



Full wwPDB EM Validation Report ⓘ

Oct 7, 2024 – 04:58 AM EDT

PDB ID : 8UXL
EMDB ID : EMD-42768
Title : Structure of PKA phosphorylated human RyR2-R420W in the primed state
in the presence of calcium and calmodulin
Authors : Miotto, M.C.; Marks, A.R.
Deposited on : 2023-11-09
Resolution : 3.12 Å(reported)
Based on initial model : 7UA5

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

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

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev113
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4.02b-467
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) : 2.39

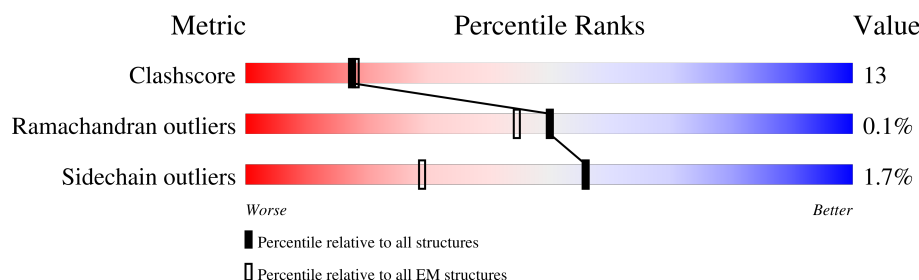
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.12 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 ≥ 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	<div> <div>7%</div> <div>63%</div> <div>21%</div> <div>•</div> <div>15%</div> </div>
1	B	4967	<div> <div>7%</div> <div>63%</div> <div>21%</div> <div>•</div> <div>15%</div> </div>
1	C	4967	<div> <div>7%</div> <div>64%</div> <div>21%</div> <div>•</div> <div>15%</div> </div>
1	D	4967	<div> <div>7%</div> <div>63%</div> <div>21%</div> <div>•</div> <div>15%</div> </div>
2	E	108	<div> <div>76%</div> <div>21%</div> <div>••</div> </div>
2	F	108	<div> <div>78%</div> <div>19%</div> <div>••</div> </div>
2	G	108	<div> <div>78%</div> <div>19%</div> <div>••</div> </div>
2	H	108	<div> <div>75%</div> <div>22%</div> <div>••</div> </div>

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Mol	Chain	Length	Quality of chain
3	I	149	<div><div></div><div>59%32%5%</div></div>
3	J	149	<div><div></div><div>56%34%6%</div></div>
3	K	149	<div><div></div><div>57%34%5%</div></div>
3	L	149	<div><div></div><div>56%34%5%</div></div>

2 Entry composition [i](#)

There are 6 unique types of molecules in this entry. The entry contains 143500 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Ryanodine receptor 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	4232	Total	C	N	O	S	2	0
			33858	21578	5766	6284	230		
1	B	4232	Total	C	N	O	S	2	0
			33858	21578	5766	6284	230		
1	C	4232	Total	C	N	O	S	2	0
			33858	21578	5766	6284	230		
1	D	4232	Total	C	N	O	S	2	0
			33858	21578	5766	6284	230		

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	420	TRP	ARG	variant	UNP Q92736
B	420	TRP	ARG	variant	UNP Q92736
C	420	TRP	ARG	variant	UNP Q92736
D	420	TRP	ARG	variant	UNP Q92736

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

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

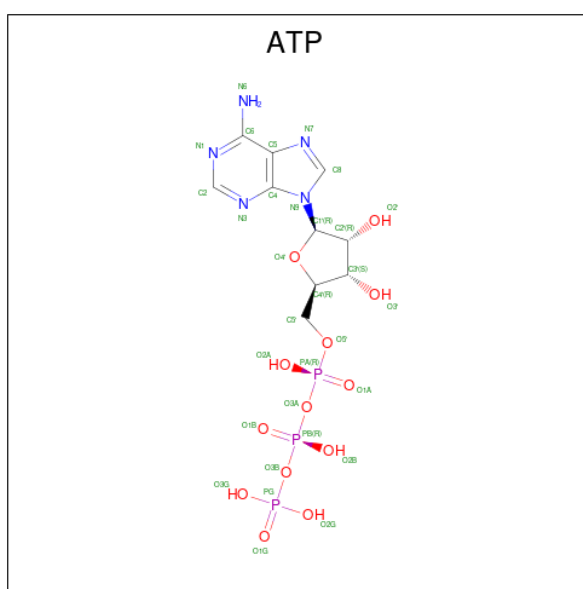
- Molecule 3 is a protein called Calmodulin-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	I	143	Total	C	N	O	S	0	0
			1131	694	182	246	9		
3	J	143	Total	C	N	O	S	0	0
			1131	694	182	246	9		
3	L	143	Total	C	N	O	S	0	0
			1131	694	182	246	9		
3	K	143	Total	C	N	O	S	0	0
			1131	694	182	246	9		

- Molecule 4 is ZINC ION (three-letter code: ZN) (formula: Zn) (labeled as "Ligand of Interest" by depositor).

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

- Molecule 5 is ADENOSINE-5'-TRIPHOSPHATE (three-letter code: ATP) (formula: C₁₀H₁₆N₅O₁₃P₃) (labeled as "Ligand of Interest" by depositor).



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

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

- Molecule 6 is CALCIUM ION (three-letter code: CA) (formula: Ca) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
6	A	1	Total	Ca	0
			1	1	
6	I	4	Total	Ca	0
			4	4	
6	B	1	Total	Ca	0
			1	1	
6	C	1	Total	Ca	0
			1	1	
6	D	1	Total	Ca	0
			1	1	
6	J	4	Total	Ca	0
			4	4	
6	L	4	Total	Ca	0
			4	4	
6	K	4	Total	Ca	0
			4	4	

3 Residue-property plots

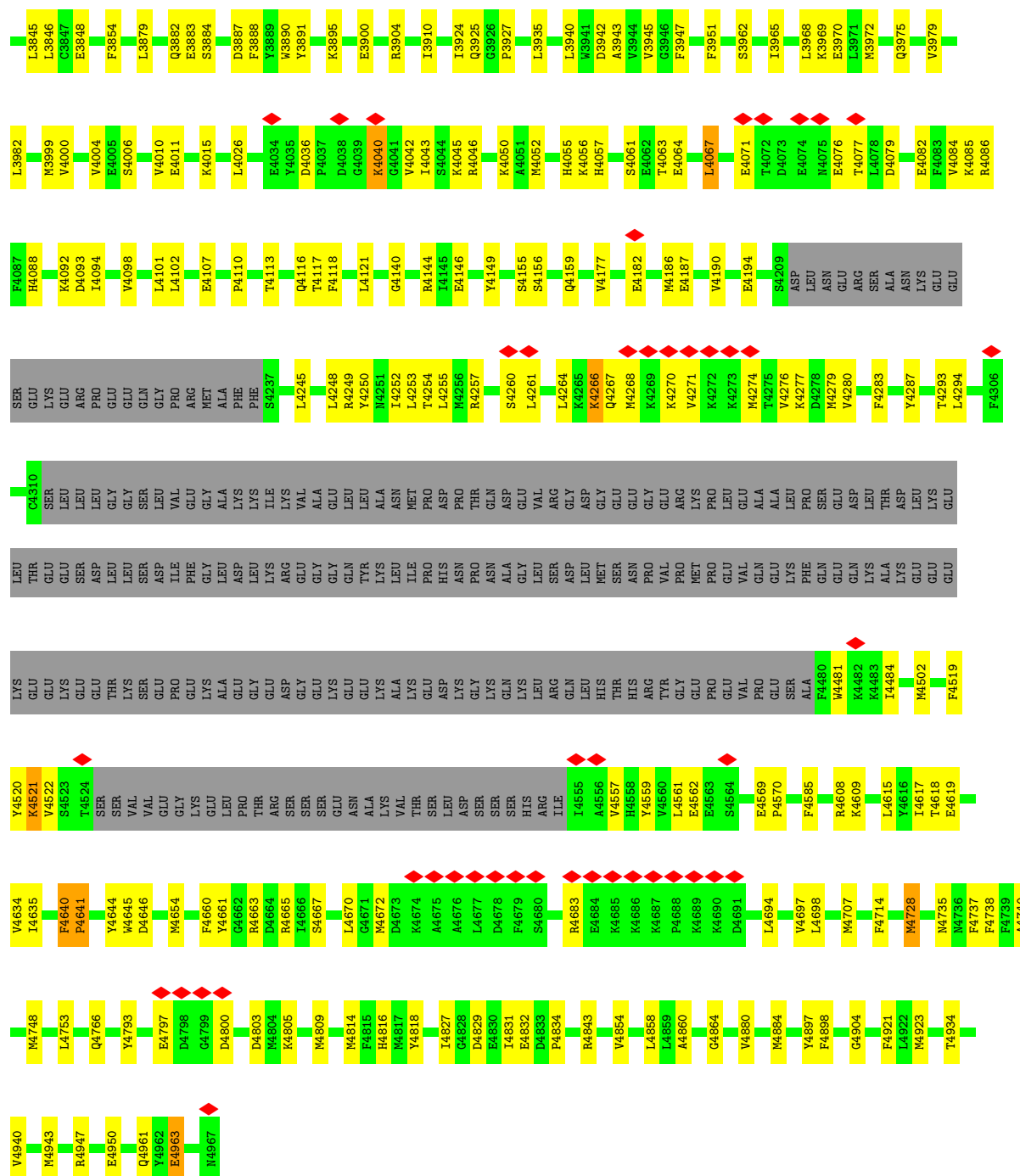
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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





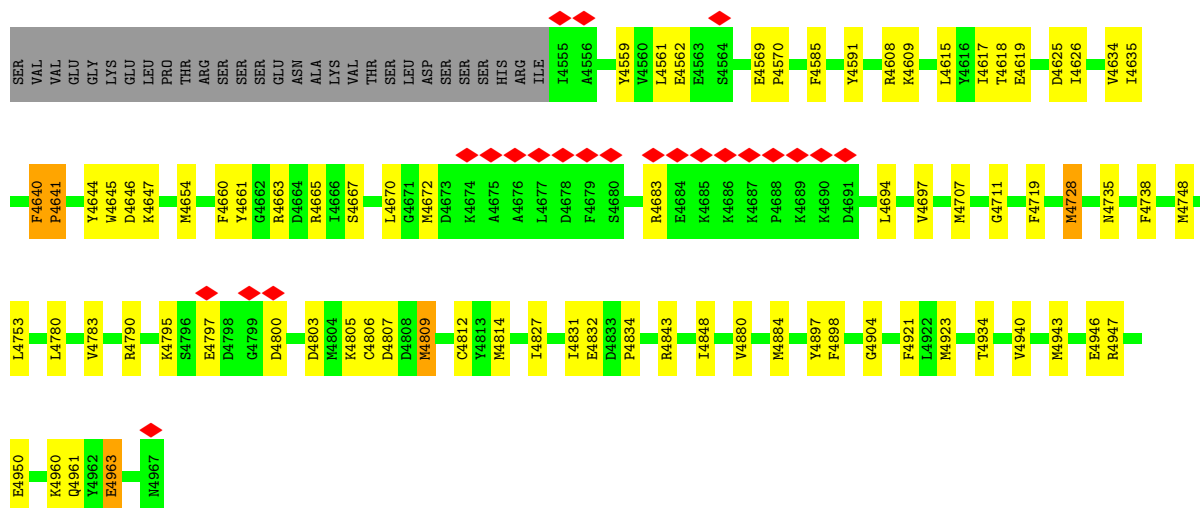
L3887	L3697	S3698	C3699	H3700	D3701	E3702	GLU	ASP	ASP	ASP	GLY	GLU	GLU	E3710	V3711	K3712	S3713	K3717	E3718	Q3722	A3729	R3730	H3732	V3787	Q3791	L3796	L3803	L3805	F3808	L3817	G3818	H3819	V3820	E3822	G3824	S3825	G3826	E3827	K3828	V3829	L3830	D3833	E3834	F3835											
LYS	SER	ARG	ARG	VAL	GLY	ARG	SER	ASN	HIS	TYR	CYS	VAL	VAL	PRO	GLN	ARG	SER	K3563	K3584	W3587	H3588	K3589	L3590	L3591	S3592	K3596	V3600	A3601	C3602	M3605	K3639	E3650	P3651	P3652	E3653	D3654	D3655	E3656	G3657	K3658	E3659	V3660	V3661	L3664	H3665	Q3666	L3667	I3668	E3678						
GLU	VAL	ASP	GLN	ILE	ILE	ARG	SER	ASN	ILE	ILE	HIS	GLN	GLY	LYS	GLU	ASP	PRO	ALA	ALA	K3563	W3587	H3588	K3589	L3590	L3591	S3592	K3596	V3600	A3601	C3602	M3605	K3639	E3650	P3651	P3652	E3653	D3654	D3655	E3656	G3657	K3658	E3659	V3660	V3661	L3664	H3665	Q3666	L3667	I3668	E3678					
VAL	SER	ASP	GLN	GLU	ARG	ASN	PRO	GLU	LYS	MET	VAL	GLU	THR	GLN	GLU	ASP	PRO	ALA	ALA	K3563	W3587	H3588	K3589	L3590	L3591	S3592	K3596	V3600	A3601	C3602	M3605	K3639	E3650	P3651	P3652	E3653	D3654	D3655	E3656	G3657	K3658	E3659	V3660	V3661	L3664	H3665	Q3666	L3667	I3668	E3678					
TRP	LEU	LYS	GLU	PRO	ASN	PRO	GLU	ALA	ALA	THR	LYS	VAL	PHE	ILE	SER	ILE	TRP	VAL	VAL	LYS	ASP	GLY	MET	SER	HIS	ASN	GLU	ARG	PHE	GLY	ASN	PRO	GLN	GLY	ILE	ASP	THR	LYS	MET	SER	LYS	ALA	ALA	ALA	LYS										
E3324	K3325	K3326	K3327	K3328	K3329	ALA	ALA	ALA	THR	LYS	VAL	VAL	VAL	SER	GLU	ASP	VAL	TYR	ASP	HIS	ASP	GLU	ASP	VAL	GLU	ASP	GLU	ASP	GLU	ASP	GLU	ASP	GLU	ASP	GLU	ASP	GLU	ASP	GLU	ASP	GLU	ASP	GLU	ASP	GLU	ASP	GLU	ASP							
L3197	P3198	V3201	C3205	I3206	P3209	L3210	L3211	L3214	M3215	E3216	E3217	V3219	E3220	L3221	A3222	E3223	G3224	S3225	I3226	R3227	Y3228	T3229	D3291	E3292	G3293	A3294	W3295	M3296	K3297	R3298	L3299	A3300	V3301	F3302	S3303	Q3304	T3305	P3306	I3307	S3308	K3309	V3310	K3311	Q3312	Q3313	L3314	L3315	K3316	T3317	H3318	F3319	L3320	P3321	L3322	M3323
L3197	P3198	V3201	C3205	I3206	P3209	L3210	L3211	L3214	M3215	E3216	E3217	V3219	E3220	L3221	A3222	E3223	G3224	S3225	I3226	R3227	Y3228	T3229	D3291	E3292	G3293	A3294	W3295	M3296	K3297	R3298	L3299	A3300	V3301	F3302	S3303	Q3304	T3305	P3306	I3307	S3308	K3309	V3310	K3311	Q3312	Q3313	L3314	L3315	K3316	T3317	H3318	F3319	L3320	P3321	L3322	M3323
G3135	S3136	L3137	G3138	A3139	L3140	S3143	K3144	S3145	G3146	Y3147	V3148	Q3151	R3152	S3153	A3154	L3155	G3156	E3157	L3158	A3159	A3160	F3162	A3163	G3164	A3165	F3166	V3167	A3169	F3170	L3171	E3172	L3173	H3174	L3175	D3176	K3177	H3178	N3179	L3180	Y3181	L3182	Y3184	N3185	L3186	L3187	S3188	E3189	R3190	E3191	A3192	A3193	A3194	L3195	S3196	
L3068	E3069	K3070	T3071	M3072	E3073	N3074	L3075	K3076	Q3077	G3078	Q3079	F3080	T3081	HIS	THR	ARG	ASN	GLN	PRO	K3088	G3089	V3090	T3091	Q3092	I3093	Y3096	T3097	T3098	L3102	P3103	M3104	L3105	S3106	S3107	L3108	F3109	E3110	H3111	I3112	G3113	Q3114	H3115	A3056	R3058	A3059	F3060	L3061	D3062	N3063	A3064	A3065	E3066	D3067		
R2988	P2989	L2990	C2991	S2992	G2993	K2999	E3000	K3001	E3002	M3003	T3005	F3008	C3009	V2933	D2934	E2935	A2936	H2937	Q2938	I2940	F2943	D2944	G2945	G2946	S2947	R2948	G2949	K2950	G2951	E2952	H2953	P2954	P2955	Y2956	Q2957	E2958	E2959	L2960	K2961	L2968	P2969	D2972	Q2973	H2978	D2979	K2980	L2981	A2982	L2983	A2986	S2987				
L2833	S2834	R2835	D2836	L2837	M2840	A2841	E2842	M2843	M2844	A2845	E2846	N2847	Y2848	H2849	K2856	K2857	L2860	E2861	G2864	G2865	G2866	V2872	P2873	Y2874	D2875	T2876	L2877	K2884	D2885	R2886	E2887	K2888	Q2889	D2891	L2892	L2893	F2894	L2898	N2899	G2900	Y2901	A2902	R2905	G2906	F2907	K2908	D2909	L2910	E2911						
P2759	T2760	K2761	L2762	L2763	E2767	K2768	E2769	L2770	L2771	R2772	P2773	L2774	L2775	K2776	K2780	T2781	L2785	R2788	L2789	E2790	R2791	T2792	R2793	E2794	G2795	K2798	N2802	ARG	THR	ARG	ARG	ILE	SER	GLN	THR	SER	GLN	VAL	SER	VAL	ASP	ALA	ALA	HIS	G2820	Y2821	S2822	P2823	R2824	A2825	N2830				



