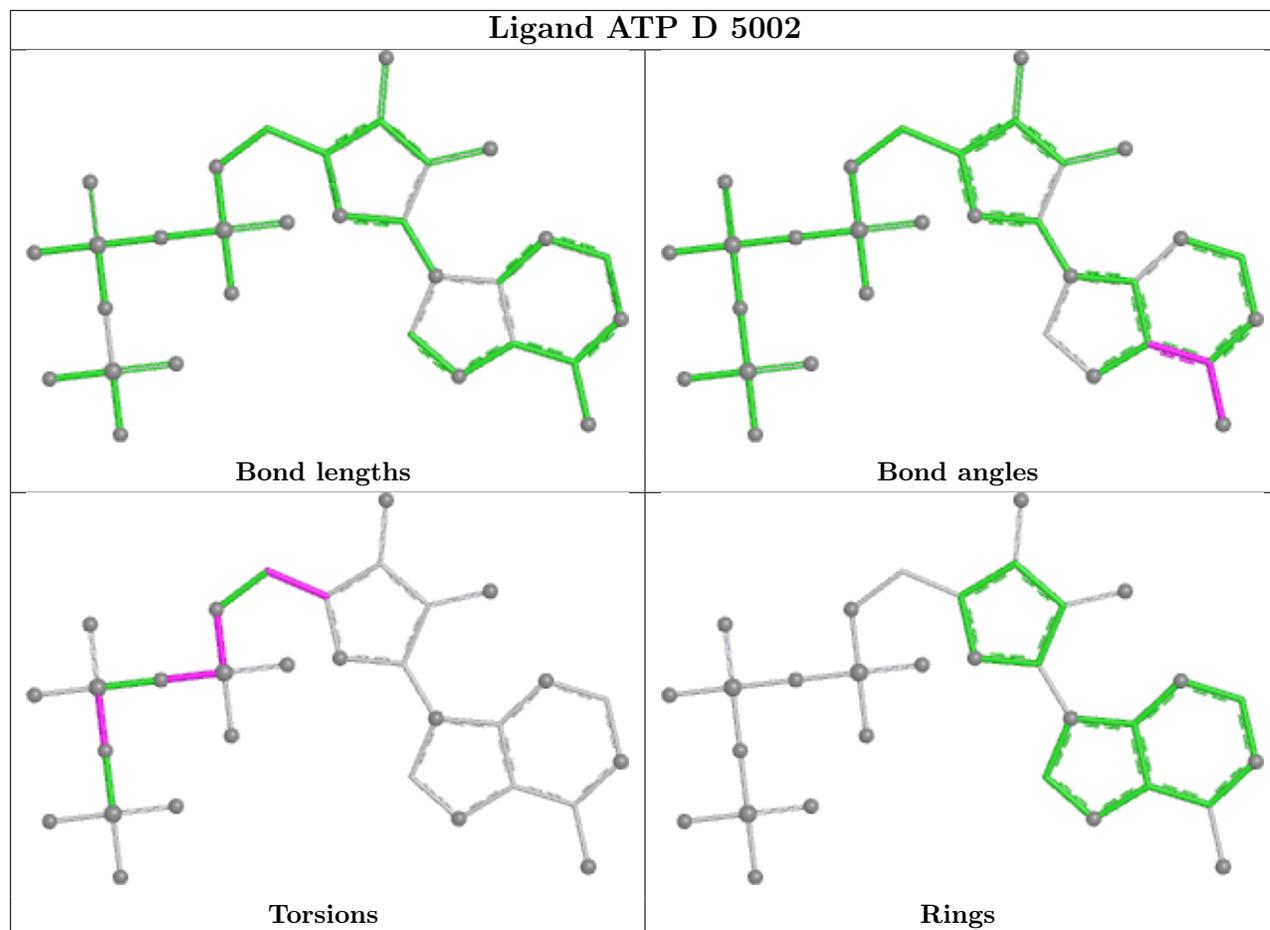


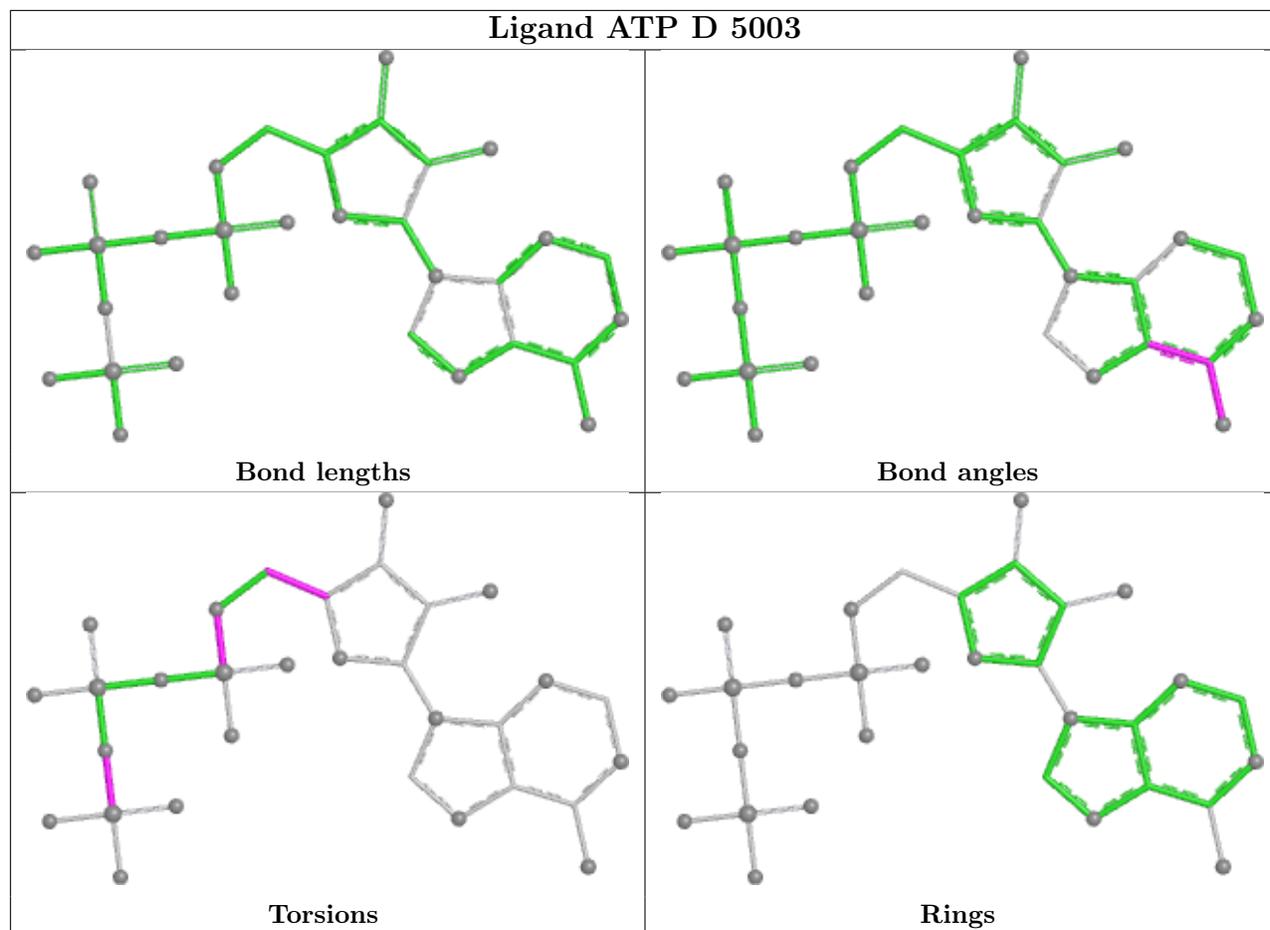












## 5.7 Other polymers [i](#)

There are no such residues in this entry.

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

There are no chain breaks in this entry.

## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-42458. These allow visual inspection of the internal detail of the map and identification of artifacts.