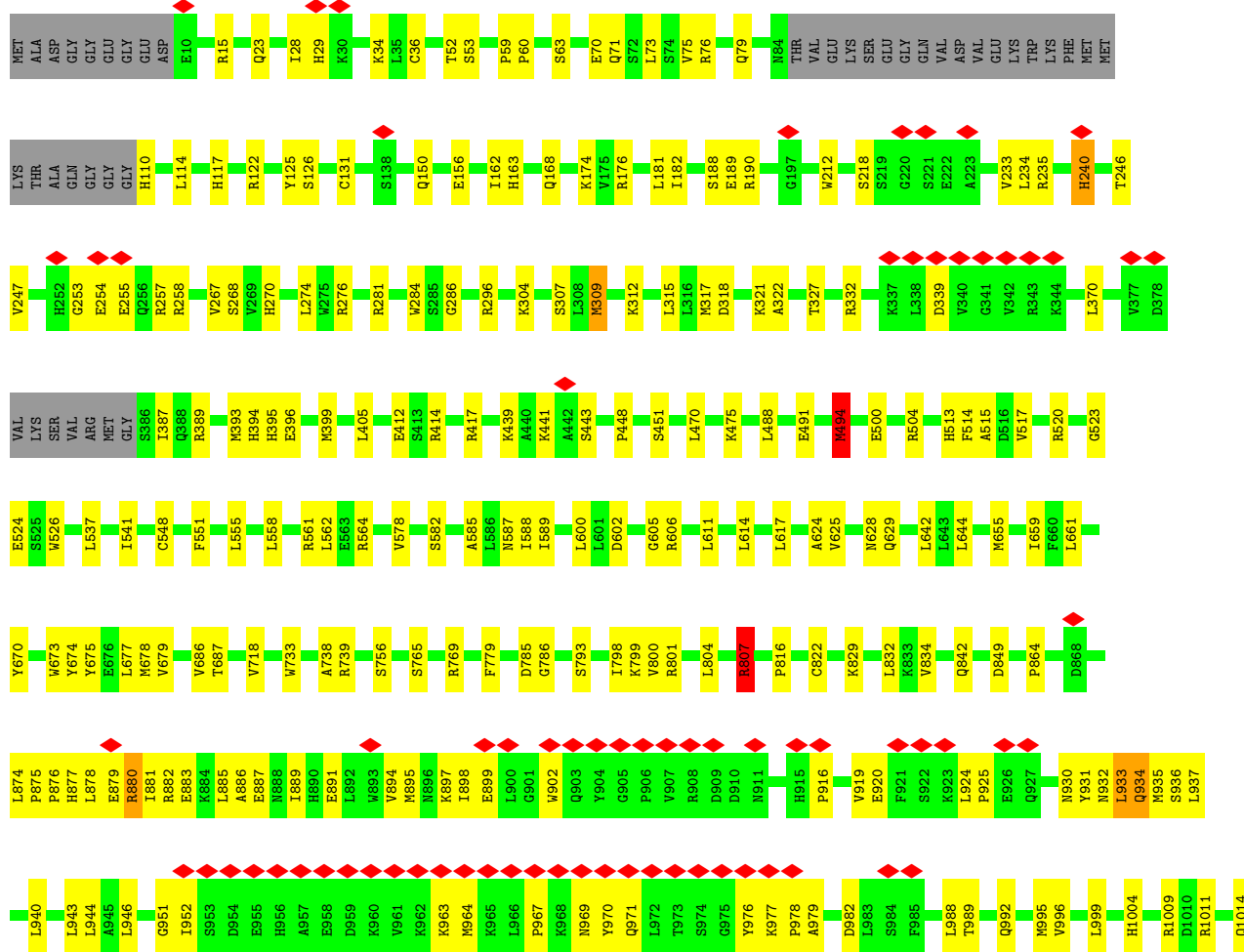


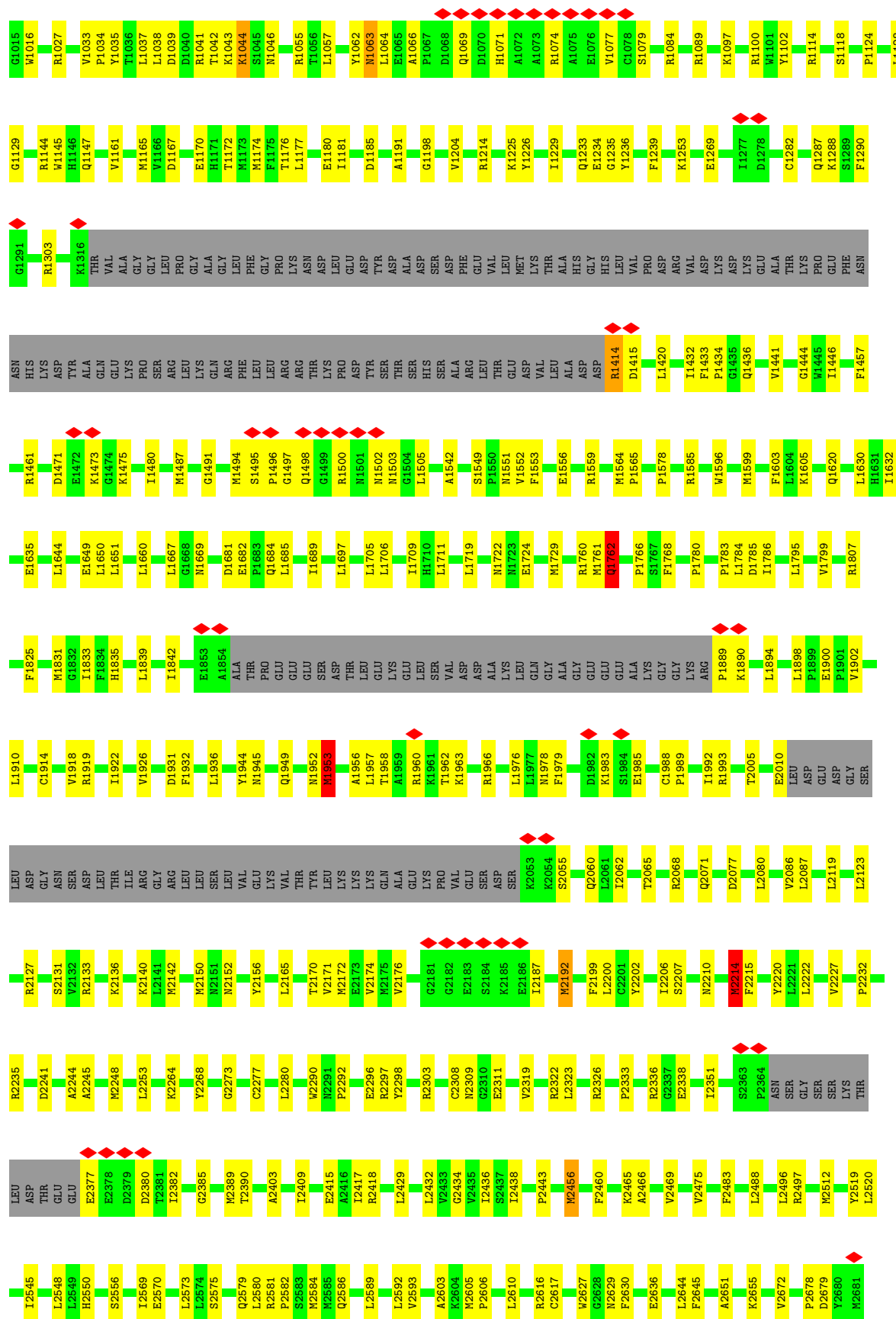




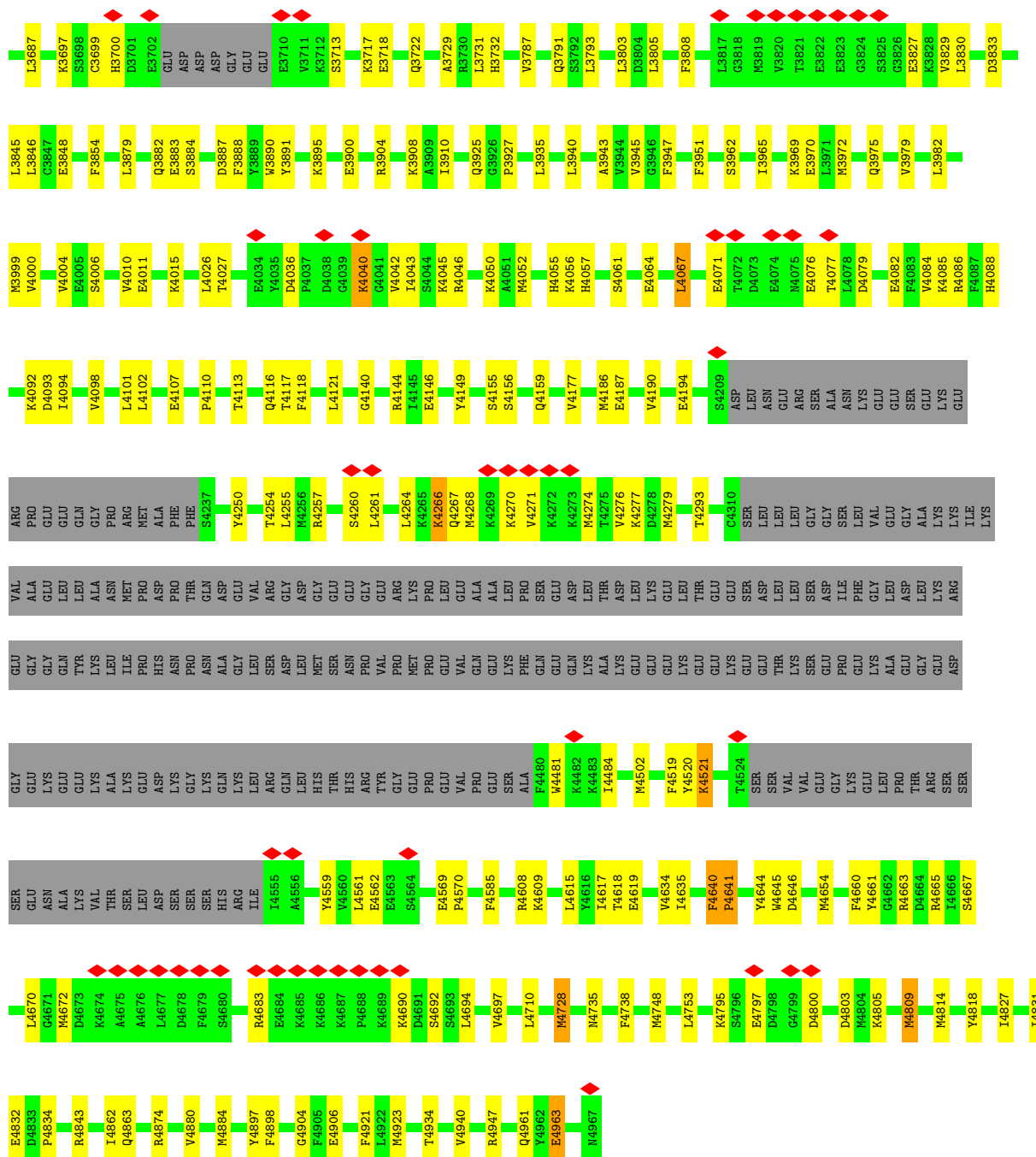


• Molecule 1: Ryanodine receptor 2

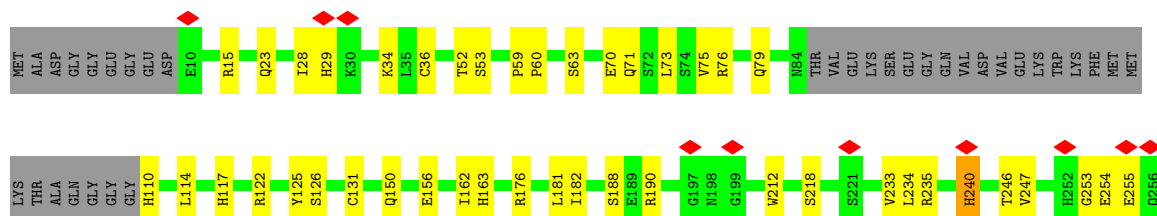








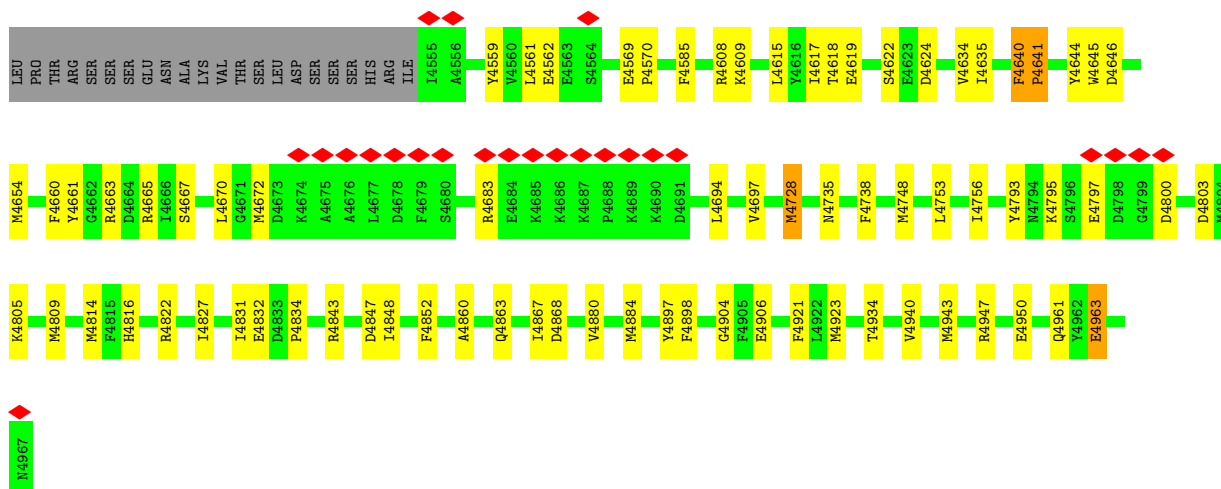
• Molecule 1: Ryanodine receptor 2





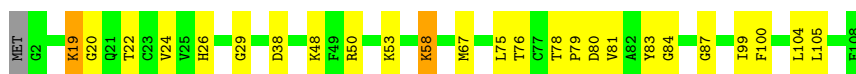


WORLDWIDE
PDB
PROTEIN DATA BANK



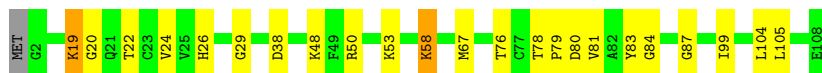
- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain E: 76% 21% ..



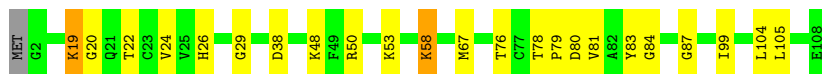
- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain F: 78% 19% ..



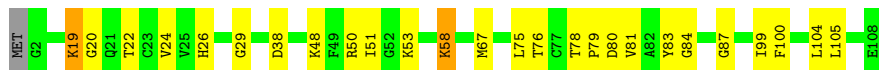
- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain G: 78% 19% ..



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

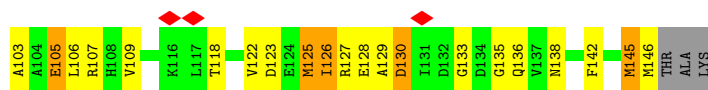
Chain H: 75% 22% ..



- Molecule 3: Calmodulin-1

Chain I: 59% 32% 5% .

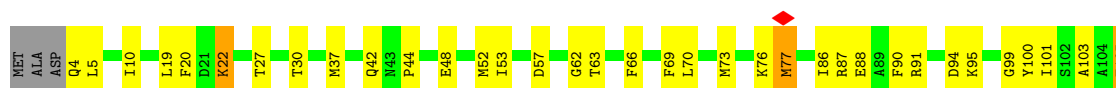




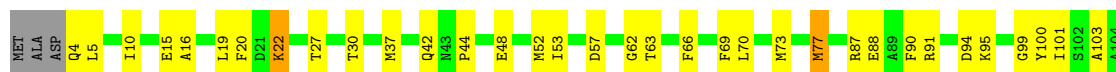
• Molecule 3: Calmodulin-1



• Molecule 3: Calmodulin-1



• Molecule 3: Calmodulin-1



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	77625	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	0.637	Depositor
Minimum map value	-0.007	Depositor
Average map value	0.014	Depositor
Map value standard deviation	0.037	Depositor
Recommended contour level	0.14	Depositor
Map size (Å)	424.96, 424.96, 424.96	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.83, 0.83, 0.83	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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	0.29	5/34603 (0.0%)	0.55	29/46734 (0.1%)
1	B	0.29	5/34603 (0.0%)	0.55	29/46734 (0.1%)
1	C	0.29	5/34603 (0.0%)	0.55	29/46734 (0.1%)
1	D	0.29	5/34603 (0.0%)	0.55	29/46734 (0.1%)
2	E	0.29	0/834	0.55	0/1123
2	F	0.29	0/834	0.55	0/1123
2	G	0.29	0/834	0.55	0/1123
2	H	0.29	0/834	0.56	0/1123
3	I	0.33	0/1143	0.62	2/1534 (0.1%)
3	J	0.34	0/1143	0.62	2/1534 (0.1%)
3	K	0.33	0/1143	0.62	2/1534 (0.1%)
3	L	0.33	0/1143	0.62	2/1534 (0.1%)
All	All	0.29	20/146320 (0.0%)	0.55	124/197564 (0.1%)

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	8
1	B	0	8
1	C	0	8
1	D	0	8
All	All	0	32

All (20) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	3164	GLY	N-CA	9.24	1.59	1.46
1	B	3164	GLY	N-CA	9.23	1.59	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	3164	GLY	N-CA	9.23	1.59	1.46
1	C	3164	GLY	N-CA	9.22	1.59	1.46
1	B	3164	GLY	CA-C	9.05	1.66	1.51
1	C	3164	GLY	CA-C	9.05	1.66	1.51
1	A	3164	GLY	CA-C	9.01	1.66	1.51
1	D	3164	GLY	CA-C	9.00	1.66	1.51
1	D	3244	SER	CA-C	6.02	1.68	1.52
1	A	3244	SER	CA-C	6.00	1.68	1.52
1	C	3244	SER	CA-C	6.00	1.68	1.52
1	B	3244	SER	CA-C	5.99	1.68	1.52
1	D	3164	GLY	C-N	5.82	1.47	1.34
1	C	3164	GLY	C-N	5.80	1.47	1.34
1	A	3164	GLY	C-N	5.79	1.47	1.34
1	B	3164	GLY	C-N	5.79	1.47	1.34
1	C	3245	TYR	N-CA	5.50	1.57	1.46
1	A	3245	TYR	N-CA	5.46	1.57	1.46
1	B	3245	TYR	N-CA	5.45	1.57	1.46
1	D	3245	TYR	N-CA	5.44	1.57	1.46

All (124) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	2737	LEU	CA-CB-CG	11.85	142.56	115.30
1	C	2737	LEU	CA-CB-CG	11.84	142.54	115.30
1	A	2737	LEU	CA-CB-CG	11.84	142.53	115.30
1	B	2737	LEU	CA-CB-CG	11.83	142.51	115.30
1	A	2844	MET	CA-CB-CG	10.67	131.44	113.30
1	D	2844	MET	CA-CB-CG	10.66	131.43	113.30
1	B	2844	MET	CA-CB-CG	10.65	131.41	113.30
1	C	2844	MET	CA-CB-CG	10.65	131.41	113.30
1	C	2844	MET	CB-CG-SD	10.62	144.26	112.40
1	B	2844	MET	CB-CG-SD	10.61	144.24	112.40
1	A	2844	MET	CB-CG-SD	10.61	144.24	112.40
1	D	2844	MET	CB-CG-SD	10.61	144.23	112.40
1	C	2689	MET	CA-CB-CG	9.94	130.20	113.30
1	B	2689	MET	CA-CB-CG	9.94	130.19	113.30
1	D	2689	MET	CA-CB-CG	9.94	130.19	113.30
1	A	2689	MET	CA-CB-CG	9.93	130.19	113.30
1	B	3244	SER	O-C-N	-9.12	108.10	122.70
1	A	3244	SER	O-C-N	-9.12	108.12	122.70
1	C	3244	SER	O-C-N	-9.11	108.12	122.70
1	D	3244	SER	O-C-N	-9.09	108.15	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	L	77	MET	CB-CG-SD	8.92	139.17	112.40
3	I	77	MET	CB-CG-SD	8.92	139.16	112.40
3	K	77	MET	CB-CG-SD	8.92	139.15	112.40
3	J	77	MET	CB-CG-SD	8.91	139.13	112.40
1	D	3247	SER	C-N-CA	-8.57	100.28	121.70
1	A	3247	SER	C-N-CA	-8.56	100.30	121.70
1	B	3247	SER	C-N-CA	-8.55	100.31	121.70
1	C	3247	SER	C-N-CA	-8.55	100.33	121.70
1	A	2689	MET	CB-CG-SD	7.43	134.70	112.40
1	D	2689	MET	CB-CG-SD	7.43	134.69	112.40
1	C	2689	MET	CB-CG-SD	7.43	134.69	112.40
1	B	2689	MET	CB-CG-SD	7.42	134.66	112.40
1	D	1953	MET	CB-CG-SD	7.38	134.53	112.40
1	C	1953	MET	CB-CG-SD	7.37	134.50	112.40
1	A	1953	MET	CB-CG-SD	7.36	134.49	112.40
1	B	1953	MET	CB-CG-SD	7.36	134.47	112.40
1	D	934	GLN	CA-CB-CG	6.75	128.25	113.40
1	A	934	GLN	CA-CB-CG	6.74	128.24	113.40
1	C	934	GLN	CA-CB-CG	6.74	128.24	113.40
1	B	934	GLN	CA-CB-CG	6.74	128.22	113.40
1	A	3323	MET	CB-CG-SD	6.70	132.50	112.40
1	B	3323	MET	CB-CG-SD	6.70	132.50	112.40
1	C	3323	MET	CB-CG-SD	6.70	132.50	112.40
1	D	3323	MET	CB-CG-SD	6.69	132.48	112.40
1	D	3134	LEU	CA-CB-CG	6.61	130.50	115.30
1	B	3134	LEU	CA-CB-CG	6.60	130.48	115.30
1	A	3134	LEU	CA-CB-CG	6.60	130.47	115.30
1	C	3134	LEU	CA-CB-CG	6.60	130.48	115.30
1	D	3268	LEU	CB-CG-CD2	-6.33	100.24	111.00
1	B	3268	LEU	CB-CG-CD2	-6.33	100.24	111.00
1	C	3268	LEU	CB-CG-CD2	-6.31	100.27	111.00
1	A	3268	LEU	CB-CG-CD2	-6.31	100.28	111.00
1	A	494	MET	CB-CG-SD	6.19	130.97	112.40
1	B	494	MET	CB-CG-SD	6.19	130.96	112.40
1	C	494	MET	CB-CG-SD	6.18	130.95	112.40
1	D	494	MET	CB-CG-SD	6.18	130.94	112.40
1	A	3281	LEU	CA-CB-CG	6.01	129.13	115.30
1	C	3281	LEU	CA-CB-CG	6.01	129.13	115.30
1	B	3281	LEU	CA-CB-CG	6.01	129.12	115.30
1	D	3245	TYR	CA-CB-CG	6.01	124.82	113.40
1	C	3245	TYR	CA-CB-CG	6.01	124.81	113.40
1	D	3281	LEU	CA-CB-CG	6.00	129.11	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	3245	TYR	CA-CB-CG	6.00	124.80	113.40
1	A	3245	TYR	CA-CB-CG	6.00	124.79	113.40
1	B	3192	ARG	CG-CD-NE	5.93	124.26	111.80
1	D	3192	ARG	CG-CD-NE	5.92	124.23	111.80
1	A	3192	ARG	CG-CD-NE	5.92	124.23	111.80
1	C	3192	ARG	CG-CD-NE	5.90	124.19	111.80
1	C	934	GLN	N-CA-CB	5.89	121.20	110.60
1	A	934	GLN	N-CA-CB	5.88	121.18	110.60
1	B	934	GLN	N-CA-CB	5.88	121.18	110.60
1	D	934	GLN	N-CA-CB	5.87	121.17	110.60
1	C	3164	GLY	N-CA-C	5.85	127.72	113.10
1	D	3164	GLY	N-CA-C	5.85	127.72	113.10
1	A	3164	GLY	N-CA-C	5.84	127.71	113.10
1	B	3164	GLY	N-CA-C	5.84	127.71	113.10
1	B	2214	MET	CB-CG-SD	5.83	129.91	112.40
1	A	2214	MET	CB-CG-SD	5.83	129.88	112.40
1	D	2214	MET	CB-CG-SD	5.82	129.87	112.40
1	C	2214	MET	CB-CG-SD	5.82	129.86	112.40
1	B	2735	ASP	CB-CG-OD1	5.80	123.52	118.30
1	A	2735	ASP	CB-CG-OD1	5.79	123.51	118.30
1	C	2735	ASP	CB-CG-OD1	5.77	123.49	118.30
1	D	2735	ASP	CB-CG-OD1	5.75	123.47	118.30
1	C	2835	ARG	CB-CG-CD	5.71	126.44	111.60
1	A	2835	ARG	CB-CG-CD	5.70	126.43	111.60
1	D	2835	ARG	CB-CG-CD	5.70	126.42	111.60
1	B	2835	ARG	CB-CG-CD	5.70	126.42	111.60
1	C	2456	MET	CB-CG-SD	5.68	129.43	112.40
1	A	2456	MET	CB-CG-SD	5.67	129.40	112.40
1	B	2456	MET	CB-CG-SD	5.67	129.40	112.40
1	D	2456	MET	CB-CG-SD	5.66	129.37	112.40
1	A	1953	MET	CG-SD-CE	5.61	109.17	100.20
1	B	1953	MET	CG-SD-CE	5.60	109.16	100.20
1	C	1953	MET	CG-SD-CE	5.60	109.17	100.20
1	D	1953	MET	CG-SD-CE	5.59	109.14	100.20
1	D	3244	SER	CA-C-N	5.44	129.17	117.20
1	A	3244	SER	CA-C-N	5.44	129.17	117.20
1	B	3244	SER	CA-C-N	5.44	129.16	117.20
1	C	3244	SER	CA-C-N	5.43	129.15	117.20
3	I	77	MET	CA-CB-CG	5.28	122.28	113.30
1	A	807	ARG	CG-CD-NE	5.27	122.87	111.80
1	B	807	ARG	CG-CD-NE	5.27	122.87	111.80
1	C	807	ARG	CG-CD-NE	5.27	122.86	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	807	ARG	CG-CD-NE	5.27	122.86	111.80
3	K	77	MET	CA-CB-CG	5.27	122.25	113.30
3	J	77	MET	CA-CB-CG	5.26	122.25	113.30
3	L	77	MET	CA-CB-CG	5.25	122.23	113.30
1	C	2735	ASP	CB-CG-OD2	-5.25	113.58	118.30
1	B	2735	ASP	CB-CG-OD2	-5.22	113.60	118.30
1	C	2793	ARG	CA-CB-CG	5.21	124.86	113.40
1	D	2793	ARG	CA-CB-CG	5.21	124.86	113.40
1	B	2793	ARG	CA-CB-CG	5.20	124.85	113.40
1	A	2793	ARG	CA-CB-CG	5.20	124.84	113.40
1	D	2735	ASP	CB-CG-OD2	-5.20	113.62	118.30
1	A	2735	ASP	CB-CG-OD2	-5.20	113.62	118.30
1	C	933	LEU	CA-CB-CG	5.18	127.22	115.30
1	B	933	LEU	CA-CB-CG	5.17	127.20	115.30
1	A	933	LEU	CA-CB-CG	5.17	127.19	115.30
1	D	933	LEU	CA-CB-CG	5.17	127.18	115.30
1	D	1762	GLN	CA-CB-CG	5.07	124.55	113.40
1	A	1762	GLN	CA-CB-CG	5.06	124.53	113.40
1	C	1762	GLN	CA-CB-CG	5.06	124.53	113.40
1	B	1762	GLN	CA-CB-CG	5.05	124.51	113.40

There are no chirality outliers.

All (32) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	3058	ARG	Sidechain
1	A	3162	PHE	Peptide
1	A	3163	ALA	Peptide
1	A	3244	SER	Peptide,Mainchain
1	A	3247	SER	Peptide
1	A	3298	ARG	Sidechain
1	A	4640	PHE	Peptide
1	B	3058	ARG	Sidechain
1	B	3162	PHE	Peptide
1	B	3163	ALA	Peptide
1	B	3244	SER	Peptide,Mainchain
1	B	3247	SER	Peptide
1	B	3298	ARG	Sidechain
1	B	4640	PHE	Peptide
1	C	3058	ARG	Sidechain
1	C	3162	PHE	Peptide
1	C	3163	ALA	Peptide

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Mol	Chain	Res	Type	Group
1	C	3244	SER	Peptide,Mainchain
1	C	3247	SER	Peptide
1	C	3298	ARG	Sidechain
1	C	4640	PHE	Peptide
1	D	3058	ARG	Sidechain
1	D	3162	PHE	Peptide
1	D	3163	ALA	Peptide
1	D	3244	SER	Peptide,Mainchain
1	D	3247	SER	Peptide
1	D	3298	ARG	Sidechain
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	33858	0	33562	919	0
1	B	33858	0	33562	925	0
1	C	33858	0	33562	916	0
1	D	33858	0	33562	912	0
2	E	818	0	821	16	0
2	F	818	0	821	16	0
2	G	818	0	821	17	0
2	H	818	0	821	18	0
3	I	1131	0	1059	42	0
3	J	1131	0	1059	50	0
3	K	1131	0	1059	50	0
3	L	1131	0	1059	46	0
4	A	1	0	0	0	0
4	B	1	0	0	0	0
4	C	1	0	0	0	0
4	D	1	0	0	0	0
5	A	62	0	24	0	0
5	B	62	0	24	0	0
5	C	62	0	24	0	0
5	D	62	0	24	0	0
6	A	1	0	0	0	0
6	B	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
6	C	1	0	0	0	0
6	D	1	0	0	0	0
6	I	4	0	0	2	0
6	J	4	0	0	2	0
6	K	4	0	0	2	0
6	L	4	0	0	2	0
All	All	143500	0	141864	3788	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 13.

All (3788) 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:C:3165:ALA:N	1:C:3244:SER:O	1.63	1.32
1:B:3165:ALA:N	1:B:3244:SER:O	1.63	1.31
1:D:3165:ALA:N	1:D:3244:SER:O	1.63	1.29
1:A:3165:ALA:N	1:A:3244:SER:O	1.63	1.26
1:A:3165:ALA:H	1:A:3244:SER:C	1.39	1.25
1:B:3165:ALA:H	1:B:3244:SER:C	1.39	1.24
1:D:3165:ALA:H	1:D:3244:SER:C	1.39	1.22
1:C:3165:ALA:H	1:C:3244:SER:C	1.40	1.22
1:A:3164:GLY:HA2	1:A:3246:MET:N	1.54	1.21
1:B:3164:GLY:HA2	1:B:3246:MET:N	1.54	1.20
1:C:3164:GLY:HA2	1:C:3246:MET:N	1.54	1.20
1:D:3164:GLY:HA2	1:D:3246:MET:N	1.54	1.20
1:A:3164:GLY:N	1:A:3245:TYR:N	1.95	1.15
1:D:3164:GLY:N	1:D:3245:TYR:N	1.95	1.15
1:C:3164:GLY:N	1:C:3245:TYR:N	1.95	1.14
1:B:3164:GLY:N	1:B:3245:TYR:N	1.95	1.13
1:A:3163:ALA:HA	1:A:3245:TYR:HB3	1.16	1.10
1:B:3163:ALA:HA	1:B:3245:TYR:HB3	1.16	1.08
1:D:3163:ALA:HA	1:D:3245:TYR:HB3	1.16	1.07
1:C:3163:ALA:HA	1:C:3245:TYR:HB3	1.16	1.06
1:C:3163:ALA:C	1:C:3245:TYR:H	1.59	1.05
1:C:3165:ALA:N	1:C:3244:SER:C	2.06	1.04
1:B:3163:ALA:C	1:B:3245:TYR:H	1.59	1.04
1:D:3163:ALA:C	1:D:3245:TYR:H	1.59	1.04
1:A:3163:ALA:C	1:A:3245:TYR:H	1.59	1.03
1:A:3164:GLY:N	1:A:3245:TYR:H	1.54	1.03
1:D:3205:CYS:HB2	1:D:3208:ILE:HD13	1.42	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3164:GLY:N	1:D:3245:TYR:H	1.54	1.01
1:C:3205:CYS:HB2	1:C:3208:ILE:HD13	1.42	1.01
1:D:3165:ALA:N	1:D:3244:SER:C	2.06	1.00
1:B:3165:ALA:N	1:B:3244:SER:C	2.06	0.99
1:C:3164:GLY:N	1:C:3245:TYR:H	1.54	0.99
1:A:3205:CYS:HB2	1:A:3208:ILE:HD13	1.42	0.99
1:B:3205:CYS:HB2	1:B:3208:ILE:HD13	1.42	0.97
1:B:3164:GLY:N	1:B:3245:TYR:H	1.54	0.97
1:A:3165:ALA:N	1:A:3244:SER:C	2.06	0.97
1:C:3164:GLY:H	1:C:3244:SER:N	1.66	0.94
1:A:3164:GLY:H	1:A:3244:SER:N	1.66	0.93
1:D:3164:GLY:H	1:D:3244:SER:N	1.66	0.93
1:B:3164:GLY:H	1:B:3244:SER:N	1.66	0.93
1:B:3166:PHE:N	1:B:3244:SER:O	2.02	0.92
1:D:3166:PHE:N	1:D:3244:SER:O	2.02	0.92
1:C:3163:ALA:CA	1:C:3245:TYR:H	1.83	0.92
1:C:3166:PHE:N	1:C:3244:SER:O	2.02	0.92
1:B:3163:ALA:CA	1:B:3245:TYR:H	1.83	0.91
1:A:3163:ALA:CA	1:A:3245:TYR:H	1.83	0.91
1:A:3166:PHE:N	1:A:3244:SER:O	2.02	0.91
1:D:3163:ALA:CA	1:D:3245:TYR:H	1.83	0.91
1:B:3159:LEU:HG	1:B:3241:MET:HB2	1.54	0.90
1:D:3159:LEU:HG	1:D:3241:MET:HB2	1.54	0.90
1:D:75:VAL:HG12	1:D:79:GLN:HE22	1.37	0.90
1:C:3159:LEU:HG	1:C:3241:MET:HB2	1.54	0.89
1:C:75:VAL:HG12	1:C:79:GLN:HE22	1.37	0.89
1:C:3163:ALA:HA	1:C:3245:TYR:CB	2.03	0.89
1:D:3163:ALA:HA	1:D:3245:TYR:CB	2.03	0.89
1:B:75:VAL:HG12	1:B:79:GLN:HE22	1.37	0.89
1:A:3159:LEU:HG	1:A:3241:MET:HB2	1.54	0.88
1:D:3108:LEU:HD12	1:D:3111:HIS:HE1	1.37	0.88
1:C:4270:LYS:HG3	1:C:4274:MET:HE1	1.55	0.88
1:D:4270:LYS:HG3	1:D:4274:MET:HE1	1.56	0.87
1:D:3164:GLY:C	1:D:3244:SER:HA	1.95	0.87
1:C:3108:LEU:HD12	1:C:3111:HIS:HE1	1.37	0.87
1:A:3169:ALA:HA	1:A:3245:TYR:HE1	1.39	0.87
1:D:3169:ALA:HA	1:D:3245:TYR:HE1	1.39	0.87
1:A:75:VAL:HG12	1:A:79:GLN:HE22	1.37	0.87
1:A:3163:ALA:CA	1:A:3245:TYR:HB3	2.05	0.86
1:C:3164:GLY:C	1:C:3244:SER:HA	1.95	0.86
1:D:3163:ALA:CA	1:D:3245:TYR:HB3	2.05	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3108:LEU:HD12	1:A:3111:HIS:HE1	1.37	0.86
1:B:3108:LEU:HD12	1:B:3111:HIS:HE1	1.37	0.86
1:C:3163:ALA:CA	1:C:3245:TYR:HB3	2.05	0.86
1:B:3163:ALA:CA	1:B:3245:TYR:HB3	2.05	0.86
1:B:3164:GLY:C	1:B:3244:SER:HA	1.95	0.86
1:C:3169:ALA:HA	1:C:3245:TYR:HE1	1.39	0.86
1:B:4270:LYS:HG3	1:B:4274:MET:HE1	1.57	0.86
1:B:3163:ALA:HA	1:B:3245:TYR:CB	2.03	0.85
1:A:3164:GLY:C	1:A:3244:SER:HA	1.95	0.85
1:A:4270:LYS:HG3	1:A:4274:MET:HE1	1.56	0.85
1:A:3163:ALA:HA	1:A:3245:TYR:CB	2.03	0.85
1:A:3293:GLY:HA3	1:A:3296:MET:HG2	1.59	0.85
1:B:3169:ALA:HA	1:B:3245:TYR:HE1	1.39	0.85
1:B:3293:GLY:HA3	1:B:3296:MET:HG2	1.59	0.84
1:C:1957:LEU:HD21	3:K:42:GLN:NE2	1.93	0.84
1:D:874:LEU:HD13	1:D:940:LEU:HD13	1.60	0.84
1:A:874:LEU:HD13	1:A:940:LEU:HD13	1.60	0.83
1:C:3298:ARG:NH2	3:K:133:GLY:O	2.11	0.83
1:D:3293:GLY:HA3	1:D:3296:MET:HG2	1.59	0.83
1:C:3293:GLY:HA3	1:C:3296:MET:HG2	1.59	0.82
1:A:3298:ARG:NH2	3:I:133:GLY:O	2.12	0.82
1:B:874:LEU:HD13	1:B:940:LEU:HD13	1.60	0.82
1:A:3295:TRP:HA	1:A:3298:ARG:HG2	1.62	0.82
1:A:4271:VAL:HG12	1:B:4480:PHE:HZ	1.44	0.82
1:C:874:LEU:HD13	1:C:940:LEU:HD13	1.60	0.82
1:B:4271:VAL:HA	1:B:4274:MET:HG2	1.62	0.82
1:C:3295:TRP:HA	1:C:3298:ARG:HG2	1.62	0.81
1:C:4271:VAL:HA	1:C:4274:MET:HG2	1.61	0.81
1:D:4640:PHE:CD2	1:D:4641:PRO:HD3	2.15	0.81
1:A:4640:PHE:CD2	1:A:4641:PRO:HD3	2.15	0.81
1:A:2895:PHE:O	1:A:2899:ASN:ND2	2.14	0.81
1:B:3164:GLY:HA2	1:B:3245:TYR:C	2.01	0.81
1:D:4040:LYS:HD2	1:D:4042:VAL:H	1.45	0.81
1:A:4271:VAL:HA	1:A:4274:MET:HG2	1.61	0.81
1:A:4557:VAL:HG11	1:B:4790:ARG:HH22	1.46	0.80
1:C:2895:PHE:O	1:C:2899:ASN:ND2	2.14	0.80
1:C:4640:PHE:CD2	1:C:4641:PRO:HD3	2.15	0.80
1:B:3295:TRP:HA	1:B:3298:ARG:HG2	1.62	0.80
1:C:4040:LYS:HD2	1:C:4042:VAL:H	1.46	0.80
1:D:3295:TRP:HA	1:D:3298:ARG:HG2	1.62	0.80
1:D:3164:GLY:HA2	1:D:3245:TYR:C	2.01	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4271:VAL:HA	1:D:4274:MET:HG2	1.61	0.80
1:B:4640:PHE:CD2	1:B:4641:PRO:HD3	2.15	0.80
1:C:2798:MET:SD	1:D:1497:GLY:HA3	2.21	0.80
1:A:3164:GLY:HA2	1:A:3245:TYR:C	2.01	0.79
1:D:2895:PHE:O	1:D:2899:ASN:ND2	2.14	0.79
1:B:2895:PHE:O	1:B:2899:ASN:ND2	2.14	0.79
1:A:4040:LYS:HD2	1:A:4042:VAL:H	1.45	0.79
1:C:3164:GLY:HA2	1:C:3245:TYR:C	2.01	0.79
1:B:3165:ALA:HA	1:B:3248:ARG:N	1.99	0.78
1:B:4040:LYS:HD2	1:B:4042:VAL:H	1.46	0.78
1:A:3165:ALA:HA	1:A:3248:ARG:N	1.99	0.78
1:B:2923:TYR:O	1:B:2927:GLN:NE2	2.17	0.78
1:A:3890:TRP:HB3	1:B:76:ARG:HG2	1.63	0.78
1:A:3163:ALA:C	1:A:3245:TYR:N	2.33	0.78
1:A:3162:PHE:O	1:A:3166:PHE:CB	2.32	0.78
1:D:3162:PHE:O	1:D:3166:PHE:CB	2.32	0.78
1:A:3068:LEU:HD11	1:A:3140:LEU:HD11	1.66	0.77
1:C:2923:TYR:O	1:C:2927:GLN:NE2	2.17	0.77
1:D:2923:TYR:O	1:D:2927:GLN:NE2	2.17	0.77
1:D:3165:ALA:HA	1:D:3248:ARG:N	1.99	0.77
1:A:2923:TYR:O	1:A:2927:GLN:NE2	2.17	0.77
1:C:4056:LYS:HE3	1:D:4660:PHE:O	1.84	0.77
1:D:3162:PHE:O	1:D:3245:TYR:N	2.18	0.77
1:A:3166:PHE:H	1:A:3245:TYR:HA	1.50	0.77
1:B:3163:ALA:C	1:B:3245:TYR:N	2.34	0.77
1:C:3165:ALA:HA	1:C:3248:ARG:N	1.99	0.77
1:D:3068:LEU:HD11	1:D:3140:LEU:HD11	1.66	0.77
1:A:3942:ASP:OD2	1:B:174:LYS:NZ	2.18	0.77
1:B:3162:PHE:O	1:B:3166:PHE:CB	2.32	0.77
1:B:3218:ILE:HG13	1:B:3242:LEU:HD11	1.67	0.77
1:C:3166:PHE:H	1:C:3245:TYR:HA	1.50	0.77
1:A:3316:LYS:HA	1:A:3319:PHE:CD1	2.20	0.77
1:C:3316:LYS:HA	1:C:3319:PHE:CD1	2.20	0.77
1:D:3218:ILE:HG13	1:D:3242:LEU:HD11	1.67	0.77
1:D:3316:LYS:HA	1:D:3319:PHE:CD1	2.20	0.77
1:A:3162:PHE:O	1:A:3245:TYR:N	2.18	0.76
1:C:3162:PHE:O	1:C:3166:PHE:CB	2.32	0.76
1:C:3162:PHE:O	1:C:3245:TYR:N	2.18	0.76
1:B:3162:PHE:O	1:B:3245:TYR:N	2.18	0.76
1:C:3218:ILE:HG13	1:C:3242:LEU:HD11	1.67	0.76
1:B:3316:LYS:HA	1:B:3319:PHE:CD1	2.20	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3591:LEU:HD21	3:J:86:ILE:HG12	1.67	0.76
1:A:3218:ILE:HG13	1:A:3242:LEU:HD11	1.67	0.76
1:A:3165:ALA:N	1:A:3244:SER:HA	2.00	0.76
1:D:75:VAL:O	1:D:79:GLN:NE2	2.18	0.76
1:A:4864:GLY:HA2	1:D:4867:ILE:HG12	1.66	0.76
1:C:3165:ALA:N	1:C:3244:SER:HA	2.00	0.76
1:B:75:VAL:O	1:B:79:GLN:NE2	2.18	0.76
1:C:75:VAL:O	1:C:79:GLN:NE2	2.18	0.76
1:D:3166:PHE:H	1:D:3245:TYR:HA	1.50	0.76
1:B:3068:LEU:HD11	1:B:3140:LEU:HD11	1.66	0.75
1:C:3068:LEU:HD11	1:C:3140:LEU:HD11	1.66	0.75
1:A:75:VAL:O	1:A:79:GLN:NE2	2.18	0.75
1:D:3112:ILE:HD12	1:D:3121:LEU:HD23	1.69	0.75
1:A:3112:ILE:HD12	1:A:3121:LEU:HD23	1.69	0.75
1:D:3165:ALA:N	1:D:3244:SER:HA	2.00	0.75
1:D:3162:PHE:O	1:D:3166:PHE:HB2	1.86	0.75
1:B:3162:PHE:O	1:B:3166:PHE:HB2	1.86	0.74
1:C:4874:ARG:NH1	1:D:4868:ASP:OD1	2.20	0.74
1:A:3162:PHE:O	1:A:3166:PHE:HB2	1.86	0.74
1:B:3165:ALA:N	1:B:3244:SER:HA	2.00	0.74
1:C:3162:PHE:O	1:C:3166:PHE:HB2	1.87	0.74
1:C:3169:ALA:HA	1:C:3245:TYR:CE1	2.23	0.74
1:A:3945:VAL:HG23	1:A:4006:SER:HB3	1.70	0.74
1:D:3169:ALA:HA	1:D:3245:TYR:CE1	2.23	0.74
1:A:3169:ALA:HA	1:A:3245:TYR:CE1	2.23	0.74
1:B:3166:PHE:H	1:B:3245:TYR:HA	1.50	0.74
1:A:2732:TRP:HH2	1:A:2756:LEU:HB3	1.53	0.74
1:B:240:HIS:ND1	1:B:240:HIS:O	2.21	0.74
1:A:240:HIS:O	1:A:240:HIS:ND1	2.21	0.73
1:C:240:HIS:ND1	1:C:240:HIS:O	2.21	0.73
1:D:3163:ALA:C	1:D:3245:TYR:N	2.34	0.73
1:D:240:HIS:ND1	1:D:240:HIS:O	2.21	0.73
1:A:3164:GLY:CA	1:A:3245:TYR:N	2.52	0.73
1:C:1963:LYS:HE2	1:C:1966:ARG:HH21	1.53	0.73
1:B:1963:LYS:HE2	1:B:1966:ARG:HH21	1.53	0.73
1:C:3112:ILE:HD12	1:C:3121:LEU:HD23	1.69	0.73
1:D:3159:LEU:HA	1:D:3162:PHE:HD2	1.53	0.73
1:B:3112:ILE:HD12	1:B:3121:LEU:HD23	1.69	0.73
1:A:2788:ARG:HD3	1:A:2908:LYS:HZ1	1.53	0.73
1:A:4036:ASP:HB2	1:A:4043:ILE:HD13	1.71	0.73
1:C:3164:GLY:CA	1:C:3245:TYR:N	2.52	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3945:VAL:HG23	1:C:4006:SER:HB3	1.70	0.73
1:D:4036:ASP:HB2	1:D:4043:ILE:HD13	1.71	0.73
1:B:2732:TRP:HH2	1:B:2756:LEU:HB3	1.53	0.73
1:B:3169:ALA:HA	1:B:3245:TYR:CE1	2.23	0.73
1:B:3945:VAL:HG23	1:B:4006:SER:HB3	1.70	0.73
1:C:2732:TRP:HH2	1:C:2756:LEU:HB3	1.53	0.73
1:C:3159:LEU:HA	1:C:3162:PHE:HD2	1.53	0.73
1:A:1963:LYS:HE2	1:A:1966:ARG:HH21	1.53	0.73
1:C:1958:THR:O	1:C:1966:ARG:NH1	2.22	0.72
1:D:2732:TRP:HH2	1:D:2756:LEU:HB3	1.53	0.72
1:A:76:ARG:HG2	1:D:3890:TRP:HB3	1.71	0.72
1:A:4660:PHE:O	1:D:4056:LYS:HE3	1.90	0.72
1:D:1958:THR:O	1:D:1966:ARG:NH1	2.22	0.72
3:J:142:PHE:HA	3:J:145:MET:HE2	1.69	0.72
1:A:3159:LEU:HA	1:A:3162:PHE:HD2	1.53	0.72
1:B:3164:GLY:CA	1:B:3245:TYR:N	2.52	0.72
1:C:3295:TRP:O	1:C:3298:ARG:HB2	1.90	0.72
1:B:317:MET:HB2	1:B:321:LYS:HE2	1.71	0.72
1:B:3159:LEU:HA	1:B:3162:PHE:HD2	1.53	0.72
1:C:1069:GLN:HE22	1:C:1071:HIS:HB2	1.55	0.72
1:D:3164:GLY:CA	1:D:3245:TYR:N	2.52	0.72
1:A:317:MET:HB2	1:A:321:LYS:HE2	1.71	0.72
1:D:1069:GLN:HE22	1:D:1071:HIS:HB2	1.55	0.72
1:D:3945:VAL:HG23	1:D:4006:SER:HB3	1.70	0.72
1:C:4026:LEU:HD21	1:C:4052:MET:HG2	1.72	0.72
1:D:1963:LYS:HE2	1:D:1966:ARG:HH21	1.52	0.72
1:D:3295:TRP:O	1:D:3298:ARG:HB2	1.90	0.72
1:A:1958:THR:O	1:A:1966:ARG:NH1	2.22	0.72
3:I:142:PHE:HA	3:I:145:MET:HE2	1.72	0.72
1:B:1129:GLY:HA3	1:B:1145:TRP:HB3	1.71	0.72
1:B:3295:TRP:O	1:B:3298:ARG:HB2	1.90	0.72
1:B:4036:ASP:HB2	1:B:4043:ILE:HD13	1.71	0.72
1:C:317:MET:HB2	1:C:321:LYS:HE2	1.71	0.72
1:D:3164:GLY:CA	1:D:3246:MET:N	2.45	0.72
1:A:1129:GLY:HA3	1:A:1145:TRP:HB3	1.71	0.71
1:D:235:ARG:NH1	1:D:268:SER:O	2.23	0.71
1:D:1129:GLY:HA3	1:D:1145:TRP:HB3	1.71	0.71
3:L:142:PHE:HA	3:L:145:MET:HE2	1.70	0.71
1:A:3295:TRP:O	1:A:3298:ARG:HB2	1.90	0.71
1:B:3803:LEU:HB2	1:B:3884:SER:HB2	1.72	0.71
1:B:4026:LEU:HD21	1:B:4052:MET:HG2	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1129:GLY:HA3	1:C:1145:TRP:HB3	1.71	0.71
1:D:2788:ARG:HD3	1:D:2908:LYS:HZ1	1.55	0.71
1:D:317:MET:HB2	1:D:321:LYS:HE2	1.71	0.71
1:B:1958:THR:O	1:B:1966:ARG:NH1	2.22	0.71
1:C:2898:ILE:HD11	1:D:1501:ASN:ND2	2.05	0.71
1:C:3803:LEU:HB2	1:C:3884:SER:HB2	1.72	0.71
1:A:3228:TYR:HB2	1:A:3290:ILE:HD12	1.72	0.71
1:C:3277:LEU:HA	1:C:3280:ILE:HG12	1.72	0.71
1:C:4036:ASP:HB2	1:C:4043:ILE:HD13	1.71	0.71
1:B:1069:GLN:HE22	1:B:1071:HIS:HB2	1.55	0.71
1:B:3166:PHE:HE2	1:B:3168:VAL:HG22	1.56	0.71
1:C:235:ARG:NH1	1:C:268:SER:O	2.23	0.71
1:A:235:ARG:NH1	1:A:268:SER:O	2.23	0.71
1:A:4026:LEU:HD21	1:A:4052:MET:HG2	1.72	0.71
1:A:3222:ALA:O	1:A:3282:LYS:NZ	2.24	0.71
1:A:1069:GLN:HE22	1:A:1071:HIS:HB2	1.55	0.71
1:A:3166:PHE:HE2	1:A:3168:VAL:HG22	1.56	0.70
1:B:3228:TYR:HB2	1:B:3290:ILE:HD12	1.72	0.70
1:D:3277:LEU:HA	1:D:3280:ILE:HG12	1.73	0.70
1:C:3166:PHE:HE2	1:C:3168:VAL:HG22	1.56	0.70
1:C:3222:ALA:O	1:C:3282:LYS:NZ	2.24	0.70
1:B:235:ARG:NH1	1:B:268:SER:O	2.23	0.70
1:C:1433:PHE:O	1:C:1500:ARG:NH2	2.25	0.70
1:D:3222:ALA:O	1:D:3282:LYS:NZ	2.24	0.70
1:D:3228:TYR:HB2	1:D:3290:ILE:HD12	1.72	0.70
1:B:2930:ILE:O	1:B:3010:LYS:NZ	2.24	0.70
1:C:3164:GLY:N	1:C:3244:SER:N	2.40	0.70
1:D:2930:ILE:O	1:D:3010:LYS:NZ	2.24	0.70
1:D:4026:LEU:HD21	1:D:4052:MET:HG2	1.72	0.70
1:C:3164:GLY:HA3	1:C:3243:CYS:O	1.92	0.70
1:D:3164:GLY:HA3	1:D:3243:CYS:O	1.92	0.70
1:C:3163:ALA:C	1:C:3245:TYR:N	2.33	0.70
1:A:3803:LEU:HB2	1:A:3884:SER:HB2	1.72	0.70
1:A:3239:LEU:HD22	1:A:3280:ILE:HG22	1.74	0.70
1:B:1433:PHE:O	1:B:1500:ARG:NH2	2.25	0.70
1:A:963:LYS:HD2	1:A:977:LYS:HE3	1.74	0.69
1:C:3239:LEU:HD22	1:C:3280:ILE:HG22	1.73	0.69
1:D:963:LYS:HD2	1:D:977:LYS:HE3	1.74	0.69
1:D:1433:PHE:O	1:D:1500:ARG:NH2	2.25	0.69
1:A:3164:GLY:HA3	1:A:3243:CYS:O	1.92	0.69
1:A:3242:LEU:O	1:A:3246:MET:HB2	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4522:VAL:HG12	1:B:4807:ASP:O	1.92	0.69
1:D:3241:MET:HG2	1:D:3242:LEU:N	2.08	0.69
1:A:3241:MET:HG2	1:A:3242:LEU:N	2.08	0.69
1:D:3298:ARG:NH2	3:L:133:GLY:O	2.22	0.69
1:A:1433:PHE:O	1:A:1500:ARG:NH2	2.25	0.69
1:B:3016:ARG:HH21	1:B:3067:ASP:HB2	1.58	0.69
1:C:3228:TYR:HB2	1:C:3290:ILE:HD12	1.72	0.69
1:C:3242:LEU:O	1:C:3246:MET:HB2	1.92	0.69
1:D:3242:LEU:O	1:D:3246:MET:HB2	1.92	0.69
1:A:3277:LEU:HA	1:A:3280:ILE:HG12	1.73	0.69
1:B:3602:CYS:HB2	3:J:76:LYS:HG3	1.74	0.69
1:D:3164:GLY:N	1:D:3244:SER:N	2.40	0.69
1:D:3803:LEU:HB2	1:D:3884:SER:HB2	1.72	0.69
1:B:3222:ALA:O	1:B:3282:LYS:NZ	2.24	0.69
1:B:3239:LEU:HD22	1:B:3280:ILE:HG22	1.73	0.69
1:B:3164:GLY:CA	1:B:3246:MET:N	2.45	0.69
1:B:3277:LEU:HA	1:B:3280:ILE:HG12	1.73	0.69
1:A:2930:ILE:O	1:A:3010:LYS:NZ	2.24	0.69
1:A:3312:PRO:HA	1:A:3315:LEU:HD12	1.75	0.69
1:B:3241:MET:HG2	1:B:3242:LEU:N	2.07	0.69
1:C:2832:THR:OG1	1:D:1548:THR:O	2.10	0.69
1:D:3166:PHE:HE2	1:D:3168:VAL:HG22	1.56	0.69
1:D:3165:ALA:CA	1:D:3244:SER:O	2.41	0.69
1:A:3165:ALA:CA	1:A:3244:SER:O	2.41	0.69
1:A:4609:LYS:HD2	1:A:4615:LEU:HD22	1.74	0.69
1:B:963:LYS:HD2	1:B:977:LYS:HE3	1.74	0.69
1:B:3164:GLY:HA3	1:B:3243:CYS:O	1.92	0.69
1:D:126:SER:HA	1:D:414:ARG:HH12	1.58	0.69
1:D:3239:LEU:HD22	1:D:3280:ILE:HG22	1.73	0.69
1:B:3164:GLY:N	1:B:3244:SER:N	2.40	0.68