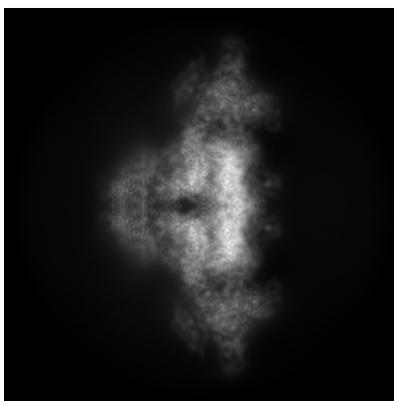
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

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

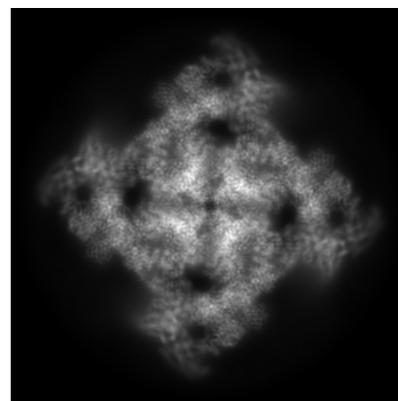
#### 6.1.1 Primary map



X



Y



Z

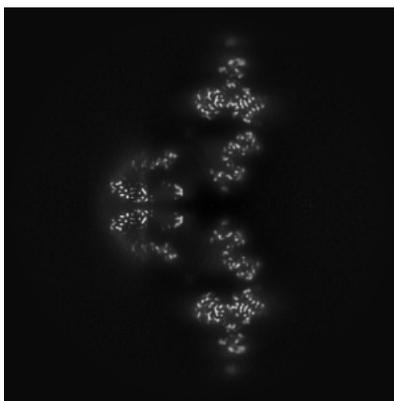
The images above show the map projected in three orthogonal directions.