1:B:3242:LEU:O	1:B:3246:MET:HB2	1.92	0.68
1:C:3016:ARG:HH21	1:C:3067:ASP:HB2	1.58	0.68
1:C:3241:MET:HG2	1:C:3242:LEU:N	2.08	0.68
1:A:4294:LEU:HD22	1:B:4719:PHE:CE2	2.28	0.68
1:B:3312:PRO:HA	1:B:3315:LEU:HD12	1.75	0.68
1:C:2988:ARG:HG3	1:C:2989:PRO:HD3	1.75	0.68
1:A:3164:GLY:HA2	1:A:3246:MET:CA	2.24	0.68
1:D:3297:LYS:HE2	3:L:136:GLN:HB2	1.74	0.68
1:B:555:LEU:HD12	1:B:588:ILE:HD11	1.76	0.68
1:C:2930:ILE:O	1:C:3010:LYS:NZ	2.24	0.68
1:C:3312:PRO:HA	1:C:3315:LEU:HD12	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3600:VAL:HG21	3:K:37:MET:HG2	1.74	0.68
1:B:3164:GLY:HA2	1:B:3246:MET:CA	2.24	0.68
1:D:3016:ARG:HH21	1:D:3067:ASP:HB2	1.58	0.68
1:D:3312:PRO:HA	1:D:3315:LEU:HD12	1.75	0.68
1:A:3016:ARG:HH21	1:A:3067:ASP:HB2	1.58	0.68
1:D:4609:LYS:HD2	1:D:4615:LEU:HD22	1.74	0.68
1:B:3165:ALA:CA	1:B:3244:SER:O	2.41	0.68
1:D:2988:ARG:HG3	1:D:2989:PRO:HD3	1.75	0.68
1:B:4609:LYS:HD2	1:B:4615:LEU:HD22	1.75	0.68
1:C:963:LYS:HD2	1:C:977:LYS:HE3	1.74	0.68
1:D:3164:GLY:HA2	1:D:3246:MET:CA	2.24	0.68
1:C:3165:ALA:CA	1:C:3244:SER:O	2.41	0.68
1:C:3297:LYS:HE2	3:K:136:GLN:HB2	1.76	0.68
1:B:126:SER:HA	1:B:414:ARG:HH12	1.58	0.67
3:L:130:ASP:OD1	6:L:204:CA:CA	1.71	0.67
1:A:126:SER:HA	1:A:414:ARG:HH12	1.58	0.67
1:C:126:SER:HA	1:C:414:ARG:HH12	1.58	0.67
1:D:2570:GLU:HG2	1:D:2605:MET:HG3	1.77	0.67
1:D:2781:THR:OG1	1:D:2847:ASN:ND2	2.27	0.67
1:A:555:LEU:HD12	1:A:588:ILE:HD11	1.76	0.67
2:H:58:LYS:HZ3	2:H:81:VAL:HA	1.59	0.67
3:I:130:ASP:OD1	6:I:204:CA:CA	1.71	0.67
1:C:2781:THR:OG1	1:C:2847:ASN:ND2	2.27	0.67
3:K:142:PHE:HA	3:K:145:MET:HE2	1.76	0.67
1:A:2988:ARG:HG3	1:A:2989:PRO:HD3	1.75	0.67
1:A:4694:LEU:HB2	1:D:4268:MET:CE	2.25	0.67
1:C:2570:GLU:HG2	1:C:2605:MET:HG3	1.77	0.67
1:A:4818:TYR:HD1	1:B:4848:ILE:HD11	1.60	0.67
1:C:4609:LYS:HD2	1:C:4615:LEU:HD22	1.74	0.67
1:D:555:LEU:HD12	1:D:588:ILE:HD11	1.75	0.67
1:A:1239:PHE:O	1:A:1807:ARG:NH2	2.28	0.67
1:A:1936:LEU:HD11	1:A:1976:LEU:HD22	1.77	0.67
1:C:878:LEU:HA	1:C:881:ILE:HG22	1.77	0.67
1:C:2308:CYS:SG	1:C:2309:ASN:ND2	2.68	0.67
1:A:2781:THR:OG1	1:A:2847:ASN:ND2	2.27	0.67
2:F:19:LYS:HE2	2:F:19:LYS:HA	1.78	0.67
2:G:58:LYS:HZ3	2:G:81:VAL:HA	1.60	0.67
1:B:2308:CYS:SG	1:B:2309:ASN:ND2	2.68	0.67
1:B:2781:THR:OG1	1:B:2847:ASN:ND2	2.27	0.67
1:D:2308:CYS:SG	1:D:2309:ASN:ND2	2.68	0.67
1:B:2988:ARG:HG3	1:B:2989:PRO:HD3	1.75	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2308:CYS:SG	1:A:2309:ASN:ND2	2.68	0.66
1:A:254:GLU:OE2	1:A:304:LYS:NZ	2.29	0.66
1:C:3604:ARG:HA	3:K:52:MET:HE3	1.76	0.66
1:B:254:GLU:OE2	1:B:304:LYS:NZ	2.29	0.66
1:C:254:GLU:OE2	1:C:304:LYS:NZ	2.29	0.66
1:C:3164:GLY:HA2	1:C:3246:MET:CA	2.24	0.66
1:D:1239:PHE:O	1:D:1807:ARG:NH2	2.28	0.66
1:A:3164:GLY:N	1:A:3244:SER:N	2.40	0.66
1:A:4271:VAL:HG12	1:B:4480:PHE:CZ	2.30	0.66
1:C:1239:PHE:O	1:C:1807:ARG:NH2	2.28	0.66
1:C:3162:PHE:O	1:C:3166:PHE:HB3	1.96	0.66
1:A:3162:PHE:O	1:A:3166:PHE:HB3	1.96	0.66
2:E:19:LYS:HA	2:E:19:LYS:HE2	1.77	0.66
2:G:19:LYS:HE2	2:G:19:LYS:HA	1.77	0.66
1:B:1239:PHE:O	1:B:1807:ARG:NH2	2.28	0.66
1:C:1303:ARG:NH2	1:C:1635:GLU:OE2	2.29	0.66
1:C:3890:TRP:HB3	1:D:76:ARG:HG2	1.76	0.66
1:B:3162:PHE:O	1:B:3166:PHE:HB3	1.96	0.66
1:B:3179:ASN:ND2	1:B:3265:CYS:SG	2.69	0.66
1:C:162:ILE:HD12	1:C:181:LEU:HD23	1.78	0.66
1:C:3179:ASN:ND2	1:C:3265:CYS:SG	2.69	0.66
3:J:130:ASP:OD1	6:J:204:CA:CA	1.71	0.66
2:F:58:LYS:HZ3	2:F:81:VAL:HA	1.61	0.66
1:B:1936:LEU:HD11	1:B:1976:LEU:HD22	1.77	0.66
1:C:882:ARG:O	1:C:886:ALA:N	2.28	0.66
1:C:4617:ILE:HG23	1:C:4665:ARG:HH22	1.61	0.66
1:B:878:LEU:HA	1:B:881:ILE:HG22	1.77	0.66
1:B:1038:LEU:HD21	1:B:1042:THR:HB	1.77	0.66
1:D:254:GLU:OE2	1:D:304:LYS:NZ	2.29	0.66
1:D:1936:LEU:HD11	1:D:1976:LEU:HD22	1.77	0.66
1:D:4617:ILE:HG23	1:D:4665:ARG:HH22	1.61	0.66
1:A:1038:LEU:HD21	1:A:1042:THR:HB	1.77	0.65
1:A:2338:GLU:OE1	1:A:2338:GLU:N	2.29	0.65
1:A:3164:GLY:CA	1:A:3246:MET:N	2.45	0.65
1:C:555:LEU:HD12	1:C:588:ILE:HD11	1.76	0.65
1:C:3192:ARG:CZ	1:C:3197:LEU:HB3	2.26	0.65
1:A:2570:GLU:HG2	1:A:2605:MET:HG3	1.76	0.65
1:B:2570:GLU:HG2	1:B:2605:MET:HG3	1.77	0.65
1:D:878:LEU:HA	1:D:881:ILE:HG22	1.77	0.65
3:K:130:ASP:OD1	6:K:204:CA:CA	1.71	0.65
1:B:1303:ARG:NH2	1:B:1635:GLU:OE2	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2733:SER:O	1:B:2737:LEU:HD13	1.97	0.65
1:B:4617:ILE:HG23	1:B:4665:ARG:HH22	1.61	0.65
1:C:2733:SER:O	1:C:2737:LEU:HD13	1.97	0.65
1:C:3160:ALA:HA	1:C:3241:MET:HA	1.79	0.65
1:D:162:ILE:HD12	1:D:181:LEU:HD23	1.78	0.65
1:A:882:ARG:O	1:A:886:ALA:N	2.28	0.65
2:E:58:LYS:HZ3	2:E:81:VAL:HA	1.61	0.65
1:B:2311:GLU:OE1	1:B:2311:GLU:N	2.30	0.65
1:C:3031:ASN:HA	1:C:3034:HIS:CD2	2.31	0.65
1:D:2338:GLU:OE1	1:D:2338:GLU:N	2.29	0.65
1:D:3179:ASN:ND2	1:D:3265:CYS:SG	2.69	0.65
1:D:3273:MET:N	1:D:3273:MET:SD	2.70	0.65
1:A:1303:ARG:NH2	1:A:1635:GLU:OE2	2.29	0.65
1:A:3273:MET:N	1:A:3273:MET:SD	2.70	0.65
1:A:4617:ILE:HG23	1:A:4665:ARG:HH22	1.61	0.65
2:F:20:GLY:HA2	2:F:53:LYS:NZ	2.12	0.65
1:D:882:ARG:O	1:D:886:ALA:N	2.28	0.65
1:D:2733:SER:O	1:D:2737:LEU:HD13	1.97	0.65
1:A:4268:MET:HE3	1:B:4481:TRP:HZ2	1.62	0.65
2:H:19:LYS:HA	2:H:19:LYS:HE2	1.77	0.65
1:B:2338:GLU:OE1	1:B:2338:GLU:N	2.29	0.65
1:A:3179:ASN:ND2	1:A:3265:CYS:SG	2.69	0.65
1:A:3316:LYS:HA	1:A:3319:PHE:HD1	1.62	0.65
1:D:2935:GLU:HA	1:D:2938:GLN:HG3	1.79	0.65
1:A:162:ILE:HD12	1:A:181:LEU:HD23	1.78	0.65
1:A:2311:GLU:OE1	1:A:2311:GLU:N	2.30	0.65
1:A:2935:GLU:HA	1:A:2938:GLN:HG3	1.79	0.65
1:C:1936:LEU:HD11	1:C:1976:LEU:HD22	1.77	0.65
1:C:2935:GLU:HA	1:C:2938:GLN:HG3	1.79	0.65
1:C:3068:LEU:O	1:C:3071:THR:OG1	2.15	0.65
1:D:2311:GLU:OE1	1:D:2311:GLU:N	2.30	0.65
1:A:878:LEU:HA	1:A:881:ILE:HG22	1.77	0.65
1:A:3068:LEU:O	1:A:3071:THR:OG1	2.15	0.65
1:A:3160:ALA:HA	1:A:3241:MET:HA	1.79	0.65
1:A:3192:ARG:CZ	1:A:3197:LEU:HB3	2.26	0.65
1:D:1038:LEU:HD21	1:D:1042:THR:HB	1.77	0.65
1:A:2733:SER:O	1:A:2737:LEU:HD13	1.97	0.65
1:A:3031:ASN:HA	1:A:3034:HIS:CD2	2.31	0.65
2:E:20:GLY:HA2	2:E:53:LYS:NZ	2.12	0.65
1:C:2311:GLU:OE1	1:C:2311:GLU:N	2.30	0.65
1:D:3031:ASN:HA	1:D:3034:HIS:CD2	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:162:ILE:HD12	1:B:181:LEU:HD23	1.78	0.64
1:B:3942:ASP:OD2	1:C:174:LYS:NZ	2.30	0.64
1:D:3192:ARG:CZ	1:D:3197:LEU:HB3	2.26	0.64
3:J:27:THR:O	6:J:201:CA:CA	1.74	0.64
1:A:4182:GLU:HG3	1:D:4906:GLU:OE2	1.97	0.64
3:I:27:THR:O	6:I:201:CA:CA	1.74	0.64
1:B:2935:GLU:HA	1:B:2938:GLN:HG3	1.79	0.64
1:C:1038:LEU:HD21	1:C:1042:THR:HB	1.77	0.64
1:C:3088:LYS:N	1:C:3091:THR:HG1	1.95	0.64
1:C:3273:MET:N	1:C:3273:MET:SD	2.70	0.64
1:D:1303:ARG:NH2	1:D:1635:GLU:OE2	2.29	0.64
1:D:1415:ASP:OD2	1:D:1559:ARG:NH2	2.31	0.64
2:G:20:GLY:HA2	2:G:53:LYS:NZ	2.12	0.64
1:B:3031:ASN:HA	1:B:3034:HIS:CD2	2.31	0.64
3:K:27:THR:O	6:K:201:CA:CA	1.74	0.64
1:B:891:GLU:HA	1:B:894:VAL:HG22	1.79	0.64
1:B:3160:ALA:HA	1:B:3241:MET:HA	1.79	0.64
1:B:3273:MET:N	1:B:3273:MET:SD	2.70	0.64
1:D:3163:ALA:C	1:D:3241:MET:O	2.36	0.64
1:A:3163:ALA:C	1:A:3241:MET:O	2.36	0.64
1:B:924:LEU:HD12	1:B:925:PRO:HD2	1.79	0.64
1:B:3192:ARG:CZ	1:B:3197:LEU:HB3	2.26	0.64
1:C:891:GLU:HA	1:C:894:VAL:HG22	1.79	0.64
1:B:2788:ARG:HD3	1:B:2908:LYS:NZ	2.13	0.64
1:C:2338:GLU:N	1:C:2338:GLU:OE1	2.29	0.64
1:D:924:LEU:HD12	1:D:925:PRO:HD2	1.79	0.64
1:D:3160:ALA:HA	1:D:3241:MET:HA	1.79	0.64
1:A:3108:LEU:HD12	1:A:3111:HIS:CE1	2.28	0.64
1:A:4520:TYR:CE2	1:A:4559:TYR:HB3	2.33	0.64
1:D:2788:ARG:HD3	1:D:2908:LYS:NZ	2.13	0.64
1:B:3273:MET:HA	1:B:3276:LEU:HG	1.80	0.64
1:C:924:LEU:HD12	1:C:925:PRO:HD2	1.79	0.64
1:D:2711:ILE:O	1:D:2780:LYS:NZ	2.31	0.64
1:D:3316:LYS:HA	1:D:3319:PHE:HD1	1.62	0.64
1:A:1957:LEU:HD21	3:I:42:GLN:NE2	2.12	0.64
1:A:2711:ILE:O	1:A:2780:LYS:NZ	2.31	0.64
1:B:1415:ASP:OD2	1:B:1559:ARG:NH2	2.31	0.64
1:B:3163:ALA:C	1:B:3241:MET:O	2.36	0.64
1:D:3162:PHE:O	1:D:3166:PHE:HB3	1.96	0.64
1:A:679:VAL:HA	1:A:800:VAL:HG12	1.80	0.63
1:A:3273:MET:HA	1:A:3276:LEU:HG	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:20:GLY:HA2	2:H:53:LYS:NZ	2.12	0.63
1:D:891:GLU:HA	1:D:894:VAL:HG22	1.79	0.63
1:A:412:GLU:HG3	1:A:488:LEU:HD11	1.80	0.63
1:A:1415:ASP:OD2	1:A:1559:ARG:NH2	2.31	0.63
1:A:1711:LEU:HD22	1:A:1831:MET:HE1	1.80	0.63
1:B:2798:MET:HB3	1:C:1498:GLN:HE22	1.63	0.63
1:C:1415:ASP:OD2	1:C:1559:ARG:NH2	2.31	0.63
1:C:2788:ARG:HD3	1:C:2908:LYS:NZ	2.13	0.63
1:D:3250:TRP:CD1	1:D:3273:MET:HE3	2.33	0.63
1:D:4520:TYR:CE2	1:D:4559:TYR:HB3	2.33	0.63
1:C:678:MET:SD	1:C:801:ARG:NH2	2.72	0.63
1:C:3164:GLY:CA	1:C:3247:SER:H	2.11	0.63
1:A:2788:ARG:HD3	1:A:2908:LYS:NZ	2.13	0.63
1:A:3164:GLY:CA	1:A:3247:SER:H	2.11	0.63
1:B:2790:GLU:O	1:B:2902:ALA:N	2.30	0.63
1:C:2790:GLU:O	1:C:2902:ALA:N	2.30	0.63
1:D:679:VAL:HA	1:D:800:VAL:HG12	1.80	0.63
1:D:2790:GLU:O	1:D:2902:ALA:N	2.30	0.63
3:L:27:THR:O	6:L:201:CA:CA	1.74	0.63
1:B:412:GLU:HG3	1:B:488:LEU:HD11	1.80	0.63
1:B:3209:PRO:HB2	1:B:3214:LEU:HG	1.81	0.63
1:C:3163:ALA:C	1:C:3241:MET:O	2.36	0.63
1:D:412:GLU:HG3	1:D:488:LEU:HD11	1.80	0.63
1:D:2497:ARG:HD2	1:D:2872:VAL:HG21	1.81	0.63
1:D:3088:LYS:N	1:D:3091:THR:HG1	1.97	0.63
1:D:3209:PRO:HB2	1:D:3214:LEU:HG	1.81	0.63
1:D:3068:LEU:O	1:D:3071:THR:OG1	2.15	0.63
1:A:891:GLU:HA	1:A:894:VAL:HG22	1.79	0.63
1:A:3209:PRO:HB2	1:A:3214:LEU:HG	1.81	0.63
1:C:3164:GLY:CA	1:C:3246:MET:N	2.45	0.63
1:C:3209:PRO:HB2	1:C:3214:LEU:HG	1.81	0.63
1:D:3273:MET:HA	1:D:3276:LEU:HG	1.81	0.63
1:A:2192:MET:HA	1:A:2192:MET:HE3	1.80	0.63
1:A:3165:ALA:N	1:A:3244:SER:CA	2.62	0.63
1:B:281:ARG:HH12	1:B:284:TRP:HB2	1.64	0.63
1:B:3068:LEU:O	1:B:3071:THR:OG1	2.15	0.63
1:C:4520:TYR:CE2	1:C:4559:TYR:HB3	2.33	0.63
1:A:1042:THR:O	1:A:1046:ASN:ND2	2.32	0.63
1:C:2497:ARG:HD2	1:C:2872:VAL:HG21	1.81	0.63
1:D:1042:THR:O	1:D:1046:ASN:ND2	2.32	0.63
1:A:2790:GLU:O	1:A:2902:ALA:N	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:678:MET:SD	1:B:801:ARG:NH2	2.72	0.62
1:B:4520:TYR:CE2	1:B:4559:TYR:HB3	2.33	0.62
1:C:2711:ILE:O	1:C:2780:LYS:NZ	2.31	0.62
1:C:2788:ARG:HD3	1:C:2908:LYS:HZ1	1.63	0.62
1:C:3164:GLY:HA3	1:C:3242:LEU:O	1.99	0.62
1:C:3316:LYS:HA	1:C:3319:PHE:HD1	1.62	0.62
1:D:3165:ALA:N	1:D:3244:SER:CA	2.62	0.62
1:D:3248:ARG:HB3	1:D:3249:TRP:CE3	2.34	0.62
1:A:270:HIS:CD2	1:A:491:GLU:HG3	2.34	0.62
1:A:678:MET:SD	1:A:801:ARG:NH2	2.72	0.62
1:A:924:LEU:HD12	1:A:925:PRO:HD2	1.79	0.62
1:B:2711:ILE:O	1:B:2780:LYS:NZ	2.31	0.62
1:C:281:ARG:HH12	1:C:284:TRP:HB2	1.64	0.62
1:C:3160:ALA:C	1:C:3244:SER:HB3	2.20	0.62
1:C:3273:MET:HA	1:C:3276:LEU:HG	1.80	0.62
1:D:678:MET:SD	1:D:801:ARG:NH2	2.72	0.62
1:A:2497:ARG:HD2	1:A:2872:VAL:HG21	1.81	0.62
1:A:2678:PRO:HD3	1:A:2978:HIS:CE1	2.34	0.62
1:C:188:SER:HB2	1:C:190:ARG:HH11	1.65	0.62
1:D:270:HIS:CD2	1:D:491:GLU:HG3	2.34	0.62
1:D:2678:PRO:HD3	1:D:2978:HIS:CE1	2.34	0.62
1:A:1978:ASN:ND2	1:A:1985:GLU:OE2	2.33	0.62
1:A:3164:GLY:O	1:A:3243:CYS:O	2.18	0.62
1:B:3164:GLY:O	1:B:3243:CYS:O	2.18	0.62
1:B:3165:ALA:N	1:B:3244:SER:CA	2.62	0.62
1:C:3298:ARG:HH12	3:K:133:GLY:HA3	1.63	0.62
1:D:281:ARG:HH12	1:D:284:TRP:HB2	1.64	0.62
1:D:3160:ALA:C	1:D:3244:SER:HB3	2.20	0.62
1:B:270:HIS:CD2	1:B:491:GLU:HG3	2.34	0.62
1:B:1711:LEU:HD22	1:B:1831:MET:HE1	1.80	0.62
1:B:3160:ALA:C	1:B:3244:SER:HB3	2.20	0.62
1:B:3164:GLY:N	1:B:3244:SER:C	2.53	0.62
1:C:1114:ARG:NH1	1:C:1128:LEU:O	2.33	0.62
1:C:3165:ALA:N	1:C:3244:SER:CA	2.62	0.62
1:A:1962:THR:OG1	1:A:1966:ARG:NH1	2.33	0.62
1:B:1042:THR:O	1:B:1046:ASN:ND2	2.32	0.62
1:B:3164:GLY:CA	1:B:3247:SER:H	2.11	0.62
1:C:412:GLU:HG3	1:C:488:LEU:HD11	1.80	0.62
1:D:2592:LEU:HD22	1:D:2606:PRO:HB3	1.81	0.62
1:A:3160:ALA:C	1:A:3244:SER:HB3	2.20	0.62
1:B:882:ARG:O	1:B:886:ALA:N	2.28	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3297:LYS:HE2	3:J:136:GLN:HB2	1.82	0.62
1:C:1711:LEU:HD22	1:C:1831:MET:HE1	1.81	0.62
1:D:1962:THR:OG1	1:D:1966:ARG:NH1	2.33	0.62
1:D:2999:LYS:HA	1:D:3002:GLU:HG3	1.82	0.62
1:A:1114:ARG:NH1	1:A:1128:LEU:O	2.33	0.62
1:A:2592:LEU:HD22	1:A:2606:PRO:HB3	1.81	0.62
1:A:3248:ARG:HB3	1:A:3249:TRP:CE3	2.34	0.62
1:D:3164:GLY:HA3	1:D:3242:LEU:O	2.00	0.62
1:D:4026:LEU:HD13	1:D:4055:HIS:CG	2.35	0.62
1:A:2999:LYS:HA	1:A:3002:GLU:HG3	1.82	0.62
1:B:1114:ARG:NH1	1:B:1128:LEU:O	2.33	0.62
1:B:2497:ARG:HD2	1:B:2872:VAL:HG21	1.81	0.62
1:B:2678:PRO:HD3	1:B:2978:HIS:CE1	2.34	0.62
1:C:1962:THR:OG1	1:C:1966:ARG:NH1	2.33	0.62
1:D:188:SER:HB2	1:D:190:ARG:HH11	1.65	0.62
1:D:1114:ARG:NH1	1:D:1128:LEU:O	2.33	0.62
1:D:1760:ARG:HE	1:D:1762:GLN:HE22	1.48	0.62
1:D:1978:ASN:ND2	1:D:1985:GLU:OE2	2.33	0.62
1:D:3164:GLY:CA	1:D:3247:SER:H	2.11	0.62
1:D:4187:GLU:OE2	1:D:4947:ARG:NH2	2.32	0.62
1:A:2969:PRO:O	1:A:2973:GLN:NE2	2.33	0.62
1:A:3326:LEU:HA	1:A:3329:LYS:HB3	1.82	0.62
1:B:1962:THR:OG1	1:B:1966:ARG:NH1	2.33	0.62
1:B:2592:LEU:HD22	1:B:2606:PRO:HB3	1.81	0.62
1:B:3164:GLY:CA	1:B:3243:CYS:O	2.48	0.62
1:B:3248:ARG:HB3	1:B:3249:TRP:CE3	2.35	0.62
1:B:3316:LYS:HA	1:B:3319:PHE:HD1	1.62	0.62
1:C:679:VAL:HA	1:C:800:VAL:HG12	1.80	0.62
1:C:1978:ASN:ND2	1:C:1985:GLU:OE2	2.33	0.62
1:C:2999:LYS:HA	1:C:3002:GLU:HG3	1.82	0.62
1:C:3164:GLY:O	1:C:3243:CYS:O	2.18	0.62
1:D:1711:LEU:HD22	1:D:1831:MET:HE1	1.80	0.62
1:D:1957:LEU:HD21	3:L:42:GLN:NE2	2.15	0.62
1:A:4698:LEU:HD22	1:D:4259:LEU:HD11	1.82	0.61
1:B:679:VAL:HA	1:B:800:VAL:HG12	1.80	0.61
1:B:3159:LEU:HA	1:B:3162:PHE:CD2	2.35	0.61
1:B:3164:GLY:HA3	1:B:3242:LEU:O	1.99	0.61
1:C:2592:LEU:HD22	1:C:2606:PRO:HB3	1.81	0.61
1:D:2969:PRO:O	1:D:2973:GLN:NE2	2.33	0.61
1:D:3164:GLY:N	1:D:3244:SER:C	2.53	0.61
1:D:3803:LEU:HD22	1:D:3888:PHE:CE2	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:188:SER:HB2	1:A:190:ARG:HH11	1.65	0.61
1:A:3803:LEU:HD22	1:A:3888:PHE:CE2	2.35	0.61
1:A:4187:GLU:OE2	1:A:4947:ARG:NH2	2.32	0.61
1:B:1722:ASN:O	1:B:1919:ARG:NH2	2.33	0.61
1:C:2678:PRO:HD3	1:C:2978:HIS:CE1	2.34	0.61