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

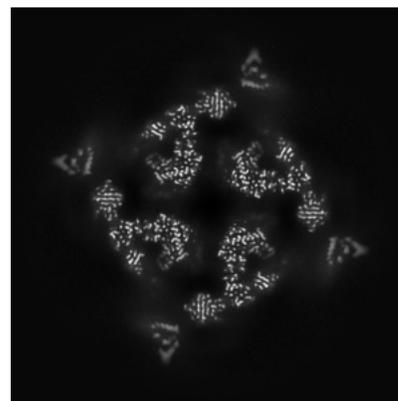
#### 6.2.1 Primary map



X Index: 256



Y Index: 256

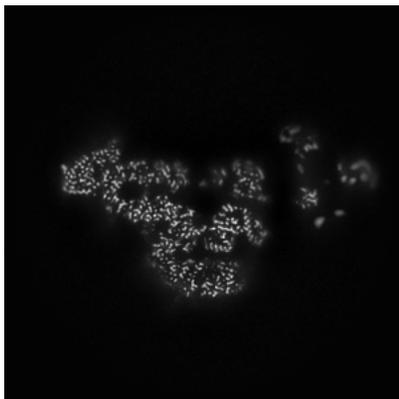


Z Index: 256

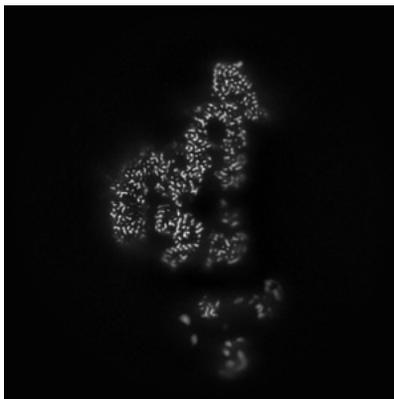
The images above show central slices of the map in three orthogonal directions.

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

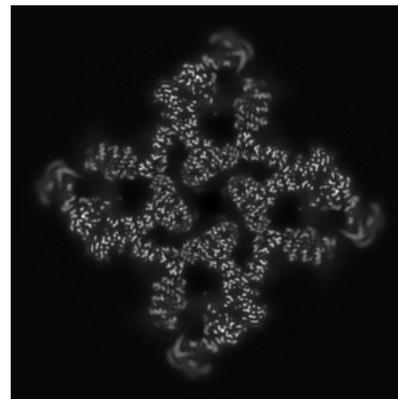
### 6.3.1 Primary map



X Index: 279



Y Index: 279

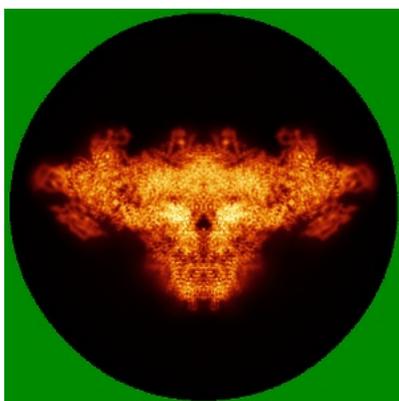


Z Index: 290

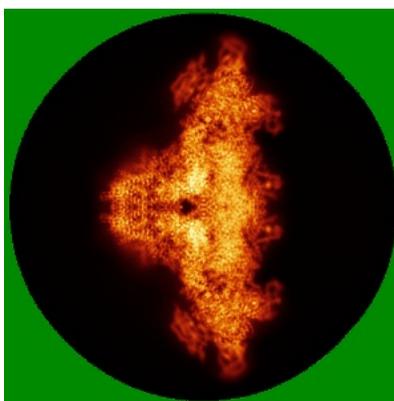
The images above show the largest variance slices of the map in three orthogonal directions.