1:C:4026:LEU:HD13	1:C:4055:HIS:CG	2.35	0.61
1:C:4862:ILE:HD13	1:D:4852:PHE:HE1	1.65	0.61
1:A:3164:GLY:N	1:A:3244:SER:C	2.53	0.61
1:B:188:SER:HB2	1:B:190:ARG:HH11	1.65	0.61
1:C:1760:ARG:HE	1:C:1762:GLN:HE22	1.48	0.61
1:C:3248:ARG:HB3	1:C:3249:TRP:CE3	2.34	0.61
1:C:3803:LEU:HD22	1:C:3888:PHE:CE2	2.35	0.61
1:C:4144:ARG:HB3	1:C:4961:GLN:HE22	1.65	0.61
1:D:2729:HIS:CD2	1:D:2763:LEU:HD11	2.36	0.61
1:A:3159:LEU:HA	1:A:3162:PHE:CD2	2.35	0.61
1:B:2729:HIS:CD2	1:B:2763:LEU:HD11	2.36	0.61
1:B:4026:LEU:HD13	1:B:4055:HIS:CG	2.35	0.61
1:D:3298:ARG:NH1	3:L:132:ASP:O	2.34	0.61
1:A:992:GLN:HE22	1:A:1064:LEU:HD11	1.66	0.61
1:A:4026:LEU:HD13	1:A:4055:HIS:CG	2.35	0.61
1:B:34:LYS:H	1:B:53:SER:HB3	1.65	0.61
1:B:2969:PRO:O	1:B:2973:GLN:NE2	2.33	0.61
1:C:3159:LEU:HA	1:C:3162:PHE:CD2	2.35	0.61
1:C:3164:GLY:N	1:C:3244:SER:C	2.53	0.61
1:D:3164:GLY:CA	1:D:3243:CYS:O	2.48	0.61
1:D:3164:GLY:O	1:D:3243:CYS:O	2.18	0.61
1:D:3313:GLN:HA	1:D:3316:LYS:HG2	1.82	0.61
1:B:2788:ARG:HD3	1:B:2908:LYS:HZ1	1.64	0.61
1:C:992:GLN:HE22	1:C:1064:LEU:HD11	1.66	0.61
1:D:1979:PHE:HE1	1:D:1988:CYS:HB3	1.65	0.61
1:D:3322:LEU:O	1:D:3326:LEU:HB2	2.01	0.61
1:A:281:ARG:HH12	1:A:284:TRP:HB2	1.64	0.61
1:A:605:GLY:HA2	1:A:1585:ARG:HD2	1.83	0.61
1:C:1722:ASN:O	1:C:1919:ARG:NH2	2.33	0.61
1:C:3164:GLY:CA	1:C:3243:CYS:O	2.48	0.61
1:D:3295:TRP:HA	1:D:3298:ARG:CG	2.30	0.61
1:D:4144:ARG:HB3	1:D:4961:GLN:HE22	1.65	0.61
1:A:3163:ALA:CA	1:A:3245:TYR:N	2.62	0.61
1:A:3313:GLN:HA	1:A:3316:LYS:HG2	1.82	0.61
1:B:1979:PHE:HE1	1:B:1988:CYS:HB3	1.65	0.61
1:B:3118:GLY:O	1:B:3122:ILE:HG12	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:270:HIS:CD2	1:C:491:GLU:HG3	2.34	0.61
1:C:2969:PRO:O	1:C:2973:GLN:NE2	2.33	0.61
1:D:3163:ALA:CA	1:D:3245:TYR:N	2.61	0.61
1:A:2729:HIS:CD2	1:A:2763:LEU:HD11	2.36	0.61
1:A:3164:GLY:HA3	1:A:3243:CYS:C	2.21	0.61
1:B:3326:LEU:HA	1:B:3329:LYS:HB3	1.82	0.61
1:C:3164:GLY:N	1:C:3241:MET:O	2.34	0.61
1:C:3322:LEU:O	1:C:3326:LEU:HB2	2.01	0.61
1:D:1414:ARG:NH1	1:D:1415:ASP:O	2.34	0.61
1:A:1979:PHE:HE1	1:A:1988:CYS:HB3	1.65	0.61
1:A:3088:LYS:N	1:A:3091:THR:HG1	1.99	0.61
1:A:3118:GLY:O	1:A:3122:ILE:HG12	2.01	0.61
1:A:3163:ALA:N	1:A:3245:TYR:H	1.99	0.61
1:A:3164:GLY:HA3	1:A:3242:LEU:O	2.00	0.61
1:A:4287:TYR:HE1	1:B:4591:TYR:CD2	2.19	0.61
1:B:3164:GLY:HA3	1:B:3243:CYS:C	2.21	0.61
1:C:2730:ASP:O	1:C:2734:MET:HG3	2.01	0.61
1:D:952:ILE:HA	1:D:1062:TYR:HA	1.82	0.61
1:B:952:ILE:HA	1:B:1062:TYR:HA	1.82	0.60
1:B:1978:ASN:ND2	1:B:1985:GLU:OE2	2.33	0.60
1:B:2732:TRP:CD1	1:B:2736:LYS:HE3	2.36	0.60
1:B:3322:LEU:O	1:B:3326:LEU:HB2	2.01	0.60
1:B:3596:LYS:HE2	3:J:19:LEU:HB3	1.82	0.60
1:B:3803:LEU:HD22	1:B:3888:PHE:CE2	2.35	0.60
1:C:235:ARG:NH2	1:C:412:GLU:OE1	2.34	0.60
1:C:2055:SER:O	1:C:2060:GLN:NE2	2.34	0.60
1:D:235:ARG:NH2	1:D:412:GLU:OE1	2.34	0.60
1:D:605:GLY:HA2	1:D:1585:ARG:HD2	1.83	0.60
1:D:1722:ASN:O	1:D:1919:ARG:NH2	2.33	0.60
1:A:3322:LEU:O	1:A:3326:LEU:HB2	2.01	0.60
1:A:4864:GLY:CA	1:D:4867:ILE:HG12	2.30	0.60
1:B:3161:ALA:O	1:B:3166:PHE:HB2	2.01	0.60
1:B:3164:GLY:N	1:B:3241:MET:O	2.34	0.60
1:C:114:LEU:HB2	1:C:117:HIS:CE1	2.37	0.60
1:C:3326:LEU:HA	1:C:3329:LYS:HB3	1.82	0.60
1:C:4187:GLU:OE2	1:C:4947:ARG:NH2	2.32	0.60
1:D:114:LEU:HB2	1:D:117:HIS:CE1	2.37	0.60
1:A:1722:ASN:O	1:A:1919:ARG:NH2	2.33	0.60
1:A:1760:ARG:HE	1:A:1762:GLN:HE22	1.48	0.60
1:A:3164:GLY:CA	1:A:3243:CYS:O	2.48	0.60
1:A:4707:MET:HG3	1:D:4252:ILE:HG21	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1760:ARG:HE	1:B:1762:GLN:HE22	1.48	0.60
1:B:2999:LYS:HA	1:B:3002:GLU:HG3	1.82	0.60
1:C:988:LEU:HB2	1:C:1055:ARG:HH21	1.67	0.60
1:D:3164:GLY:N	1:D:3241:MET:O	2.34	0.60
1:A:114:LEU:HB2	1:A:117:HIS:CE1	2.37	0.60
1:A:670:TYR:O	1:A:673:TRP:NE1	2.35	0.60
1:A:952:ILE:HA	1:A:1062:TYR:HA	1.82	0.60
1:A:992:GLN:HA	1:A:995:MET:HE3	1.83	0.60
1:C:1042:THR:O	1:C:1046:ASN:ND2	2.32	0.60
1:C:1979:PHE:HE1	1:C:1988:CYS:HB3	1.65	0.60
1:C:2732:TRP:CD1	1:C:2736:LYS:HE3	2.36	0.60
1:C:3295:TRP:HA	1:C:3298:ARG:CG	2.30	0.60
1:C:3313:GLN:HA	1:C:3316:LYS:HG2	1.82	0.60
1:D:3118:GLY:O	1:D:3122:ILE:HG12	2.01	0.60
1:D:3161:ALA:O	1:D:3166:PHE:HB2	2.01	0.60
1:B:114:LEU:HB2	1:B:117:HIS:CE1	2.37	0.60
1:B:992:GLN:HE22	1:B:1064:LEU:HD11	1.66	0.60
1:B:2730:ASP:O	1:B:2734:MET:HG3	2.01	0.60
1:B:3108:LEU:HD12	1:B:3111:HIS:CE1	2.28	0.60
1:D:3891:TYR:O	1:D:3895:LYS:NZ	2.34	0.60
1:A:34:LYS:H	1:A:53:SER:HB3	1.66	0.60
1:A:3295:TRP:HA	1:A:3298:ARG:CG	2.30	0.60
1:A:4144:ARG:HB3	1:A:4961:GLN:HE22	1.65	0.60
1:B:3319:PHE:HD2	1:B:3323:MET:CE	2.15	0.60
1:C:2729:HIS:CD2	1:C:2763:LEU:HD11	2.36	0.60
1:C:3306:ILE:O	1:C:3310:VAL:HG23	2.02	0.60
1:C:3319:PHE:HD2	1:C:3323:MET:CE	2.15	0.60
1:C:4045:LYS:H	1:C:4076:GLU:HB3	1.67	0.60
1:D:670:TYR:O	1:D:673:TRP:NE1	2.35	0.60
1:A:2732:TRP:CD1	1:A:2736:LYS:HE3	2.36	0.60
1:A:3161:ALA:O	1:A:3166:PHE:HB2	2.01	0.60
1:A:3164:GLY:N	1:A:3241:MET:O	2.34	0.60
1:A:3306:ILE:O	1:A:3310:VAL:HG23	2.02	0.60
1:B:3163:ALA:N	1:B:3245:TYR:H	1.99	0.60
1:B:3250:TRP:CD1	1:B:3273:MET:HE3	2.37	0.60
1:C:3161:ALA:O	1:C:3166:PHE:HB2	2.01	0.60
1:D:874:LEU:HD12	1:D:875:PRO:HD2	1.84	0.60
1:D:3159:LEU:HA	1:D:3162:PHE:CD2	2.35	0.60
1:D:4040:LYS:NZ	1:D:4042:VAL:O	2.35	0.60
1:A:988:LEU:HB2	1:A:1055:ARG:HH21	1.67	0.60
1:A:3891:TYR:O	1:A:3895:LYS:NZ	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4011:GLU:HG3	1:A:4015:LYS:NZ	2.17	0.60
1:C:3298:ARG:NH1	3:K:132:ASP:O	2.35	0.60
1:C:4011:GLU:HG3	1:C:4015:LYS:NZ	2.17	0.60
1:D:895:MET:HE3	1:D:979:ALA:H	1.66	0.60
1:D:2732:TRP:CD1	1:D:2736:LYS:HE3	2.36	0.60
1:D:3326:LEU:HA	1:D:3329:LYS:HB3	1.82	0.60
1:A:235:ARG:NH2	1:A:412:GLU:OE1	2.34	0.60
1:B:235:ARG:NH2	1:B:412:GLU:OE1	2.34	0.60
1:C:670:TYR:O	1:C:673:TRP:NE1	2.35	0.60
1:C:952:ILE:HA	1:C:1062:TYR:HA	1.82	0.60
1:C:3118:GLY:O	1:C:3122:ILE:HG12	2.01	0.60
1:C:4040:LYS:NZ	1:C:4042:VAL:O	2.35	0.60
1:D:988:LEU:HB2	1:D:1055:ARG:HH21	1.67	0.60
1:D:2055:SER:O	1:D:2060:GLN:NE2	2.34	0.60
1:D:3319:PHE:HD2	1:D:3323:MET:CE	2.15	0.60
1:D:3925:GLN:HE21	1:D:4934:THR:HA	1.67	0.60
1:D:4011:GLU:HG3	1:D:4015:LYS:NZ	2.17	0.60
1:B:1414:ARG:NH1	1:B:1415:ASP:O	2.34	0.60
1:B:4144:ARG:HB3	1:B:4961:GLN:HE22	1.66	0.60
1:D:2730:ASP:O	1:D:2734:MET:HG3	2.01	0.60
1:D:3164:GLY:HA3	1:D:3243:CYS:C	2.21	0.60
1:A:3925:GLN:HE21	1:A:4934:THR:HA	1.67	0.59
1:B:605:GLY:HA2	1:B:1585:ARG:HD2	1.83	0.59
1:C:3891:TYR:O	1:C:3895:LYS:NZ	2.34	0.59
1:A:874:LEU:HD12	1:A:875:PRO:HD2	1.84	0.59
1:A:1414:ARG:NH1	1:A:1415:ASP:O	2.34	0.59
1:B:4045:LYS:H	1:B:4076:GLU:HB3	1.67	0.59
1:C:3163:ALA:N	1:C:3245:TYR:H	1.99	0.59
1:C:3164:GLY:C	1:C:3244:SER:CA	2.70	0.59
1:B:670:TYR:O	1:B:673:TRP:NE1	2.35	0.59
1:B:3088:LYS:N	1:B:3091:THR:HG1	2.00	0.59
1:B:4011:GLU:HG3	1:B:4015:LYS:NZ	2.17	0.59
1:C:1414:ARG:NH1	1:C:1415:ASP:O	2.34	0.59
1:C:2773:TRP:HB3	1:C:2774:PRO:HD3	1.84	0.59
1:D:1035:TYR:O	1:D:1043:LYS:NZ	2.25	0.59
1:D:2773:TRP:HB3	1:D:2774:PRO:HD3	1.84	0.59
1:B:3173:THR:HA	1:B:3176:ASP:HB2	1.85	0.59
1:B:3891:TYR:O	1:B:3895:LYS:NZ	2.34	0.59
1:C:34:LYS:H	1:C:53:SER:HB3	1.65	0.59
1:C:1436:GLN:O	1:C:1500:ARG:NH2	2.36	0.59
1:D:3148:VAL:HA	1:D:3151:GLN:HG2	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2905:ARG:HH11	1:A:2906:GLY:H	1.51	0.59
1:A:3161:ALA:O	1:A:3244:SER:C	2.41	0.59
1:A:3173:THR:HA	1:A:3176:ASP:HB2	1.85	0.59
1:A:4829:ASP:OD1	1:D:4822:ARG:NH1	2.36	0.59
1:B:2055:SER:O	1:B:2060:GLN:NE2	2.34	0.59
1:B:3148:VAL:HA	1:B:3151:GLN:HG2	1.85	0.59
1:B:3313:GLN:HA	1:B:3316:LYS:HG2	1.82	0.59
1:B:3925:GLN:HE21	1:B:4934:THR:HA	1.67	0.59
1:C:2214:MET:HE2	1:C:2214:MET:HA	1.83	0.59
1:C:3164:GLY:HA3	1:C:3243:CYS:C	2.21	0.59
1:A:2773:TRP:HB3	1:A:2774:PRO:HD3	1.84	0.59
1:B:2773:TRP:HB3	1:B:2774:PRO:HD3	1.84	0.59
1:C:874:LEU:HD12	1:C:875:PRO:HD2	1.84	0.59
1:C:3148:VAL:HA	1:C:3151:GLN:HG2	1.85	0.59
1:D:992:GLN:HE22	1:D:1064:LEU:HD11	1.66	0.59
1:D:992:GLN:HA	1:D:995:MET:HE3	1.85	0.59
1:B:874:LEU:HD12	1:B:875:PRO:HD2	1.84	0.59
1:B:3295:TRP:HA	1:B:3298:ARG:CG	2.31	0.59
1:C:2831:VAL:HG22	1:D:1435:GLY:HA2	1.84	0.59
1:C:3108:LEU:HD12	1:C:3111:HIS:CE1	2.28	0.59
1:D:3164:GLY:CA	1:D:3243:CYS:C	2.71	0.59
1:A:3148:VAL:HA	1:A:3151:GLN:HG2	1.85	0.59
1:A:3164:GLY:CA	1:A:3243:CYS:C	2.71	0.59
1:A:3166:PHE:CD1	1:A:3167:PRO:HD2	2.38	0.59
1:B:3164:GLY:CA	1:B:3243:CYS:C	2.71	0.59
1:B:3166:PHE:CD1	1:B:3167:PRO:HD2	2.38	0.59
1:D:1436:GLN:O	1:D:1500:ARG:NH2	2.36	0.59
1:A:4040:LYS:NZ	1:A:4042:VAL:O	2.35	0.59
1:B:988:LEU:HB2	1:B:1055:ARG:HH21	1.67	0.59
1:B:1436:GLN:O	1:B:1500:ARG:NH2	2.36	0.59
1:B:2905:ARG:HH11	1:B:2906:GLY:H	1.51	0.59
1:C:3164:GLY:CA	1:C:3243:CYS:C	2.71	0.59
1:C:3173:THR:HA	1:C:3176:ASP:HB2	1.85	0.59
1:D:3163:ALA:N	1:D:3245:TYR:H	1.99	0.59
1:D:3173:THR:HA	1:D:3176:ASP:HB2	1.85	0.59
1:D:3306:ILE:O	1:D:3310:VAL:HG23	2.02	0.59
1:D:3591:LEU:HD21	3:L:86:ILE:HG12	1.85	0.59
1:A:23:GLN:NE2	1:A:36:CYS:SG	2.76	0.59
1:A:1989:PRO:HD2	1:A:1992:ILE:HD12	1.85	0.59
1:A:2545:ILE:HG12	1:A:2580:LEU:HD21	1.84	0.59
1:A:2836:ASP:O	1:A:2840:MET:HG2	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4040:LYS:NZ	1:B:4042:VAL:O	2.35	0.59
1:A:3319:PHE:HD2	1:A:3323:MET:CE	2.15	0.58
2:G:76:THR:HG23	2:G:99:ILE:HG13	1.85	0.58
1:B:4187:GLU:OE2	1:B:4947:ARG:NH2	2.32	0.58
1:C:3161:ALA:O	1:C:3244:SER:C	2.41	0.58
1:C:3165:ALA:CA	1:C:3248:ARG:N	2.66	0.58
1:C:3166:PHE:CD1	1:C:3167:PRO:HD2	2.38	0.58
1:D:34:LYS:H	1:D:53:SER:HB3	1.66	0.58
1:D:3165:ALA:CA	1:D:3248:ARG:N	2.66	0.58
1:B:2651:ALA:O	1:B:2655:LYS:HB2	2.03	0.58
1:B:2836:ASP:O	1:B:2840:MET:HG2	2.03	0.58
1:C:605:GLY:HA2	1:C:1585:ARG:HD2	1.83	0.58
1:C:2836:ASP:O	1:C:2840:MET:HG2	2.03	0.58
1:D:3161:ALA:O	1:D:3244:SER:C	2.41	0.58
1:D:3164:GLY:C	1:D:3244:SER:CA	2.70	0.58
1:D:4045:LYS:H	1:D:4076:GLU:HB3	1.67	0.58
1:A:1436:GLN:O	1:A:1500:ARG:NH2	2.36	0.58
1:A:2730:ASP:O	1:A:2734:MET:HG3	2.01	0.58
1:A:4056:LYS:HE3	1:B:4660:PHE:HA	1.85	0.58
1:B:23:GLN:NE2	1:B:36:CYS:SG	2.76	0.58
1:C:23:GLN:NE2	1:C:36:CYS:SG	2.76	0.58
1:C:2651:ALA:O	1:C:2655:LYS:HB2	2.03	0.58
1:D:23:GLN:NE2	1:D:36:CYS:SG	2.76	0.58
1:A:2935:GLU:HB2	1:A:2938:GLN:HE21	1.69	0.58
1:B:2545:ILE:HG12	1:B:2580:LEU:HD21	1.84	0.58
1:B:3306:ILE:O	1:B:3310:VAL:HG23	2.02	0.58
1:D:2935:GLU:HB2	1:D:2938:GLN:HE21	1.69	0.58
1:D:4082:GLU:OE1	1:D:4086:ARG:NE	2.35	0.58
1:A:2651:ALA:O	1:A:2655:LYS:HB2	2.03	0.58
1:A:3164:GLY:CA	1:A:3245:TYR:C	2.72	0.58
1:B:3161:ALA:O	1:B:3244:SER:C	2.41	0.58
1:C:992:GLN:HA	1:C:995:MET:HE3	1.85	0.58
1:C:1979:PHE:CD1	1:C:1993:ARG:HG2	2.39	0.58
1:C:3250:TRP:CD1	1:C:3273:MET:HE3	2.39	0.58
1:C:4102:LEU:HD21	1:C:4118:PHE:HE2	1.69	0.58
1:D:2651:ALA:O	1:D:2655:LYS:HB2	2.03	0.58
1:D:3166:PHE:CD1	1:D:3167:PRO:HD2	2.38	0.58
1:A:1041:ARG:HA	1:A:1044:LYS:NZ	2.19	0.58
1:A:4045:LYS:H	1:A:4076:GLU:HB3	1.67	0.58
2:H:83:TYR:HB3	2:H:87:GLY:HA2	1.86	0.58
1:B:4277:LYS:HE3	1:B:4277:LYS:HA	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3163:ALA:CA	1:C:3245:TYR:N	2.62	0.58
1:C:3165:ALA:C	1:C:3244:SER:O	2.42	0.58
1:C:3925:GLN:HE21	1:C:4934:THR:HA	1.67	0.58
1:A:3058:ARG:CZ	1:A:3126:VAL:HB	2.33	0.58
1:A:3165:ALA:CA	1:A:3248:ARG:N	2.66	0.58
2:E:83:TYR:HB3	2:E:87:GLY:HA2	1.86	0.58
2:F:76:THR:HG23	2:F:99:ILE:HG13	1.85	0.58
2:F:83:TYR:HB3	2:F:87:GLY:HA2	1.86	0.58
1:B:307:SER:HB3	1:B:327:THR:HG22	1.86	0.58
1:B:2192:MET:HA	1:B:2192:MET:HE3	1.84	0.58
1:B:3890:TRP:HB3	1:C:76:ARG:HG2	1.85	0.58
1:D:2545:ILE:HG12	1:D:2580:LEU:HD21	1.84	0.58
1:D:3058:ARG:CZ	1:D:3126:VAL:HB	2.33	0.58
1:A:1979:PHE:CD1	1:A:1993:ARG:HG2	2.39	0.58
1:A:3165:ALA:C	1:A:3244:SER:O	2.42	0.58
1:B:2874:TYR:HA	1:B:2877:LEU:HD12	1.86	0.58
1:C:2119:LEU:HB2	1:C:2152:ASN:HD22	1.69	0.58
1:C:2545:ILE:HG12	1:C:2580:LEU:HD21	1.84	0.58
1:D:4277:LYS:HA	1:D:4277:LYS:HE3	1.85	0.58
1:A:2119:LEU:HB2	1:A:2152:ASN:HD22	1.69	0.58
1:A:4082:GLU:OE1	1:A:4086:ARG:NE	2.35	0.58
2:G:83:TYR:HB3	2:G:87:GLY:HA2	1.86	0.58
1:B:1979:PHE:CD1	1:B:1993:ARG:HG2	2.39	0.58
1:C:2874:TYR:HA	1:C:2877:LEU:HD12	1.86	0.58
1:C:3183:ILE:HG13	1:C:3187:LYS:NZ	2.19	0.58
1:D:1989:PRO:HD2	1:D:1992:ILE:HD12	1.85	0.58
1:B:4102:LEU:HD21	1:B:4118:PHE:HE2	1.68	0.58
1:C:307:SER:HB3	1:C:327:THR:HG22	1.86	0.58
1:C:514:PHE:HD2	1:C:526:TRP:HB2	1.69	0.58
1:D:514:PHE:HD2	1:D:526:TRP:HB2	1.69	0.58
1:D:1041:ARG:HA	1:D:1044:LYS:NZ	2.19	0.58
1:D:3183:ILE:HG13	1:D:3187:LYS:NZ	2.19	0.58
1:D:3252:HIS:CE1	1:D:3260:ARG:HH12	2.22	0.58
1:D:4102:LEU:HD21	1:D:4118:PHE:HE2	1.69	0.58
1:A:2232:PRO:HG3	1:A:2382:ILE:HD11	1.86	0.57
1:A:4102:LEU:HD21	1:A:4118:PHE:HE2	1.69	0.57
1:B:3058:ARG:CZ	1:B:3126:VAL:HB	2.33	0.57
1:B:3140:LEU:HB3	1:B:3155:LEU:HD21	1.86	0.57
1:C:3252:HIS:CE1	1:C:3260:ARG:HH12	2.22	0.57
1:C:3284:ILE:HA	1:C:3287:ASN:HB2	1.86	0.57
1:D:2192:MET:HA	1:D:2192:MET:HE3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:307:SER:HB3	1:A:327:THR:HG22	1.86	0.57
1:B:514:PHE:HD2	1:B:526:TRP:HB2	1.69	0.57
1:C:1269:GLU:HB2	1:C:1288:LYS:HE3	1.87	0.57
1:C:3164:GLY:CA	1:C:3245:TYR:C	2.72	0.57
1:C:3298:ARG:NH2	3:K:133:GLY:C	2.57	0.57
1:D:2119:LEU:HB2	1:D:2152:ASN:HD22	1.69	0.57
1:A:2055:SER:O	1:A:2060:GLN:NE2	2.34	0.57
1:A:2232:PRO:HG2	1:A:2380:ASP:HA	1.86	0.57
1:A:3183:ILE:HG13	1:A:3187:LYS:NZ	2.19	0.57
1:B:520:ARG:NH1	1:B:524:GLU:OE1	2.37	0.57
1:B:1269:GLU:HB2	1:B:1288:LYS:HE3	1.86	0.57
1:B:2935:GLU:HB2	1:B:2938:GLN:HE21	1.69	0.57
1:C:2232:PRO:HG2	1:C:2380:ASP:HA	1.86	0.57
1:C:3058:ARG:CZ	1:C:3126:VAL:HB	2.33	0.57
1:C:3140:LEU:HB3	1:C:3155:LEU:HD21	1.86	0.57
1:C:4082:GLU:OE1	1:C:4086:ARG:NE	2.35	0.57
1:C:4277:LYS:HA	1:C:4277:LYS:HE3	1.85	0.57
1:B:3163:ALA:CA	1:B:3245:TYR:N	2.61	0.57
1:C:520:ARG:NH1	1:C:524:GLU:OE1	2.37	0.57
1:C:1989:PRO:HD2	1:C:1992:ILE:HD12	1.85	0.57
1:D:2836:ASP:O	1:D:2840:MET:HG2	2.03	0.57
1:D:2905:ARG:HH11	1:D:2906:GLY:H	1.51	0.57