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

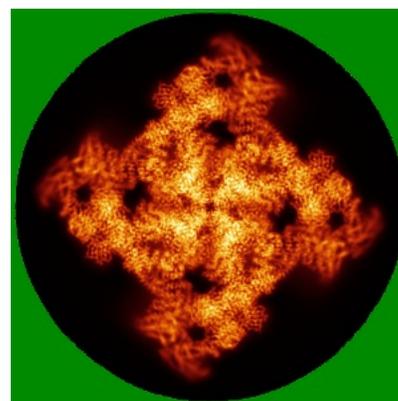
### 6.4.1 Primary map



X



Y

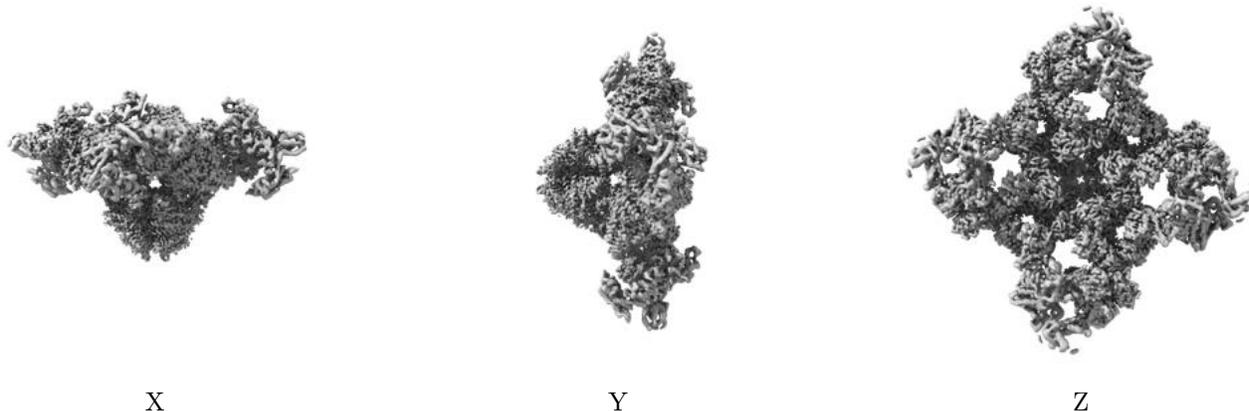


Z

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

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

### 6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.12. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

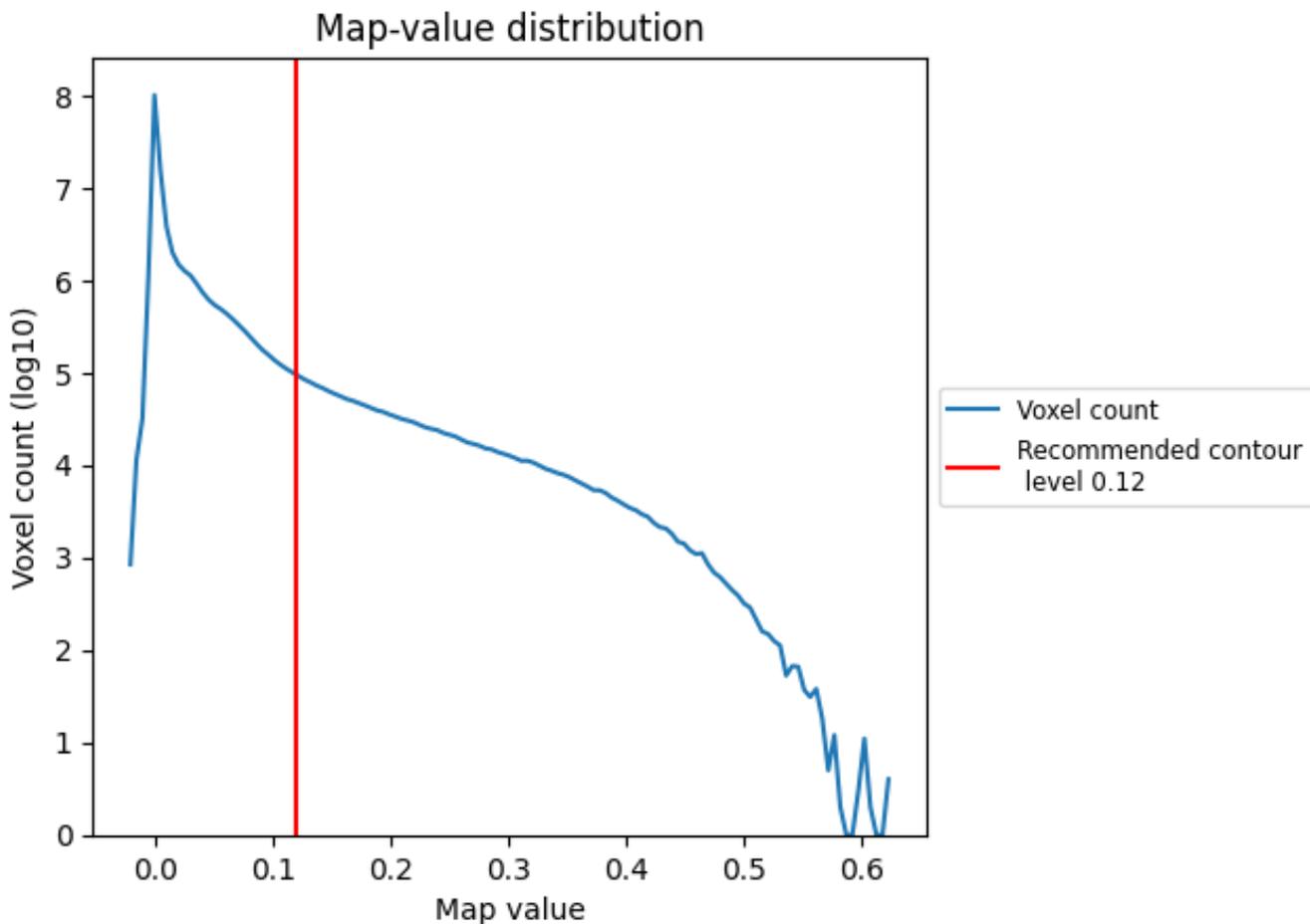
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

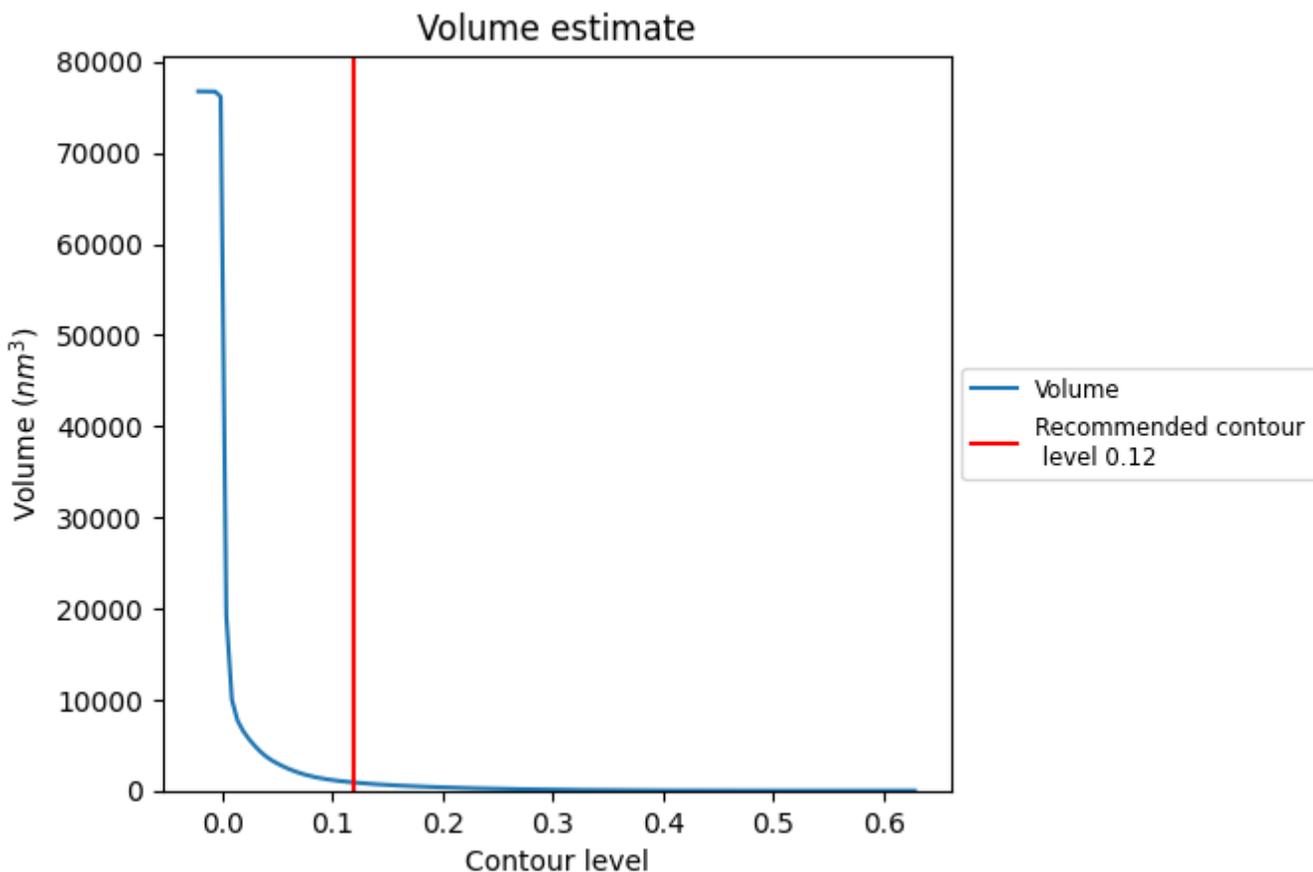
This section contains the results of statistical analysis of the map.