1:A:1269:GLU:HB2	1:A:1288:LYS:HE3	1.86	0.57
1:A:4654:MET:HE3	1:A:4663:ARG:HE	1.70	0.57
2:F:20:GLY:HA2	2:F:53:LYS:HZ2	1.68	0.57
2:H:76:THR:HG23	2:H:99:ILE:HG13	1.85	0.57
1:D:1979:PHE:CD1	1:D:1993:ARG:HG2	2.39	0.57
1:A:829:LYS:HZ1	1:A:1037:LEU:HD13	1.70	0.57
1:A:3269:ASN:O	1:A:3273:MET:HE1	2.05	0.57
1:A:3661:VAL:HG23	1:A:3666:GLN:HG2	1.87	0.57
1:A:3803:LEU:HD22	1:A:3888:PHE:HE2	1.70	0.57
1:B:1041:ARG:HA	1:B:1044:LYS:NZ	2.19	0.57
1:B:1989:PRO:HD2	1:B:1992:ILE:HD12	1.85	0.57
1:B:2232:PRO:HG3	1:B:2382:ILE:HD11	1.86	0.57
1:B:3164:GLY:C	1:B:3244:SER:CA	2.70	0.57
1:B:3165:ALA:C	1:B:3244:SER:O	2.42	0.57
1:C:2935:GLU:HB2	1:C:2938:GLN:HE21	1.69	0.57
1:D:1269:GLU:HB2	1:D:1288:LYS:HE3	1.86	0.57
1:D:2232:PRO:HG2	1:D:2380:ASP:HA	1.86	0.57
1:A:2214:MET:HE2	1:A:2214:MET:HA	1.87	0.57
1:C:1035:TYR:O	1:C:1043:LYS:NZ	2.25	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1041:ARG:HA	1:C:1044:LYS:NZ	2.19	0.57
1:C:2005:THR:OG1	1:C:2010:GLU:OE1	2.23	0.57
1:C:3661:VAL:HG23	1:C:3666:GLN:HG2	1.87	0.57
1:D:3298:ARG:HH22	3:L:133:GLY:C	2.08	0.57
1:D:3803:LEU:HD22	1:D:3888:PHE:HE2	1.70	0.57
1:A:15:ARG:HD3	1:A:110:HIS:HB3	1.87	0.57
1:A:2980:LEU:HD21	1:A:2989:PRO:HB2	1.87	0.57
1:A:4694:LEU:HD22	1:D:4268:MET:HE2	1.87	0.57
1:B:2119:LEU:HB2	1:B:2152:ASN:HD22	1.69	0.57
1:B:3164:GLY:CA	1:B:3245:TYR:C	2.72	0.57
1:C:895:MET:HE3	1:C:979:ALA:H	1.69	0.57
1:C:2550:HIS:CE1	1:C:2875:ASP:HB3	2.40	0.57
1:D:307:SER:HB3	1:D:327:THR:HG22	1.86	0.57
1:D:520:ARG:NH1	1:D:524:GLU:OE1	2.37	0.57
2:E:76:THR:HG23	2:E:99:ILE:HG13	1.85	0.57
1:B:52:THR:HG22	1:B:60:PRO:HB3	1.86	0.57
1:B:2980:LEU:HD21	1:B:2989:PRO:HB2	1.87	0.57
1:B:3183:ILE:HG13	1:B:3187:LYS:NZ	2.19	0.57
1:B:3284:ILE:HA	1:B:3287:ASN:HB2	1.86	0.57
1:C:2232:PRO:HG3	1:C:2382:ILE:HD11	1.86	0.57
1:C:3164:GLY:CA	1:C:3242:LEU:O	2.53	0.57
1:C:3803:LEU:HD22	1:C:3888:PHE:HE2	1.70	0.57
1:D:3108:LEU:HD12	1:D:3111:HIS:CE1	2.28	0.57
1:D:3661:VAL:HG23	1:D:3666:GLN:HG2	1.87	0.57
1:A:3140:LEU:HB3	1:A:3155:LEU:HD21	1.86	0.57
1:B:3252:HIS:CE1	1:B:3260:ARG:HH12	2.22	0.57
1:B:3661:VAL:HG23	1:B:3666:GLN:HG2	1.87	0.57
1:C:3164:GLY:H	1:C:3244:SER:CA	2.18	0.57
1:D:3602:CYS:HB2	3:L:76:LYS:HG3	1.87	0.57
1:A:988:LEU:HB2	1:A:1055:ARG:HE	1.70	0.56
1:A:1471:ASP:OD1	1:A:1475:LYS:N	2.38	0.56
1:A:3252:HIS:CE1	1:A:3260:ARG:HH12	2.22	0.56
1:A:4277:LYS:HA	1:A:4277:LYS:HE3	1.85	0.56
1:B:3697:LYS:HA	1:B:3700:HIS:CD2	2.40	0.56
1:C:2905:ARG:HH11	1:C:2906:GLY:H	1.51	0.56
1:D:807:ARG:NH1	1:D:807:ARG:HB2	2.21	0.56
1:D:1960:ARG:HA	1:D:1963:LYS:HB2	1.87	0.56
1:D:2550:HIS:CE1	1:D:2875:ASP:HB3	2.40	0.56
1:D:2874:TYR:HA	1:D:2877:LEU:HD12	1.86	0.56
1:D:3284:ILE:HA	1:D:3287:ASN:HB2	1.86	0.56
1:A:3298:ARG:HH12	3:I:133:GLY:HA3	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1471:ASP:OD1	1:B:1475:LYS:N	2.39	0.56
1:B:3164:GLY:CA	1:B:3242:LEU:O	2.53	0.56
1:B:4654:MET:HE3	1:B:4663:ARG:HE	1.70	0.56
1:C:1960:ARG:HA	1:C:1963:LYS:HB2	1.87	0.56
1:D:587:ASN:HD21	1:D:2133:ARG:HD2	1.70	0.56
1:D:3165:ALA:C	1:D:3244:SER:O	2.42	0.56
1:A:520:ARG:NH1	1:A:524:GLU:OE1	2.37	0.56
1:A:2830:ASN:ND2	1:B:1434:PRO:O	2.38	0.56
1:A:3164:GLY:C	1:A:3244:SER:CA	2.70	0.56
1:A:3284:ILE:HA	1:A:3287:ASN:HB2	1.86	0.56
1:A:3697:LYS:HA	1:A:3700:HIS:CD2	2.40	0.56
1:B:587:ASN:HD21	1:B:2133:ARG:HD2	1.70	0.56
1:B:807:ARG:NH1	1:B:807:ARG:HB2	2.21	0.56
1:B:992:GLN:HA	1:B:995:MET:HE3	1.86	0.56
1:B:2232:PRO:HG2	1:B:2380:ASP:HA	1.86	0.56
1:B:2550:HIS:CE1	1:B:2875:ASP:HB3	2.40	0.56
1:B:3164:GLY:H	1:B:3244:SER:CA	2.18	0.56
1:B:3803:LEU:HD22	1:B:3888:PHE:HE2	1.70	0.56
1:B:4518:LEU:O	1:C:4809:MET:HB3	2.05	0.56
1:C:1100:ARG:HH12	1:C:1235:GLY:HA3	1.71	0.56
1:C:1559:ARG:HD2	1:C:1565:PRO:HD3	1.87	0.56
1:C:3113:GLY:HA2	1:C:3248:ARG:HH22	1.71	0.56
1:D:2232:PRO:HG3	1:D:2382:ILE:HD11	1.86	0.56
1:D:3140:LEU:HB3	1:D:3155:LEU:HD21	1.86	0.56
1:A:52:THR:HG22	1:A:60:PRO:HB3	1.86	0.56
1:B:988:LEU:HB2	1:B:1055:ARG:HE	1.70	0.56
1:B:3298:ARG:NH1	3:J:132:ASP:O	2.39	0.56
1:C:587:ASN:HD21	1:C:2133:ARG:HD2	1.70	0.56
1:D:3697:LYS:HA	1:D:3700:HIS:CD2	2.40	0.56
1:A:2550:HIS:CE1	1:A:2875:ASP:HB3	2.40	0.56
2:E:58:LYS:NZ	2:E:81:VAL:HA	2.21	0.56
1:B:4268:MET:CE	1:C:4694:LEU:HD13	2.36	0.56
1:D:3164:GLY:H	1:D:3244:SER:CA	2.18	0.56
1:B:1100:ARG:HH12	1:B:1235:GLY:HA3	1.71	0.56
1:B:2627:TRP:HB2	1:B:2630:PHE:HB2	1.87	0.56
1:B:3245:TYR:CD1	1:B:3249:TRP:CZ3	2.94	0.56
1:D:988:LEU:HB2	1:D:1055:ARG:HE	1.70	0.56
1:D:3164:GLY:CA	1:D:3245:TYR:C	2.72	0.56
1:D:3166:PHE:CE2	1:D:3168:VAL:HG22	2.41	0.56
1:A:2005:THR:OG1	1:A:2010:GLU:OE1	2.23	0.56
1:A:3322:LEU:HB3	1:A:3323:MET:HE2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1559:ARG:HD2	1:B:1565:PRO:HD3	1.87	0.56
1:B:3165:ALA:CA	1:B:3248:ARG:N	2.66	0.56
1:C:1471:ASP:OD1	1:C:1475:LYS:N	2.38	0.56
1:C:2980:LEU:HD21	1:C:2989:PRO:HB2	1.87	0.56
1:C:3322:LEU:HB3	1:C:3323:MET:HE2	1.87	0.56
1:D:15:ARG:HD3	1:D:110:HIS:HB3	1.87	0.56
1:D:52:THR:HG22	1:D:60:PRO:HB3	1.86	0.56
1:D:1100:ARG:HH12	1:D:1235:GLY:HA3	1.71	0.56
1:A:2874:TYR:HA	1:A:2877:LEU:HD12	1.86	0.56
1:A:3164:GLY:CA	1:A:3242:LEU:O	2.53	0.56
1:C:15:ARG:HD3	1:C:110:HIS:HB3	1.87	0.56
1:C:52:THR:HG22	1:C:60:PRO:HB3	1.86	0.56
1:C:876:PRO:HA	1:C:879:GLU:HG2	1.88	0.56
1:C:3164:GLY:C	1:C:3244:SER:C	2.65	0.56
1:C:4654:MET:HE3	1:C:4663:ARG:HE	1.70	0.56
1:D:3245:TYR:CD1	1:D:3249:TRP:CZ3	2.94	0.56
1:A:807:ARG:NH1	1:A:807:ARG:HB2	2.20	0.56
1:A:876:PRO:HA	1:A:879:GLU:HG2	1.88	0.56
2:F:58:LYS:NZ	2:F:81:VAL:HA	2.21	0.56
1:B:1287:GLN:HG2	1:B:1290:PHE:HB2	1.88	0.56
1:B:1960:ARG:HA	1:B:1963:LYS:HB2	1.87	0.56
1:D:1559:ARG:HD2	1:D:1565:PRO:HD3	1.87	0.56
1:D:2005:THR:OG1	1:D:2010:GLU:OE1	2.23	0.56
1:A:1960:ARG:HA	1:A:1963:LYS:HB2	1.87	0.56
1:A:3164:GLY:H	1:A:3244:SER:CA	2.18	0.56
1:A:3245:TYR:CD1	1:A:3249:TRP:CZ3	2.94	0.56
2:H:58:LYS:NZ	2:H:81:VAL:HA	2.21	0.56
1:B:4082:GLU:OE1	1:B:4086:ARG:NE	2.35	0.56
1:C:807:ARG:HB2	1:C:807:ARG:NH1	2.21	0.56
1:C:3697:LYS:HA	1:C:3700:HIS:CD2	2.40	0.56
1:D:2980:LEU:HD21	1:D:2989:PRO:HB2	1.87	0.56
1:D:3162:PHE:O	1:D:3245:TYR:HB2	2.06	0.56
1:A:3164:GLY:C	1:A:3244:SER:C	2.64	0.55
1:C:988:LEU:HB2	1:C:1055:ARG:HE	1.70	0.55
1:C:2187:ILE:HG13	1:C:2227:VAL:HG13	1.87	0.55
1:C:2713:ILE:HD13	1:C:2721:ILE:HD11	1.89	0.55
1:D:2187:ILE:HG13	1:D:2227:VAL:HG13	1.87	0.55
1:D:2627:TRP:HB2	1:D:2630:PHE:HB2	1.87	0.55
1:D:3291:ASP:O	1:D:3292:GLU:HG3	2.07	0.55
1:A:1100:ARG:HH12	1:A:1235:GLY:HA3	1.71	0.55
1:A:1559:ARG:HD2	1:A:1565:PRO:HD3	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:15:ARG:HD3	1:B:110:HIS:HB3	1.87	0.55
1:B:246:THR:HG21	1:B:267:VAL:HG11	1.89	0.55
1:B:555:LEU:HD11	1:B:578:VAL:HG11	1.89	0.55
1:B:876:PRO:HA	1:B:879:GLU:HG2	1.88	0.55
1:B:895:MET:HE3	1:B:979:ALA:H	1.71	0.55
1:B:3113:GLY:HA2	1:B:3248:ARG:HH22	1.71	0.55
1:B:3162:PHE:O	1:B:3245:TYR:HB2	2.06	0.55
1:B:3163:ALA:C	1:B:3246:MET:H	2.09	0.55
1:B:3322:LEU:HB3	1:B:3323:MET:HE2	1.88	0.55
1:C:3245:TYR:CD1	1:C:3249:TRP:CZ3	2.94	0.55
1:A:3163:ALA:C	1:A:3246:MET:H	2.09	0.55
1:A:4107:GLU:OE1	1:A:4149:TYR:OH	2.20	0.55
1:C:1287:GLN:HG2	1:C:1290:PHE:HB2	1.88	0.55
1:D:3164:GLY:CA	1:D:3242:LEU:O	2.53	0.55
1:D:3298:ARG:HH12	3:L:133:GLY:HA3	1.71	0.55
1:B:548:CYS:HB3	1:B:582:SER:HB2	1.89	0.55
1:B:2713:ILE:HD13	1:B:2721:ILE:HD11	1.89	0.55
1:C:555:LEU:HD11	1:C:578:VAL:HG11	1.89	0.55
1:C:2627:TRP:HB2	1:C:2630:PHE:HB2	1.87	0.55
1:C:3162:PHE:O	1:C:3245:TYR:HB2	2.06	0.55
1:C:3729:ALA:HA	1:C:3732:HIS:CD2	2.42	0.55
1:D:876:PRO:HA	1:D:879:GLU:HG2	1.88	0.55
1:D:989:THR:OG1	1:D:992:GLN:HG2	2.07	0.55
1:D:1100:ARG:NH1	1:D:1234:GLU:O	2.40	0.55
1:D:3163:ALA:C	1:D:3246:MET:H	2.09	0.55
1:D:3164:GLY:C	1:D:3244:SER:C	2.64	0.55
1:A:587:ASN:HD21	1:A:2133:ARG:HD2	1.70	0.55
1:A:3166:PHE:CE2	1:A:3168:VAL:HG22	2.40	0.55
1:A:3729:ALA:HA	1:A:3732:HIS:CD2	2.42	0.55
1:B:2496:LEU:HD23	1:B:2520:LEU:HD13	1.89	0.55
1:A:1564:MET:HE3	1:A:1578:PRO:HA	1.87	0.55
1:A:4832:GLU:O	1:A:4843:ARG:NH1	2.37	0.55
1:C:548:CYS:HB3	1:C:582:SER:HB2	1.89	0.55
1:C:2192:MET:HA	1:C:2192:MET:HE3	1.89	0.55
1:C:3163:ALA:C	1:C:3246:MET:H	2.09	0.55
1:D:2713:ILE:HD13	1:D:2721:ILE:HD11	1.89	0.55
1:A:514:PHE:HD2	1:A:526:TRP:HB2	1.69	0.55
1:A:1494:MET:HG3	1:A:1494:MET:O	2.07	0.55
1:A:2377:GLU:OE1	1:A:2377:GLU:N	2.40	0.55
1:A:2627:TRP:HB2	1:A:2630:PHE:HB2	1.87	0.55
1:A:2979:ARG:HD2	1:A:3039:THR:HG22	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3113:GLY:HA2	1:A:3248:ARG:HH22	1.71	0.55
1:A:3162:PHE:O	1:A:3245:TYR:HB2	2.06	0.55
1:D:829:LYS:HZ1	1:D:1037:LEU:HD13	1.71	0.55
1:D:1471:ASP:OD1	1:D:1475:LYS:N	2.38	0.55
1:A:1229:ILE:O	1:A:1233:GLN:NE2	2.37	0.55
1:A:1287:GLN:HG2	1:A:1290:PHE:HB2	1.88	0.55
1:A:2187:ILE:HG13	1:A:2227:VAL:HG13	1.87	0.55
1:A:3291:ASP:O	1:A:3292:GLU:HG3	2.07	0.55
1:A:4803:ASP:OD2	1:A:4805:LYS:NZ	2.40	0.55
3:I:94:ASP:HB2	3:I:101:ILE:HG12	1.89	0.55
1:B:1494:MET:HG3	1:B:1494:MET:O	2.07	0.55
1:B:1898:LEU:HD23	1:B:1902:VAL:HG12	1.89	0.55
1:B:4010:VAL:HG11	1:B:4118:PHE:HZ	1.72	0.55
1:C:1494:MET:HG3	1:C:1494:MET:O	2.07	0.55
1:D:3729:ALA:HA	1:D:3732:HIS:CD2	2.42	0.55
1:D:4832:GLU:O	1:D:4843:ARG:NH1	2.37	0.55
3:J:94:ASP:HB2	3:J:101:ILE:HG12	1.89	0.55
1:A:1644:LEU:HD23	1:A:1651:LEU:HA	1.89	0.55
1:B:2244:ALA:O	1:B:2248:MET:HB2	2.07	0.55
1:B:4569:GLU:HB3	1:B:4570:PRO:HD3	1.89	0.55
1:D:246:THR:HG21	1:D:267:VAL:HG11	1.89	0.55
1:D:1494:MET:HG3	1:D:1494:MET:O	2.07	0.55
1:D:2496:LEU:HD23	1:D:2520:LEU:HD13	1.89	0.55
1:D:4654:MET:HE3	1:D:4663:ARG:HE	1.72	0.55
1:A:2496:LEU:HD23	1:A:2520:LEU:HD13	1.89	0.55
1:A:2713:ILE:HD13	1:A:2721:ILE:HD11	1.89	0.55
1:A:2931:ARG:O	1:A:2935:GLU:OE1	2.25	0.55
1:A:3288:LEU:HD12	1:A:3325:LYS:HE2	1.89	0.55
1:B:2005:THR:OG1	1:B:2010:GLU:OE1	2.23	0.55
1:B:2931:ARG:O	1:B:2935:GLU:OE1	2.25	0.55
1:C:1564:MET:HE3	1:C:1578:PRO:HA	1.88	0.55
1:C:3163:ALA:N	1:C:3245:TYR:N	2.55	0.55
1:C:3316:LYS:O	1:C:3317:THR:OG1	2.24	0.55
1:D:2589:LEU:O	1:D:2593:VAL:HG13	2.07	0.55
1:D:3122:ILE:HA	1:D:3126:VAL:HG11	1.89	0.55
1:D:3288:LEU:HD12	1:D:3325:LYS:HE2	1.89	0.55
1:D:3322:LEU:HB3	1:D:3323:MET:HE2	1.87	0.55
1:A:548:CYS:HB3	1:A:582:SER:HB2	1.89	0.54
1:A:4056:LYS:HE3	1:B:4660:PHE:O	2.06	0.54
2:E:20:GLY:HA2	2:E:53:LYS:HZ2	1.72	0.54
1:B:989:THR:OG1	1:B:992:GLN:HG2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3160:ALA:HA	1:B:3240:PRO:O	2.07	0.54
1:B:3164:GLY:C	1:B:3244:SER:C	2.64	0.54
1:B:3729:ALA:HA	1:B:3732:HIS:CD2	2.42	0.54
1:C:1100:ARG:NH1	1:C:1234:GLU:O	2.40	0.54
1:C:1644:LEU:HD23	1:C:1651:LEU:HA	1.89	0.54
1:C:1898:LEU:HD23	1:C:1902:VAL:HG12	1.89	0.54
1:C:2589:LEU:O	1:C:2593:VAL:HG13	2.07	0.54
1:C:3164:GLY:C	1:C:3247:SER:H	2.11	0.54
1:D:2979:ARG:HD2	1:D:3039:THR:HG22	1.89	0.54
1:D:3163:ALA:N	1:D:3245:TYR:N	2.55	0.54
1:A:246:THR:HG21	1:A:267:VAL:HG11	1.89	0.54
1:A:930:ASN:O	1:A:934:GLN:OE1	2.25	0.54
2:G:58:LYS:NZ	2:G:81:VAL:HA	2.21	0.54
1:B:2187:ILE:HG13	1:B:2227:VAL:HG13	1.87	0.54
1:B:2377:GLU:N	1:B:2377:GLU:OE1	2.40	0.54
1:B:2832:THR:HG21	1:C:1290:PHE:HE2	1.73	0.54
1:B:3122:ILE:HA	1:B:3126:VAL:HG11	1.89	0.54
1:B:3164:GLY:C	1:B:3247:SER:H	2.11	0.54
1:C:2244:ALA:O	1:C:2248:MET:HB2	2.07	0.54
1:C:3165:ALA:C	1:C:3248:ARG:HB2	2.28	0.54
1:D:1287:GLN:HG2	1:D:1290:PHE:HB2	1.88	0.54
1:D:3113:GLY:HA2	1:D:3248:ARG:HH22	1.71	0.54
1:D:3165:ALA:C	1:D:3248:ARG:HB2	2.28	0.54
1:D:4521:LYS:HB3	1:D:4562:GLU:OE1	2.08	0.54
3:L:87:ARG:HG2	3:L:91:ARG:HH21	1.73	0.54
1:B:1564:MET:HE3	1:B:1578:PRO:HA	1.88	0.54
1:B:1719:LEU:HA	1:B:1722:ASN:ND2	2.23	0.54
1:B:1910:LEU:HD13	1:B:2062:ILE:HG12	1.89	0.54
1:B:3165:ALA:C	1:B:3248:ARG:HB2	2.28	0.54
1:B:4521:LYS:HB3	1:B:4562:GLU:OE1	2.08	0.54
1:C:930:ASN:O	1:C:934:GLN:OE1	2.25	0.54
1:C:989:THR:OG1	1:C:992:GLN:HG2	2.07	0.54
1:C:4010:VAL:HG11	1:C:4118:PHE:HZ	1.72	0.54
1:C:4569:GLU:HB3	1:C:4570:PRO:HD3	1.89	0.54
1:D:548:CYS:HB3	1:D:582:SER:HB2	1.89	0.54
1:D:2931:ARG:O	1:D:2935:GLU:OE1	2.25	0.54
1:D:4010:VAL:HG11	1:D:4118:PHE:HZ	1.72	0.54
3:J:87:ARG:HG2	3:J:91:ARG:HH21	1.73	0.54
1:A:3122:ILE:HA	1:A:3126:VAL:HG11	1.89	0.54
1:A:3164:GLY:C	1:A:3247:SER:H	2.11	0.54
1:A:4248:LEU:HD22	1:B:4711:GLY:HA2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:87:ARG:HG2	3:I:91:ARG:HH21	1.73	0.54
1:B:963:LYS:NZ	1:B:979:ALA:O	2.27	0.54
1:B:1100:ARG:NH1	1:B:1234:GLU:O	2.40	0.54
1:C:894:VAL:O	1:C:898:ILE:HG12	2.08	0.54
1:C:2496:LEU:HD23	1:C:2520:LEU:HD13	1.89	0.54
1:C:3122:ILE:HA	1:C:3126:VAL:HG11	1.89	0.54
1:D:2377:GLU:OE1	1:D:2377:GLU:N	2.40	0.54
3:K:87:ARG:HG2	3:K:91:ARG:HH21	1.73	0.54
3:K:94:ASP:HB2	3:K:101:ILE:HG12	1.89	0.54
1:A:963:LYS:NZ	1:A:979:ALA:O	2.27	0.54
1:A:2743:TYR:HE1	1:A:2758:LYS:HB3	1.73	0.54
1:B:2979:ARG:HD2	1:B:3039:THR:HG22	1.89	0.54
1:B:3285:TYR:CZ	1:B:3321:PRO:HB2	2.43	0.54
1:B:4803:ASP:OD2	1:B:4805:LYS:NZ	2.40	0.54
1:C:4832:GLU:O	1:C:4843:ARG:NH1	2.37	0.54
1:D:3164:GLY:C	1:D:3247:SER:H	2.11	0.54
1:A:3163:ALA:N	1:A:3245:TYR:N	2.55	0.54
1:A:3192:ARG:HD2	1:A:3197:LEU:CD1	2.37	0.54
1:A:3250:TRP:CD1	1:A:3273:MET:HE3	2.41	0.54
1:A:4010:VAL:HG11	1:A:4118:PHE:HZ	1.72	0.54
1:A:4102:LEU:HD21	1:A:4118:PHE:CE2	2.43	0.54
1:C:3160:ALA:HA	1:C:3240:PRO:O	2.08	0.54
1:C:3285:TYR:CZ	1:C:3321:PRO:HB2	2.43	0.54
1:C:4102:LEU:HD21	1:C:4118:PHE:CE2	2.43	0.54
1:D:1564:MET:HE3	1:D:1578:PRO:HA	1.89	0.54
1:D:1719:LEU:HA	1:D:1722:ASN:ND2	2.23	0.54
3:L:94:ASP:HB2	3:L:101:ILE:HG12	1.89	0.54
1:A:989:THR:OG1	1:A:992:GLN:HG2	2.07	0.54
1:A:1100:ARG:NH1	1:A:1234:GLU:O	2.40	0.54
1:A:4569:GLU:HB3	1:A:4570:PRO:HD3	1.90	0.54
1:B:2743:TYR:HE1	1:B:2758:LYS:HB3	1.73	0.54
1:B:3163:ALA:N	1:B:3245:TYR:N	2.55	0.54
1:D:3192:ARG:HD2	1:D:3197:LEU:CD1	2.37	0.54
1:D:4803:ASP:OD2	1:D:4805:LYS:NZ	2.40	0.54
1:A:1719:LEU:HA	1:A:1722:ASN:ND2	2.23	0.54
1:A:2589:LEU:O	1:A:2593:VAL:HG13	2.07	0.54