### 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.

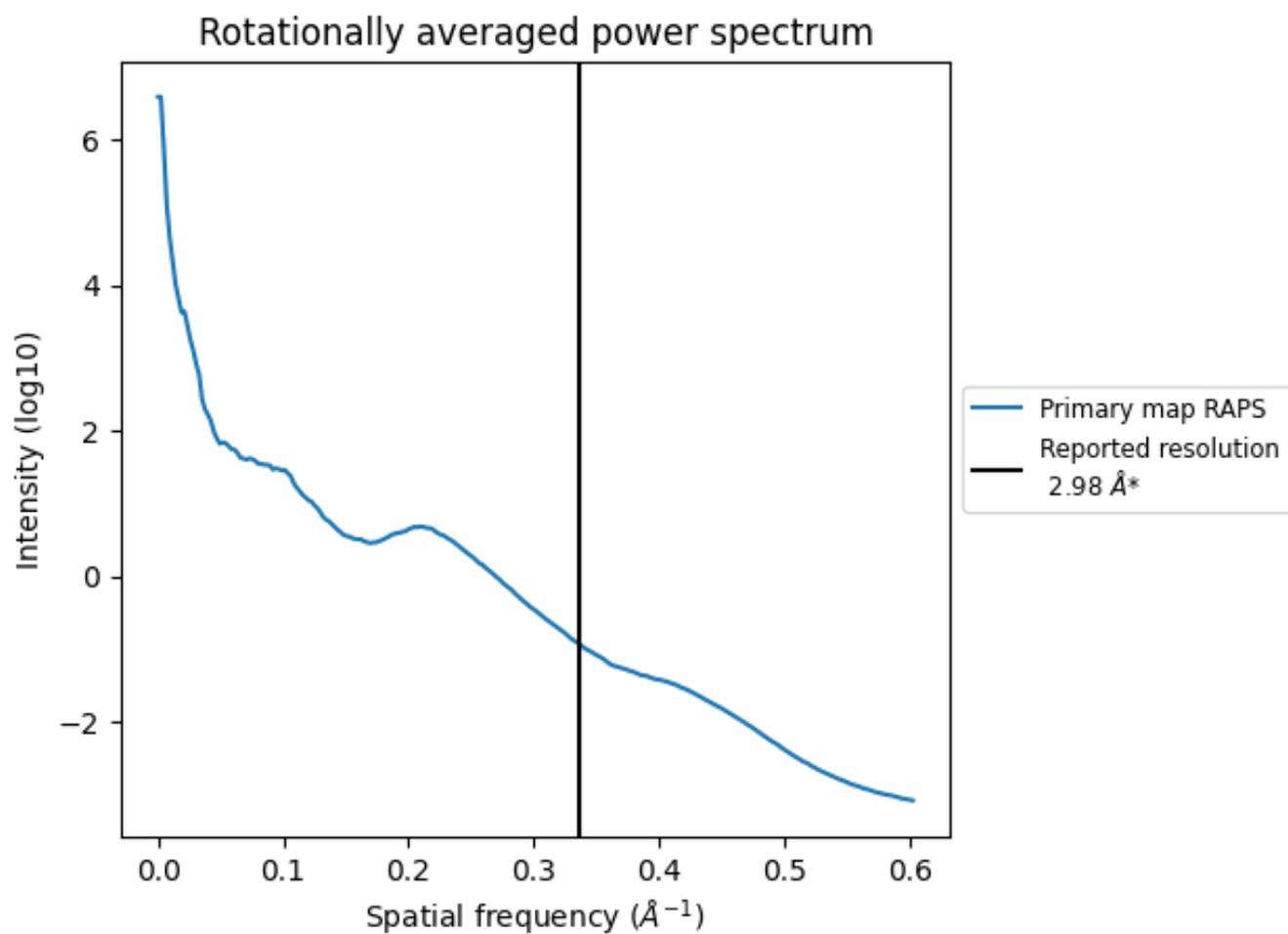
## 7.2 Volume estimate [i](#)