1:A:3165:ALA:C	1:A:3248:ARG:HB2	2.28	0.54
1:B:1432:ILE:HG12	1:B:1441:VAL:HG11	1.90	0.54
1:B:3162:PHE:O	1:B:3245:TYR:CA	2.56	0.54
1:C:2377:GLU:OE1	1:C:2377:GLU:N	2.40	0.54
1:D:1644:LEU:HD23	1:D:1651:LEU:HA	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:127:ARG:NH2	3:I:135:GLY:HA2	2.23	0.54
1:B:894:VAL:O	1:B:898:ILE:HG12	2.07	0.54
1:B:3192:ARG:HD2	1:B:3197:LEU:CD1	2.37	0.54
1:C:246:THR:HG21	1:C:267:VAL:HG11	1.89	0.54
1:C:1719:LEU:HA	1:C:1722:ASN:ND2	2.23	0.54
1:C:1910:LEU:HD13	1:C:2062:ILE:HG12	1.89	0.54
1:C:2580:LEU:O	1:C:2616:ARG:NH2	2.37	0.54
1:C:3269:ASN:O	1:C:3273:MET:HE1	2.08	0.54
1:C:3827:GLU:OE1	1:C:3827:GLU:N	2.37	0.54
1:A:3962:SER:HB3	1:A:4071:GLU:HG2	1.90	0.54
1:A:4521:LYS:HB3	1:A:4562:GLU:OE1	2.08	0.54
1:B:964:MET:SD	1:B:964:MET:N	2.81	0.54
1:B:2589:LEU:O	1:B:2593:VAL:HG13	2.07	0.54
1:B:4102:LEU:HD21	1:B:4118:PHE:CE2	2.43	0.54
1:C:1432:ILE:HG12	1:C:1441:VAL:HG11	1.90	0.54
1:C:2931:ARG:O	1:C:2935:GLU:OE1	2.25	0.54
1:C:3291:ASP:O	1:C:3292:GLU:HG3	2.07	0.54
1:D:2244:ALA:O	1:D:2248:MET:HB2	2.07	0.54
1:A:1667:LEU:HD13	1:A:2131:SER:HB3	1.91	0.53
1:A:3269:ASN:O	1:A:3272:HIS:N	2.42	0.53
1:B:4832:GLU:O	1:B:4843:ARG:NH1	2.37	0.53
1:D:555:LEU:HD11	1:D:578:VAL:HG11	1.89	0.53
1:D:1432:ILE:HG12	1:D:1441:VAL:HG11	1.90	0.53
1:D:1910:LEU:HD13	1:D:2062:ILE:HG12	1.89	0.53
1:D:4102:LEU:HD21	1:D:4118:PHE:CE2	2.43	0.53
1:A:1910:LEU:HD13	1:A:2062:ILE:HG12	1.89	0.53
3:I:88:GLU:OE1	3:I:91:ARG:NH1	2.41	0.53
1:B:1644:LEU:HD23	1:B:1651:LEU:HA	1.89	0.53
1:B:2214:MET:HA	1:B:2214:MET:HE2	1.90	0.53
1:B:2245:ALA:HA	1:B:2248:MET:HE3	1.90	0.53
1:B:3827:GLU:OE1	1:B:3827:GLU:N	2.37	0.53
1:B:3962:SER:HB3	1:B:4071:GLU:HG2	1.90	0.53
1:C:3071:THR:HA	1:C:3074:ASN:HD21	1.74	0.53
1:C:4271:VAL:HG22	1:C:4274:MET:HE2	1.90	0.53
1:D:3164:GLY:C	1:D:3243:CYS:O	2.47	0.53
1:D:4569:GLU:HB3	1:D:4570:PRO:HD3	1.89	0.53
1:A:1432:ILE:HG12	1:A:1441:VAL:HG11	1.90	0.53
1:A:3160:ALA:HA	1:A:3240:PRO:O	2.07	0.53
1:A:4276:VAL:HA	1:A:4279:MET:HG2	1.91	0.53
1:B:1667:LEU:HD13	1:B:2131:SER:HB3	1.91	0.53
1:B:3184:TYR:HE1	1:B:3192:ARG:NH2	2.06	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3164:GLY:C	1:C:3243:CYS:O	2.47	0.53
1:C:4521:LYS:HB3	1:C:4562:GLU:OE1	2.08	0.53
1:C:4803:ASP:OD2	1:C:4805:LYS:NZ	2.40	0.53
3:J:130:ASP:HB3	3:J:133:GLY:HA2	1.91	0.53
1:A:614:LEU:HD23	1:A:617:LEU:HD12	1.90	0.53
1:A:874:LEU:HD11	1:A:878:LEU:HD23	1.90	0.53
1:A:874:LEU:CD1	1:A:940:LEU:HD13	2.36	0.53
1:A:2244:ALA:O	1:A:2248:MET:HB2	2.07	0.53
2:G:20:GLY:HA2	2:G:53:LYS:HZ2	1.72	0.53
1:B:3166:PHE:CE2	1:B:3168:VAL:HG22	2.40	0.53
1:B:3288:LEU:HD12	1:B:3325:LYS:HE2	1.89	0.53
1:B:3291:ASP:O	1:B:3292:GLU:HG3	2.07	0.53
1:B:3296:MET:HA	1:B:3299:LEU:HD12	1.91	0.53
1:C:2245:ALA:HA	1:C:2248:MET:HE3	1.91	0.53
1:C:3192:ARG:HD2	1:C:3197:LEU:CD1	2.38	0.53
1:C:3288:LEU:HD12	1:C:3325:LYS:HE2	1.89	0.53
1:D:3827:GLU:OE1	1:D:3827:GLU:N	2.37	0.53
3:L:88:GLU:OE1	3:L:91:ARG:NH1	2.41	0.53
3:K:127:ARG:NH2	3:K:135:GLY:HA2	2.23	0.53
1:A:555:LEU:HD11	1:A:578:VAL:HG11	1.89	0.53
1:A:3164:GLY:C	1:A:3243:CYS:O	2.47	0.53
1:B:614:LEU:HD23	1:B:617:LEU:HD12	1.90	0.53
1:B:3071:THR:HA	1:B:3074:ASN:HD21	1.74	0.53
1:B:3269:ASN:O	1:B:3272:HIS:N	2.42	0.53
1:C:2979:ARG:HD2	1:C:3039:THR:HG22	1.89	0.53
1:C:3184:TYR:HE1	1:C:3192:ARG:NH2	2.06	0.53
1:D:3298:ARG:NH2	3:L:133:GLY:C	2.61	0.53
3:J:48:GLU:O	3:J:52:MET:HG3	2.09	0.53
3:K:88:GLU:OE1	3:K:91:ARG:NH1	2.41	0.53
1:A:894:VAL:O	1:A:898:ILE:HG12	2.08	0.53
1:A:3276:LEU:O	1:A:3280:ILE:HG23	2.09	0.53
1:A:3316:LYS:O	1:A:3317:THR:OG1	2.24	0.53
2:H:20:GLY:HA2	2:H:53:LYS:HZ2	1.74	0.53
3:I:48:GLU:O	3:I:52:MET:HG3	2.09	0.53
1:B:874:LEU:CD1	1:B:940:LEU:HD13	2.36	0.53
1:C:874:LEU:HD11	1:C:878:LEU:HD23	1.90	0.53
1:C:1667:LEU:HD13	1:C:2131:SER:HB3	1.91	0.53
1:C:3162:PHE:O	1:C:3245:TYR:CA	2.56	0.53
1:D:1898:LEU:HD23	1:D:1902:VAL:HG12	1.89	0.53
1:D:3071:THR:HA	1:D:3074:ASN:HD21	1.74	0.53
1:A:2754:GLN:HG2	1:A:2756:LEU:H	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3161:ALA:CA	1:A:3244:SER:HB3	2.38	0.53
1:A:4093:ASP:OD1	1:A:4094:ILE:N	2.42	0.53
2:G:83:TYR:OH	1:C:1768:PHE:O	2.22	0.53
1:B:1495:SER:OG	1:B:1496:PRO:HD3	2.09	0.53
1:D:2743:TYR:HE1	1:D:2758:LYS:HB3	1.73	0.53
1:D:3161:ALA:CA	1:D:3244:SER:HB3	2.38	0.53
1:D:3162:PHE:O	1:D:3245:TYR:CA	2.56	0.53
3:L:127:ARG:NH2	3:L:135:GLY:HA2	2.23	0.53
1:A:1170:GLU:OE1	1:A:1170:GLU:N	2.42	0.53
1:A:3296:MET:HA	1:A:3299:LEU:HD12	1.91	0.53
1:B:930:ASN:O	1:B:934:GLN:OE1	2.25	0.53
1:B:943:LEU:HA	1:B:946:LEU:HD12	1.91	0.53
1:C:1549:SER:OG	1:C:1551:ASN:O	2.26	0.53
1:D:894:VAL:O	1:D:898:ILE:HG12	2.08	0.53
1:D:930:ASN:O	1:D:934:GLN:OE1	2.25	0.53
1:D:1667:LEU:HD13	1:D:2131:SER:HB3	1.91	0.53
1:D:3008:PHE:HE1	1:D:3104:MET:HE1	1.73	0.53
1:D:3269:ASN:O	1:D:3272:HIS:N	2.42	0.53
1:D:3285:TYR:CZ	1:D:3321:PRO:HB2	2.43	0.53
1:D:3910:ILE:HG21	1:D:3970:GLU:HB3	1.91	0.53
1:D:4042:VAL:HG12	1:D:4077:THR:HB	1.91	0.53
1:A:943:LEU:HD22	1:A:1057:LEU:HD21	1.91	0.53
1:A:4042:VAL:HG12	1:A:4077:THR:HB	1.91	0.53
1:A:4252:ILE:HG21	1:B:4707:MET:HA	1.90	0.53
1:B:3163:ALA:O	1:B:3246:MET:HG2	2.09	0.53
1:C:842:GLN:HB2	1:C:1603:PHE:HB2	1.91	0.53
1:C:4042:VAL:HG12	1:C:4077:THR:HB	1.91	0.53
1:D:3163:ALA:O	1:D:3246:MET:HG2	2.09	0.53
3:J:88:GLU:OE1	3:J:91:ARG:NH1	2.41	0.53
3:K:48:GLU:O	3:K:52:MET:HG3	2.09	0.53
1:A:895:MET:HE3	1:A:979:ALA:H	1.73	0.53
1:A:930:ASN:O	1:A:933:LEU:HG	2.09	0.53
3:I:130:ASP:HB3	3:I:133:GLY:HA2	1.91	0.53
1:B:3276:LEU:O	1:B:3280:ILE:HG23	2.09	0.53
1:B:3587:TRP:HB3	3:J:146:MET:SD	2.49	0.53
1:B:4042:VAL:HG12	1:B:4077:THR:HB	1.91	0.53
1:C:2743:TYR:HE1	1:C:2758:LYS:HB3	1.73	0.53
1:D:2754:GLN:HG2	1:D:2756:LEU:H	1.74	0.53
1:D:2849:HIS:NE2	1:D:2877:LEU:HD11	2.24	0.53
1:D:4276:VAL:HA	1:D:4279:MET:HG2	1.91	0.53
3:K:130:ASP:HB3	3:K:133:GLY:HA2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1495:SER:OG	1:A:1496:PRO:HD3	2.09	0.52
1:B:842:GLN:HB2	1:B:1603:PHE:HB2	1.91	0.52
1:B:1170:GLU:OE1	1:B:1170:GLU:N	2.42	0.52
1:B:3164:GLY:C	1:B:3243:CYS:O	2.47	0.52
1:B:3164:GLY:C	1:B:3247:SER:N	2.63	0.52
1:C:874:LEU:CD1	1:C:940:LEU:HD13	2.36	0.52
1:C:930:ASN:O	1:C:933:LEU:HG	2.09	0.52
1:D:614:LEU:HD23	1:D:617:LEU:HD12	1.90	0.52
1:D:3160:ALA:HA	1:D:3240:PRO:O	2.07	0.52
1:D:3160:ALA:HA	1:D:3241:MET:CA	2.39	0.52
1:D:3316:LYS:O	1:D:3317:THR:OG1	2.24	0.52
3:J:127:ARG:NH2	3:J:135:GLY:HA2	2.23	0.52
1:A:3045:VAL:HG11	1:A:3121:LEU:HD12	1.91	0.52
1:A:3910:ILE:HG21	1:A:3970:GLU:HB3	1.91	0.52
1:B:874:LEU:HD11	1:B:878:LEU:HD23	1.90	0.52
1:C:4093:ASP:OD1	1:C:4094:ILE:N	2.42	0.52
1:C:4862:ILE:HD13	1:D:4852:PHE:CE1	2.43	0.52
1:D:625:VAL:HG12	1:D:628:ASN:H	1.75	0.52
1:D:963:LYS:NZ	1:D:979:ALA:O	2.27	0.52
1:D:1564:MET:HE3	1:D:1565:PRO:HD2	1.90	0.52
1:A:3600:VAL:HG21	3:I:37:MET:HG2	1.91	0.52
1:B:930:ASN:O	1:B:933:LEU:HG	2.09	0.52
1:B:3316:LYS:HA	1:B:3319:PHE:CE1	2.45	0.52
1:B:4056:LYS:HE3	1:C:4660:PHE:O	2.09	0.52
1:B:4268:MET:HE2	1:C:4694:LEU:HD13	1.90	0.52
1:B:4276:VAL:HA	1:B:4279:MET:HG2	1.91	0.52
1:C:515:ALA:HB2	1:C:523:GLY:HA3	1.91	0.52
1:C:2754:GLN:HG2	1:C:2756:LEU:H	1.74	0.52
1:C:3045:VAL:HG11	1:C:3121:LEU:HD12	1.91	0.52
1:C:3163:ALA:O	1:C:3246:MET:HG2	2.09	0.52
1:C:3962:SER:HB3	1:C:4071:GLU:HG2	1.90	0.52
1:D:874:LEU:HD11	1:D:878:LEU:HD23	1.90	0.52
1:D:3184:TYR:HE1	1:D:3192:ARG:NH2	2.06	0.52
3:K:123:ASP:HA	3:K:126:ILE:HG22	1.91	0.52
1:A:3285:TYR:CZ	1:A:3321:PRO:HB2	2.43	0.52
1:A:4268:MET:CE	1:B:4481:TRP:HZ2	2.21	0.52
1:B:3045:VAL:HG11	1:B:3121:LEU:HD12	1.91	0.52
1:C:3296:MET:HA	1:C:3299:LEU:HD12	1.91	0.52
1:C:4084:VAL:O	1:C:4088:HIS:CB	2.57	0.52
1:D:1170:GLU:OE1	1:D:1170:GLU:N	2.42	0.52
1:D:3276:LEU:O	1:D:3280:ILE:HG23	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4271:VAL:HG22	1:D:4274:MET:HE2	1.91	0.52
3:L:130:ASP:HB3	3:L:133:GLY:HA2	1.91	0.52
1:A:585:ALA:O	1:A:589:ILE:HG12	2.10	0.52
1:A:842:GLN:HB2	1:A:1603:PHE:HB2	1.91	0.52
1:A:2791:ARG:HD3	1:A:2795:GLY:HA3	1.91	0.52
1:A:2849:HIS:NE2	1:A:2877:LEU:HD11	2.24	0.52
1:A:3071:THR:HA	1:A:3074:ASN:HD21	1.74	0.52
1:A:3951:PHE:CD2	1:A:3975:GLN:HG2	2.45	0.52
1:A:4271:VAL:HG22	1:A:4274:MET:HE2	1.91	0.52
1:B:874:LEU:HD11	1:B:878:LEU:HB3	1.92	0.52
1:B:2754:GLN:HG2	1:B:2756:LEU:H	1.74	0.52
1:C:585:ALA:O	1:C:589:ILE:HG12	2.10	0.52
1:C:1495:SER:OG	1:C:1496:PRO:HD3	2.09	0.52
1:C:3243:CYS:HB2	1:C:3302:PHE:HE2	1.75	0.52
1:C:3269:ASN:O	1:C:3272:HIS:N	2.42	0.52
1:C:3276:LEU:O	1:C:3280:ILE:HG23	2.09	0.52
1:D:3164:GLY:C	1:D:3247:SER:N	2.63	0.52
3:J:123:ASP:HA	3:J:126:ILE:HG22	1.91	0.52
1:A:625:VAL:HG12	1:A:628:ASN:H	1.75	0.52
1:A:1549:SER:OG	1:A:1551:ASN:O	2.26	0.52
1:A:2979:ARG:HH12	1:A:2983:LEU:HD12	1.74	0.52
1:A:3162:PHE:O	1:A:3245:TYR:CA	2.56	0.52
1:A:3163:ALA:HB3	1:A:3241:MET:C	2.30	0.52
1:A:3184:TYR:HE1	1:A:3192:ARG:NH2	2.06	0.52
1:A:3316:LYS:HA	1:A:3319:PHE:CE1	2.45	0.52
1:B:829:LYS:HZ1	1:B:1037:LEU:HD13	1.75	0.52
1:B:3161:ALA:CA	1:B:3244:SER:HB3	2.38	0.52
1:C:3164:GLY:C	1:C:3247:SER:N	2.63	0.52
1:D:874:LEU:CD1	1:D:940:LEU:HD13	2.36	0.52
1:D:943:LEU:HA	1:D:946:LEU:HD12	1.91	0.52
1:D:3243:CYS:HB2	1:D:3302:PHE:HE2	1.75	0.52
1:D:3803:LEU:HD13	1:D:3888:PHE:CD2	2.45	0.52
1:D:3951:PHE:CD2	1:D:3975:GLN:HG2	2.45	0.52
1:A:2789:ILE:HD11	1:A:2901:TYR:HB3	1.92	0.52
1:A:3163:ALA:O	1:A:3246:MET:HG2	2.09	0.52
1:A:3164:GLY:O	1:A:3247:SER:N	2.43	0.52
1:B:515:ALA:HB2	1:B:523:GLY:HA3	1.91	0.52
1:C:1170:GLU:N	1:C:1170:GLU:OE1	2.42	0.52
1:C:3081:THR:OG1	1:C:3147:TYR:OH	2.27	0.52
1:C:3163:ALA:HB3	1:C:3241:MET:C	2.30	0.52
1:C:3951:PHE:CD2	1:C:3975:GLN:HG2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:930:ASN:O	1:D:933:LEU:HG	2.09	0.52
1:D:1564:MET:CE	1:D:1565:PRO:HD2	2.40	0.52
1:D:3962:SER:HB3	1:D:4071:GLU:HG2	1.90	0.52
1:D:4084:VAL:O	1:D:4088:HIS:CB	2.57	0.52
3:L:48:GLU:O	3:L:52:MET:HG3	2.09	0.52
3:I:123:ASP:HA	3:I:126:ILE:HG22	1.91	0.52
1:B:3160:ALA:HA	1:B:3241:MET:CA	2.39	0.52
1:C:943:LEU:HA	1:C:946:LEU:HD12	1.91	0.52
1:C:2849:HIS:NE2	1:C:2877:LEU:HD11	2.25	0.52
1:C:2979:ARG:HH12	1:C:2983:LEU:HD12	1.74	0.52
1:C:3161:ALA:CA	1:C:3244:SER:HB3	2.38	0.52
1:C:3164:GLY:O	1:C:3247:SER:N	2.43	0.52
1:C:3910:ILE:HG21	1:C:3970:GLU:HB3	1.91	0.52
1:D:842:GLN:HB2	1:D:1603:PHE:HB2	1.91	0.52
1:D:1495:SER:OG	1:D:1496:PRO:HD3	2.09	0.52
1:D:3016:ARG:HG2	1:D:3017:HIS:CD2	2.45	0.52
1:A:874:LEU:HD11	1:A:878:LEU:HB3	1.92	0.52
1:A:1898:LEU:HD23	1:A:1902:VAL:HG12	1.89	0.52
1:A:3160:ALA:O	1:A:3244:SER:HB3	2.10	0.52
1:B:625:VAL:HG12	1:B:628:ASN:H	1.75	0.52
1:B:943:LEU:HD22	1:B:1057:LEU:HD21	1.91	0.52
1:B:1035:TYR:O	1:B:1043:LYS:NZ	2.25	0.52
1:B:1564:MET:CE	1:B:1565:PRO:HD2	2.40	0.52
1:C:3216:GLU:HA	1:C:3219:VAL:HG22	1.92	0.52
1:C:3316:LYS:HA	1:C:3319:PHE:CE1	2.44	0.52
1:C:3803:LEU:HD13	1:C:3888:PHE:CD2	2.45	0.52
1:D:2791:ARG:HD3	1:D:2795:GLY:HA3	1.91	0.52
1:D:4093:ASP:OD1	1:D:4094:ILE:N	2.42	0.52
1:D:4661:TYR:HB3	1:D:4665:ARG:HH21	1.75	0.52
1:A:515:ALA:HB2	1:A:523:GLY:HA3	1.91	0.52
1:A:3803:LEU:HD13	1:A:3888:PHE:CD2	2.45	0.52
1:B:1041:ARG:HA	1:B:1044:LYS:HZ2	1.75	0.52
1:B:2789:ILE:HD11	1:B:2901:TYR:HB3	1.92	0.52
1:B:2849:HIS:NE2	1:B:2877:LEU:HD11	2.24	0.52
1:B:4011:GLU:HG3	1:B:4015:LYS:HZ2	1.75	0.52
1:B:4084:VAL:O	1:B:4088:HIS:CB	2.57	0.52
1:C:829:LYS:HZ1	1:C:1037:LEU:HD13	1.75	0.52
1:C:874:LEU:HD11	1:C:878:LEU:HB3	1.92	0.52
1:C:3016:ARG:HG2	1:C:3017:HIS:CD2	2.45	0.52
1:C:3088:LYS:HG2	1:C:3091:THR:HG23	1.92	0.52
1:C:3160:ALA:HA	1:C:3241:MET:CA	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3160:ALA:O	1:D:3244:SER:HB3	2.10	0.52
1:D:3164:GLY:O	1:D:3247:SER:N	2.43	0.52
1:A:3009:CYS:SG	1:A:3057:LEU:HA	2.50	0.51
1:A:4084:VAL:O	1:A:4088:HIS:CB	2.57	0.51
1:B:585:ALA:O	1:B:589:ILE:HG12	2.10	0.51
1:B:2968:LEU:HD13	1:B:3029:ILE:HG12	1.92	0.51
1:B:3009:CYS:SG	1:B:3057:LEU:HA	2.50	0.51
1:B:3163:ALA:HB3	1:B:3241:MET:C	2.30	0.51
1:C:2791:ARG:HD3	1:C:2795:GLY:HA3	1.91	0.51
1:C:2830:ASN:HD21	1:D:1551:ASN:HB2	1.75	0.51
1:C:3160:ALA:O	1:C:3244:SER:HB3	2.10	0.51
1:C:4276:VAL:HA	1:C:4279:MET:HG2	1.91	0.51
1:D:585:ALA:O	1:D:589:ILE:HG12	2.10	0.51
1:D:2979:ARG:HH12	1:D:2983:LEU:HD12	1.74	0.51
1:D:3216:GLU:HA	1:D:3219:VAL:HG22	1.92	0.51
1:D:3296:MET:HA	1:D:3299:LEU:HD12	1.91	0.51
1:D:3600:VAL:HG21	3:L:37:MET:HG2	1.92	0.51
1:A:3216:GLU:HA	1:A:3219:VAL:HG22	1.92	0.51
1:A:4250:TYR:O	1:A:4254:THR:HG23	2.10	0.51
1:B:181:LEU:N	1:B:212:TRP:O	2.35	0.51
1:B:3164:GLY:O	1:B:3247:SER:N	2.43	0.51
1:B:3243:CYS:HB2	1:B:3302:PHE:HE2	1.75	0.51
1:C:4250:TYR:O	1:C:4254:THR:HG23	2.10	0.51
1:D:3009:CYS:SG	1:D:3057:LEU:HA	2.50	0.51
1:D:3166:PHE:C	1:D:3248:ARG:HE	2.14	0.51
1:D:4250:TYR:O	1:D:4254:THR:HG23	2.10	0.51
1:A:943:LEU:HA	1:A:946:LEU:HD12	1.91	0.51
1:A:3160:ALA:HA	1:A:3241:MET:CA	2.39	0.51
3:I:22:LYS:HD3	3:I:22:LYS:H	1.76	0.51
1:B:3216:GLU:HA	1:B:3219:VAL:HG22	1.92	0.51
1:B:3803:LEU:HD13	1:B:3888:PHE:CD2	2.45	0.51
1:B:4093:ASP:OD1	1:B:4094:ILE:N	2.42	0.51
1:C:2720:PHE:HE1	1:C:2895:PHE:HD2	1.58	0.51
1:C:3009:CYS:SG	1:C:3057:LEU:HA	2.50	0.51
1:C:3166:PHE:C	1:C:3248:ARG:HE	2.14	0.51
1:D:2789:ILE:HD11	1:D:2901:TYR:HB3	1.92	0.51
1:D:3163:ALA:HB3	1:D:3241:MET:C	2.30	0.51
1:D:3316:LYS:HA	1:D:3319:PHE:CE1	2.45	0.51
1:A:2888:LYS:HA	1:A:2891:ASP:OD2	2.11	0.51
1:A:3248:ARG:HB3	1:A:3249:TRP:CZ3	2.46	0.51
1:B:1144:ARG:NH1	1:B:1191:ALA:O	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1957:LEU:HD21	3:J:42:GLN:NE2	2.25	0.51
1:B:3166:PHE:C	1:B:3248:ARG:HE	2.14	0.51
1:C:614:LEU:HD23	1:C:617:LEU:HD12	1.90	0.51
1:C:3248:ARG:HB3	1:C:3249:TRP:CZ3	2.46	0.51
1:D:3248:ARG:HB3	1:D:3249:TRP:CZ3	2.46	0.51
3:L:22:LYS:HD3	3:L:22:LYS:H	1.76	0.51
3:L:103:ALA:HA	3:L:106:LEU:HD12	1.93	0.51
1:A:1434:PRO:O	1:D:2830:ASN:ND2	2.42	0.51
1:A:3164:GLY:C	1:A:3247:SER:N	2.63	0.51
1:A:3243:CYS:HB2	1:A:3302:PHE:HE2	1.75	0.51