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

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

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



\*Reported resolution corresponds to spatial frequency of 0.336 Å<sup>-1</sup>

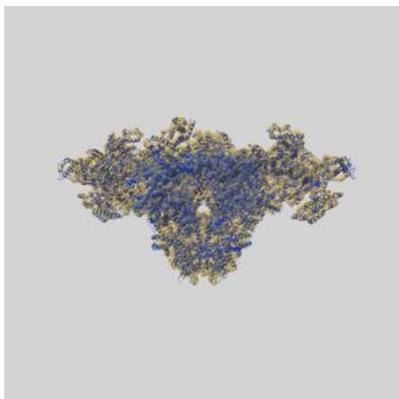
## 8 Fourier-Shell correlation

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

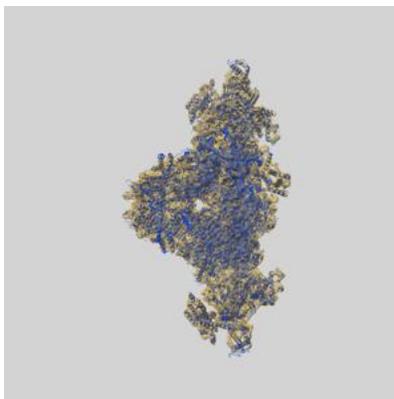
## 9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-42458 and PDB model 8UQ2. Per-residue inclusion information can be found in section 3 on page 6.

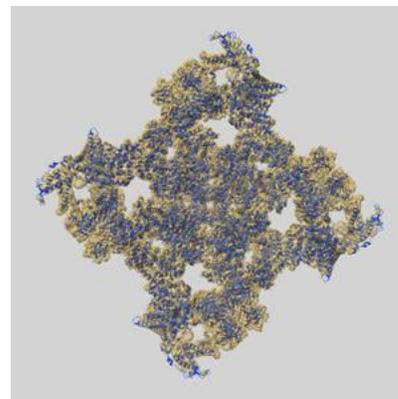
### 9.1 Map-model overlay [i](#)



X



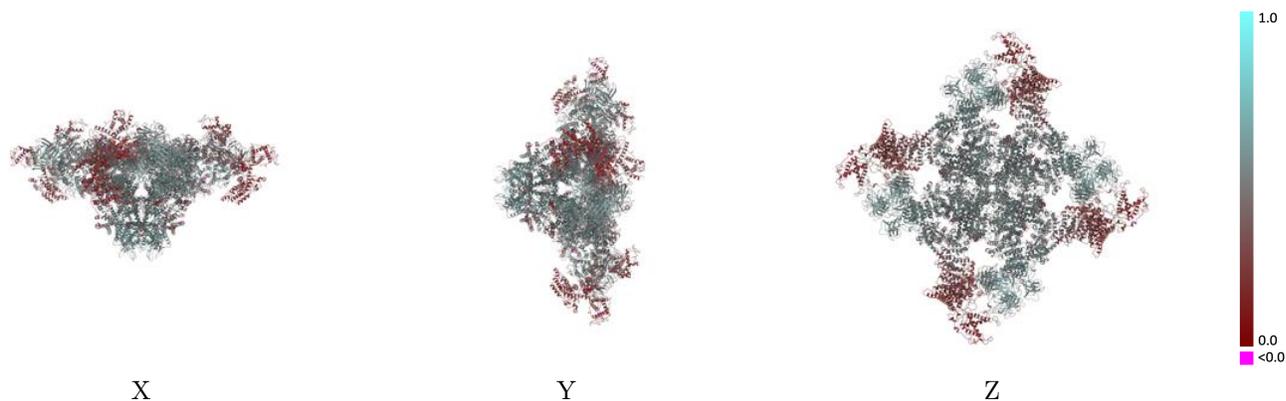
Y



Z

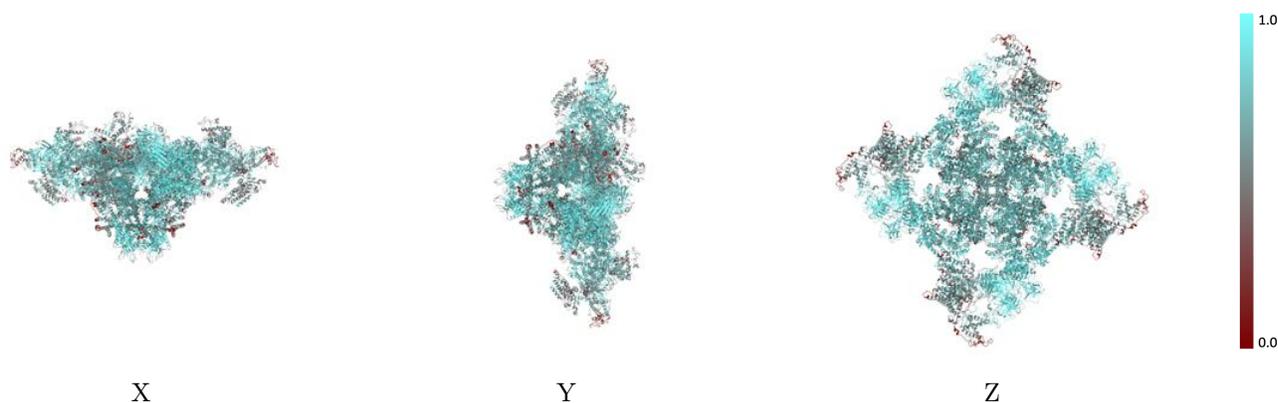
The images above show the 3D surface view of the map at the recommended contour level 0.12 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



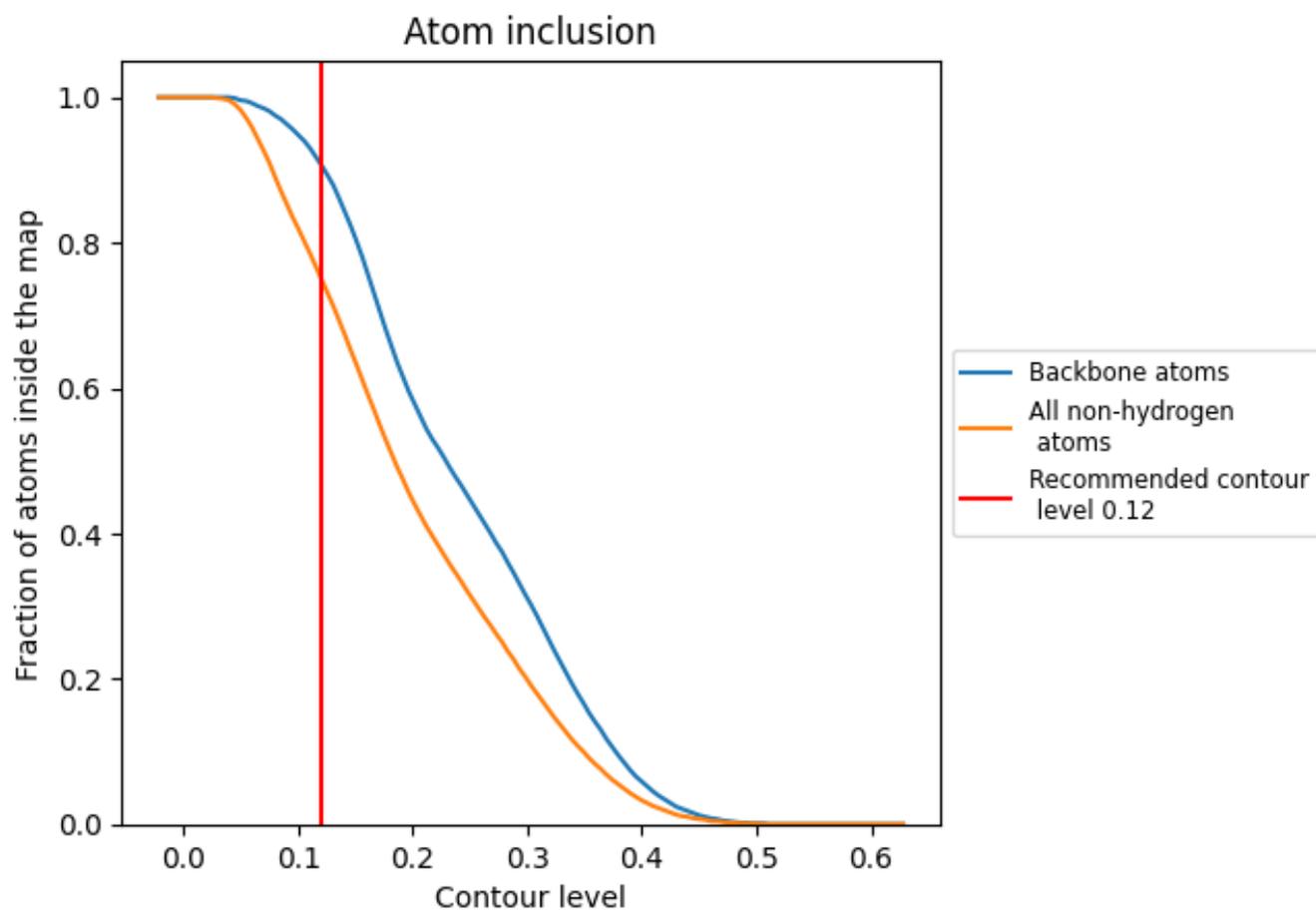
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.12).

## 9.4 Atom inclusion [i](#)



At the recommended contour level, 91% of all backbone atoms, 75% of all non-hydrogen atoms, are inside the map.

## 9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.12) and Q-score for the entire model and for each chain.

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