1:B:1785:ASP:OD1	1:B:1786:ILE:N	2.43	0.51
1:B:3016:ARG:HG2	1:B:3017:HIS:CD2	2.45	0.51
1:B:3160:ALA:O	1:B:3244:SER:HB3	2.10	0.51
1:B:3910:ILE:HG21	1:B:3970:GLU:HB3	1.91	0.51
1:B:4250:TYR:O	1:B:4254:THR:HG23	2.11	0.51
1:C:625:VAL:HG12	1:C:628:ASN:H	1.75	0.51
1:C:1144:ARG:NH1	1:C:1191:ALA:O	2.44	0.51
1:C:1457:PHE:HA	1:C:1461:ARG:HH12	1.76	0.51
1:C:2968:LEU:HD13	1:C:3029:ILE:HG12	1.92	0.51
1:C:4661:TYR:HB3	1:C:4665:ARG:HH21	1.75	0.51
1:D:515:ALA:HB2	1:D:523:GLY:HA3	1.91	0.51
1:D:2245:ALA:HA	1:D:2248:MET:HE3	1.92	0.51
1:D:3247:SER:HA	1:D:3250:TRP:H	1.75	0.51
1:D:3298:ARG:NH2	3:L:134:ASP:HA	2.26	0.51
1:A:3016:ARG:HG2	1:A:3017:HIS:CD2	2.45	0.51
1:A:3063:ASN:ND2	1:A:3066:GLU:OE2	2.41	0.51
1:A:3247:SER:HA	1:A:3250:TRP:H	1.75	0.51
2:F:29:GLY:N	2:F:38:ASP:O	2.37	0.51
1:B:2791:ARG:HD3	1:B:2795:GLY:HA3	1.91	0.51
1:B:3248:ARG:HB3	1:B:3249:TRP:CZ3	2.46	0.51
1:B:3316:LYS:O	1:B:3317:THR:OG1	2.24	0.51
1:B:3951:PHE:CD2	1:B:3975:GLN:HG2	2.45	0.51
1:C:943:LEU:HD22	1:C:1057:LEU:HD21	1.91	0.51
1:C:2202:TYR:O	1:C:2206:ILE:HG12	2.11	0.51
1:C:3102:LEU:HD13	1:C:3137:LEU:HD21	1.92	0.51
1:C:3166:PHE:CE2	1:C:3168:VAL:HG22	2.41	0.51
1:D:3166:PHE:CG	1:D:3167:PRO:HD2	2.45	0.51
1:A:1457:PHE:HA	1:A:1461:ARG:HH12	1.76	0.51
1:A:2202:TYR:O	1:A:2206:ILE:HG12	2.11	0.51
1:A:4834:PRO:HB3	1:A:4843:ARG:HG2	1.92	0.51
1:B:1457:PHE:HA	1:B:1461:ARG:HH12	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2720:PHE:HE1	1:B:2895:PHE:HD2	1.58	0.51
1:B:2940:ILE:HA	1:B:2943:PHE:HD2	1.76	0.51
1:B:3088:LYS:HG2	1:B:3091:THR:HG23	1.92	0.51
1:B:3102:LEU:HD13	1:B:3137:LEU:HD21	1.92	0.51
1:C:644:LEU:HD13	1:C:1630:LEU:HD21	1.93	0.51
1:C:1564:MET:CE	1:C:1565:PRO:HD2	2.40	0.51
1:C:2629:ASN:OD1	1:C:2630:PHE:N	2.44	0.51
1:C:2940:ILE:HA	1:C:2943:PHE:HD2	1.76	0.51
1:C:3245:TYR:O	1:C:3248:ARG:N	2.44	0.51
1:D:3088:LYS:HG2	1:D:3091:THR:HG23	1.92	0.51
1:A:1564:MET:CE	1:A:1565:PRO:HD2	2.40	0.51
1:A:3102:LEU:HD13	1:A:3137:LEU:HD21	1.92	0.51
1:A:3166:PHE:C	1:A:3248:ARG:HE	2.14	0.51
1:B:4113:THR:O	1:B:4117:THR:HG23	2.11	0.51
1:C:1500:ARG:HG3	1:C:1505:LEU:HB2	1.93	0.51
1:D:2888:LYS:HA	1:D:2891:ASP:OD2	2.11	0.51
1:D:3102:LEU:HD13	1:D:3137:LEU:HD21	1.92	0.51
3:K:103:ALA:HA	3:K:106:LEU:HD12	1.93	0.51
1:A:2940:ILE:HA	1:A:2943:PHE:HD2	1.76	0.51
1:A:4113:THR:O	1:A:4117:THR:HG23	2.11	0.51
1:A:4661:TYR:HB3	1:A:4665:ARG:HH21	1.75	0.51
1:B:2888:LYS:HA	1:B:2891:ASP:OD2	2.11	0.51
1:B:3057:LEU:O	1:B:3060:PHE:HB3	2.11	0.51
1:B:3166:PHE:CG	1:B:3167:PRO:HD2	2.45	0.51
1:C:877:HIS:O	1:C:880:ARG:HD3	2.11	0.51
1:C:2789:ILE:HD11	1:C:2901:TYR:HB3	1.92	0.51
1:C:3057:LEU:O	1:C:3060:PHE:HB3	2.11	0.51
1:C:3166:PHE:CG	1:C:3167:PRO:HD2	2.45	0.51
1:C:4113:THR:O	1:C:4117:THR:HG23	2.11	0.51
1:D:877:HIS:O	1:D:880:ARG:HD3	2.11	0.51
1:D:2202:TYR:O	1:D:2206:ILE:HG12	2.11	0.51
1:D:2580:LEU:O	1:D:2616:ARG:NH2	2.37	0.51
1:D:2629:ASN:OD1	1:D:2630:PHE:N	2.44	0.51
1:D:3045:VAL:HG11	1:D:3121:LEU:HD12	1.91	0.51
1:D:3124:GLU:C	1:D:3126:VAL:H	2.13	0.51
1:B:1500:ARG:HG3	1:B:1505:LEU:HB2	1.93	0.51
1:B:2979:ARG:HH12	1:B:2983:LEU:HD12	1.74	0.51
1:B:3157:GLU:O	1:B:3160:ALA:HB3	2.11	0.51
1:B:3245:TYR:O	1:B:3248:ARG:N	2.44	0.51
1:D:849:ASP:OD1	1:D:1214:ARG:NE	2.44	0.51
1:D:874:LEU:HD11	1:D:878:LEU:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1118:SER:HB3	1:D:1204:VAL:HG11	1.92	0.51
1:D:1144:ARG:NH1	1:D:1191:ALA:O	2.44	0.51
1:D:2940:ILE:HA	1:D:2943:PHE:HD2	1.76	0.51
3:J:22:LYS:H	3:J:22:LYS:HD3	1.76	0.51
3:L:123:ASP:HA	3:L:126:ILE:HG22	1.91	0.51
1:A:2734:MET:HE2	1:A:2823:PRO:HB2	1.92	0.50
1:A:3057:LEU:O	1:A:3060:PHE:HB3	2.11	0.50
1:A:3313:GLN:HA	1:A:3316:LYS:HE3	1.93	0.50
1:C:3057:LEU:HD12	1:C:3058:ARG:HG3	1.93	0.50
1:C:3157:GLU:O	1:C:3160:ALA:HB3	2.11	0.50
1:D:4266:LYS:HE3	1:D:4267:GLN:NE2	2.27	0.50
3:K:66:PHE:CZ	3:K:70:LEU:HD21	2.46	0.50
1:A:2580:LEU:O	1:A:2616:ARG:NH2	2.37	0.50
1:B:877:HIS:O	1:B:880:ARG:HD3	2.11	0.50
1:B:2580:LEU:O	1:B:2616:ARG:NH2	2.37	0.50
1:B:2629:ASN:OD1	1:B:2630:PHE:N	2.44	0.50
1:C:4921:PHE:HE2	1:C:4940:VAL:HG11	1.77	0.50
1:D:644:LEU:HD13	1:D:1630:LEU:HD21	1.93	0.50
1:D:1785:ASP:OD1	1:D:1786:ILE:N	2.43	0.50
1:D:3118:GLY:HA3	1:D:3167:PRO:HB3	1.93	0.50
1:D:4921:PHE:HE2	1:D:4940:VAL:HG11	1.77	0.50
1:A:686:VAL:HG13	1:A:687:THR:HG23	1.94	0.50
1:A:874:LEU:HD13	1:A:940:LEU:CD1	2.38	0.50
1:A:2720:PHE:HE1	1:A:2895:PHE:HD2	1.58	0.50
1:A:3157:GLU:O	1:A:3160:ALA:HB3	2.11	0.50
1:A:3591:LEU:HD21	3:I:86:ILE:HG12	1.93	0.50
1:A:3602:CYS:HB2	3:I:76:LYS:HG3	1.93	0.50
1:B:1118:SER:HB3	1:B:1204:VAL:HG11	1.92	0.50
1:B:2972:ASP:HB2	1:B:3032:CYS:SG	2.52	0.50
1:B:3057:LEU:HD12	1:B:3058:ARG:HG3	1.93	0.50
1:C:1785:ASP:OD1	1:C:1786:ILE:N	2.43	0.50
1:C:2972:ASP:HB2	1:C:3032:CYS:SG	2.52	0.50
1:A:1500:ARG:HG3	1:A:1505:LEU:HB2	1.93	0.50
1:A:1785:ASP:OD1	1:A:1786:ILE:N	2.43	0.50
1:A:3124:GLU:C	1:A:3126:VAL:H	2.13	0.50
2:F:22:THR:HG22	2:F:50:ARG:HG2	1.94	0.50
1:B:874:LEU:HD13	1:B:940:LEU:CD1	2.38	0.50
1:B:3124:GLU:C	1:B:3126:VAL:H	2.13	0.50
1:B:3247:SER:HA	1:B:3250:TRP:H	1.75	0.50
1:C:561:ARG:HB3	1:C:564:ARG:HD2	1.93	0.50
1:C:2888:LYS:HA	1:C:2891:ASP:OD2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4266:LYS:HE3	1:C:4267:GLN:NE2	2.26	0.50
1:D:2968:LEU:HD13	1:D:3029:ILE:HG12	1.92	0.50
1:D:3057:LEU:O	1:D:3060:PHE:HB3	2.11	0.50
1:D:4088:HIS:O	1:D:4092:LYS:N	2.39	0.50
1:A:181:LEU:N	1:A:212:TRP:O	2.35	0.50
1:A:1144:ARG:NH1	1:A:1191:ALA:O	2.44	0.50
1:A:3166:PHE:CG	1:A:3167:PRO:HD2	2.45	0.50
3:I:103:ALA:HA	3:I:106:LEU:HD12	1.93	0.50
1:B:332:ARG:NH1	1:B:339:ASP:OD1	2.42	0.50
1:B:4661:TYR:HB3	1:B:4665:ARG:HH21	1.75	0.50
1:C:1118:SER:HB3	1:C:1204:VAL:HG11	1.92	0.50
1:C:1685:LEU:HB3	1:C:1706:LEU:HD12	1.94	0.50
1:C:3108:LEU:HA	1:C:3111:HIS:CE1	2.46	0.50
1:C:4834:PRO:HB3	1:C:4843:ARG:HG2	1.92	0.50
1:D:655:MET:HE2	1:D:834:VAL:HG12	1.93	0.50
1:D:686:VAL:HG13	1:D:687:THR:HG23	1.94	0.50
1:D:943:LEU:HD22	1:D:1057:LEU:HD21	1.91	0.50
1:D:1079:SER:HB3	1:D:1084:ARG:HH22	1.77	0.50
1:D:1457:PHE:HA	1:D:1461:ARG:HH12	1.76	0.50
1:D:2176:VAL:HG22	1:D:2220:TYR:CZ	2.47	0.50
1:A:1041:ARG:HA	1:A:1044:LYS:HZ2	1.77	0.50
1:A:2972:ASP:HB2	1:A:3032:CYS:SG	2.52	0.50
1:A:3118:GLY:HA3	1:A:3167:PRO:HB3	1.93	0.50
1:A:3304:GLN:HA	1:A:3307:ILE:HG12	1.94	0.50
1:B:370:LEU:HD23	1:B:395:HIS:HB3	1.94	0.50
1:B:2176:VAL:HG22	1:B:2220:TYR:CZ	2.47	0.50
1:B:3304:GLN:HA	1:B:3307:ILE:HG12	1.94	0.50
1:C:655:MET:HE2	1:C:834:VAL:HG12	1.93	0.50
1:C:849:ASP:OD1	1:C:1214:ARG:NE	2.44	0.50
1:D:895:MET:O	1:D:899:GLU:HG2	2.11	0.50
1:D:1685:LEU:HB3	1:D:1706:LEU:HD12	1.94	0.50
1:D:2720:PHE:HE1	1:D:2895:PHE:HD2	1.58	0.50
1:D:2972:ASP:HB2	1:D:3032:CYS:SG	2.52	0.50
1:D:4897:TYR:OH	1:D:4963:GLU:OE1	2.22	0.50
3:J:66:PHE:CZ	3:J:70:LEU:HD21	2.46	0.50
3:L:66:PHE:CZ	3:L:70:LEU:HD21	2.46	0.50
1:A:1118:SER:HB3	1:A:1204:VAL:HG11	1.92	0.50
1:A:2629:ASN:OD1	1:A:2630:PHE:N	2.44	0.50
1:A:2968:LEU:HD13	1:A:3029:ILE:HG12	1.92	0.50
3:I:66:PHE:CZ	3:I:70:LEU:HD21	2.46	0.50
1:B:644:LEU:HD13	1:B:1630:LEU:HD21	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:686:VAL:HG13	1:B:687:THR:HG23	1.94	0.50
1:B:2202:TYR:O	1:B:2206:ILE:HG12	2.11	0.50
1:B:3313:GLN:HA	1:B:3316:LYS:HE3	1.93	0.50
1:C:2936:ALA:O	1:C:2940:ILE:HG12	2.11	0.50
1:D:1549:SER:OG	1:D:1551:ASN:O	2.27	0.50
1:D:4834:PRO:HB3	1:D:4843:ARG:HG2	1.92	0.50
1:A:561:ARG:HB3	1:A:564:ARG:HD2	1.93	0.50
1:A:3057:LEU:HD12	1:A:3058:ARG:HG3	1.93	0.50
1:A:3088:LYS:HG2	1:A:3091:THR:HG23	1.93	0.50
1:A:3245:TYR:O	1:A:3248:ARG:N	2.44	0.50
2:G:22:THR:HG22	2:G:50:ARG:HG2	1.94	0.50
2:H:29:GLY:N	2:H:38:ASP:O	2.37	0.50
1:B:1011:ARG:HB3	1:B:1016:TRP:HB2	1.93	0.50
1:C:1705:LEU:O	1:C:1709:ILE:HG13	2.12	0.50
1:C:3192:ARG:HD2	1:C:3197:LEU:HD12	1.94	0.50
1:C:3247:SER:HA	1:C:3250:TRP:H	1.75	0.50
1:D:1432:ILE:HG22	1:D:1500:ARG:HH21	1.77	0.50
1:D:2791:ARG:HA	1:D:2901:TYR:HA	1.94	0.50
3:J:103:ALA:HA	3:J:106:LEU:HD12	1.93	0.50
1:A:332:ARG:NH1	1:A:339:ASP:OD1	2.42	0.50
1:A:2245:ALA:HA	1:A:2248:MET:HE3	1.93	0.50
1:A:2936:ALA:O	1:A:2940:ILE:HG12	2.11	0.50
1:A:3081:THR:OG1	1:A:3147:TYR:OH	2.27	0.50
1:B:895:MET:O	1:B:899:GLU:HG2	2.11	0.50
1:B:1549:SER:OG	1:B:1551:ASN:O	2.26	0.50
1:B:1705:LEU:O	1:B:1709:ILE:HG13	2.12	0.50
1:B:2119:LEU:HB2	1:B:2152:ASN:ND2	2.27	0.50
1:B:4107:GLU:OE1	1:B:4149:TYR:OH	2.20	0.50
1:B:4266:LYS:HE3	1:B:4267:GLN:NE2	2.27	0.50
1:B:4271:VAL:HG22	1:B:4274:MET:HE2	1.94	0.50
1:C:624:ALA:HB2	1:C:1667:LEU:HD12	1.94	0.50
1:C:887:GLU:O	1:C:891:GLU:HG2	2.12	0.50
1:C:2273:GLY:O	1:C:2336:ARG:NH2	2.45	0.50
1:D:1705:LEU:O	1:D:1709:ILE:HG13	2.12	0.50
1:D:3245:TYR:O	1:D:3248:ARG:N	2.44	0.50
1:A:655:MET:HE2	1:A:834:VAL:HG12	1.94	0.49
1:A:3159:LEU:O	1:A:3162:PHE:HB2	2.12	0.49
1:A:3827:GLU:OE1	1:A:3827:GLU:N	2.37	0.49
1:A:4634:VAL:HG22	1:A:4640:PHE:HD1	1.77	0.49
1:B:561:ARG:HB3	1:B:564:ARG:HD2	1.93	0.49
1:B:2214:MET:HA	1:B:2214:MET:CE	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2734:MET:HE2	1:B:2823:PRO:HB2	1.93	0.49
1:B:2936:ALA:O	1:B:2940:ILE:HG12	2.11	0.49
1:B:4921:PHE:HE2	1:B:4940:VAL:HG11	1.76	0.49
1:C:332:ARG:NH1	1:C:339:ASP:OD1	2.42	0.49
1:C:2176:VAL:HG22	1:C:2220:TYR:CZ	2.47	0.49
1:C:3111:HIS:HA	1:C:3114:GLN:HG2	1.94	0.49
1:C:3313:GLN:HA	1:C:3316:LYS:HE3	1.93	0.49
1:C:4897:TYR:OH	1:C:4963:GLU:OE1	2.22	0.49
1:D:1500:ARG:HG3	1:D:1505:LEU:HB2	1.93	0.49
1:D:2610:LEU:HD13	1:D:2644:LEU:HD21	1.94	0.49
1:D:3108:LEU:HA	1:D:3111:HIS:CE1	2.47	0.49
1:D:3157:GLU:O	1:D:3160:ALA:HB3	2.11	0.49
1:D:3313:GLN:HA	1:D:3316:LYS:HE3	1.93	0.49
1:D:4113:THR:O	1:D:4117:THR:HG23	2.11	0.49
3:K:22:LYS:H	3:K:22:LYS:HD3	1.76	0.49
1:A:370:LEU:HD23	1:A:395:HIS:HB3	1.94	0.49
1:A:1079:SER:HB3	1:A:1084:ARG:HH22	1.77	0.49
1:A:1502:ASN:O	1:D:2824:ARG:NH2	2.45	0.49
1:A:2988:ARG:H	1:A:2989:PRO:CD	2.26	0.49
1:A:3108:LEU:HA	1:A:3111:HIS:CE1	2.47	0.49
1:A:3111:HIS:HA	1:A:3114:GLN:HG2	1.94	0.49
3:I:27:THR:HB	3:I:63:THR:HB	1.94	0.49
1:B:887:GLU:O	1:B:891:GLU:HG2	2.12	0.49
1:B:1952:ASN:OD1	1:B:1953:MET:N	2.45	0.49
1:B:3108:LEU:HA	1:B:3111:HIS:CE1	2.47	0.49
1:B:3111:HIS:HA	1:B:3114:GLN:HG2	1.94	0.49
1:B:4831:ILE:HG13	1:B:4843:ARG:NH2	2.28	0.49
1:C:1011:ARG:HB3	1:C:1016:TRP:HB2	1.93	0.49
1:C:1952:ASN:OD1	1:C:1953:MET:N	2.45	0.49
1:C:2214:MET:HA	1:C:2214:MET:CE	2.42	0.49
1:C:3192:ARG:NH2	1:C:3197:LEU:HB3	2.27	0.49
1:D:2936:ALA:O	1:D:2940:ILE:HG12	2.11	0.49
1:D:3111:HIS:HA	1:D:3114:GLN:HG2	1.94	0.49
3:L:5:LEU:HD23	3:L:10:ILE:HD13	1.94	0.49
1:A:2176:VAL:HG22	1:A:2220:TYR:CZ	2.47	0.49
1:A:4266:LYS:HE3	1:A:4267:GLN:NE2	2.27	0.49
1:B:3159:LEU:O	1:B:3162:PHE:HB2	2.12	0.49
1:B:4055:HIS:O	1:B:4057:HIS:N	2.46	0.49
1:D:1952:ASN:OD1	1:D:1953:MET:N	2.45	0.49
1:D:2214:MET:HA	1:D:2214:MET:CE	2.42	0.49
1:D:2734:MET:HE2	1:D:2823:PRO:HB2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:887:GLU:O	1:A:891:GLU:HG2	2.12	0.49
1:A:1952:ASN:OD1	1:A:1953:MET:N	2.45	0.49
1:A:2214:MET:HA	1:A:2214:MET:CE	2.42	0.49
1:A:2937:HIS:HB2	1:A:3014:LEU:HD12	1.95	0.49
2:H:22:THR:HG22	2:H:50:ARG:HG2	1.94	0.49
1:B:1685:LEU:HB3	1:B:1706:LEU:HD12	1.94	0.49
1:B:3118:GLY:HA3	1:B:3167:PRO:HB3	1.93	0.49
1:B:3192:ARG:HD2	1:B:3197:LEU:HD12	1.94	0.49
1:B:3699:CYS:SG	1:B:3731:LEU:HD12	2.52	0.49
1:C:874:LEU:HD13	1:C:940:LEU:CD1	2.38	0.49
1:C:2432:LEU:O	1:C:2436:ILE:HG13	2.12	0.49
1:C:3124:GLU:C	1:C:3126:VAL:H	2.13	0.49
1:D:470:LEU:HB2	1:D:475:LYS:HG3	1.95	0.49
1:D:624:ALA:HB2	1:D:1667:LEU:HD12	1.94	0.49
1:D:3172:GLU:HB2	1:D:3211:LEU:CD1	2.43	0.49
1:D:3187:LYS:HG3	1:D:3192:ARG:HD3	1.95	0.49
1:D:3192:ARG:NH2	1:D:3197:LEU:HB3	2.27	0.49
1:A:849:ASP:OD1	1:A:1214:ARG:NE	2.44	0.49
1:A:877:HIS:O	1:A:880:ARG:HD3	2.11	0.49
1:A:895:MET:HE3	1:A:978:PRO:HD2	1.93	0.49
1:A:1705:LEU:O	1:A:1709:ILE:HG13	2.12	0.49
1:A:2119:LEU:HB2	1:A:2152:ASN:ND2	2.27	0.49
1:A:2791:ARG:HA	1:A:2901:TYR:HA	1.94	0.49
1:A:3699:CYS:SG	1:A:3731:LEU:HD12	2.52	0.49
1:A:4055:HIS:O	1:A:4057:HIS:N	2.46	0.49
1:B:1564:MET:HE3	1:B:1565:PRO:HD2	1.93	0.49
1:B:3179:ASN:O	1:B:3182:SER:OG	2.24	0.49
1:B:3298:ARG:NH2	3:J:134:ASP:HA	2.28	0.49
1:B:4082:GLU:HA	1:B:4085:LYS:HG2	1.95	0.49
1:C:3172:GLU:HB2	1:C:3211:LEU:CD1	2.43	0.49
1:C:3187:LYS:HG3	1:C:3192:ARG:HD3	1.95	0.49
1:C:4608:ARG:NH2	1:C:4644:TYR:OH	2.45	0.49
3:L:27:THR:HB	3:L:63:THR:HB	1.95	0.49
3:K:5:LEU:HD23	3:K:10:ILE:HD13	1.94	0.49
1:A:644:LEU:HD13	1:A:1630:LEU:HD21	1.93	0.49
1:A:3049:GLY:HA3	1:A:3054:LYS:HE3	1.95	0.49
1:A:4268:MET:CE	1:B:4481:TRP:CZ2	2.95	0.49
1:B:624:ALA:HB2	1:B:1667:LEU:HD12	1.94	0.49
1:B:4834:PRO:HB3	1:B:4843:ARG:HG2	1.92	0.49
1:C:1079:SER:HB3	1:C:1084:ARG:HH22	1.77	0.49
1:C:1229:ILE:O	1:C:1233:GLN:NE2	2.37	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2772:ARG:O	1:C:2776:LYS:HG2	2.13	0.49
1:C:3118:GLY:HA3	1:C:3167:PRO:HB3	1.93	0.49
1:C:3304:GLN:HA	1:C:3307:ILE:HG12	1.94	0.49
1:C:4082:GLU:HA	1:C:4085:LYS:HG2	1.95	0.49
1:D:874:LEU:HD13	1:D:940:LEU:CD1	2.38	0.49
1:D:887:GLU:O	1:D:891:GLU:HG2	2.12	0.49
1:D:3057:LEU:HD12	1:D:3058:ARG:HG3	1.93	0.49
1:D:3192:ARG:HD2	1:D:3197:LEU:HD12	1.94	0.49
3:K:27:THR:HB	3:K:63:THR:HB	1.94	0.49
1:A:1011:ARG:HB3	1:A:1016:TRP:HB2	1.93	0.49
1:A:4520:TYR:O	1:B:4809:MET:HB2	2.13	0.49
2:E:67:MET:HE2	2:E:104:LEU:HB2	1.94	0.49
2:G:67:MET:HE2	2:G:104:LEU:HB2	1.94	0.49
1:B:3192:ARG:HA	1:B:3197:LEU:HD12	1.95	0.49
1:C:686:VAL:HG13	1:C:687:THR:HG23	1.94	0.49
1:C:895:MET:O	1:C:899:GLU:HG2	2.11	0.49
1:C:2610:LEU:HD13	1:C:2644:LEU:HD21	1.94	0.49
1:C:2791:ARG:HA	1:C:2901:TYR:HA	1.94	0.49
1:C:4110:PRO:O	1:C:4116:GLN:NE2	2.46	0.49
1:C:4831:ILE:HG13	1:C:4843:ARG:NH2	2.28	0.49
1:D:2937:HIS:HB2	1:D:3014:LEU:HD12	1.95	0.49
1:D:3304:GLN:HA	1:D:3307:ILE:HG12	1.94	0.49
3:K:57:ASP:OD2	3:K:62:GLY:N	2.40	0.49
1:A:882:ARG:HA	1:A:885:LEU:HB3	1.95	0.49
1:A:937:LEU:O	1:A:940:LEU:HG	2.13	0.49
1:A:2273:GLY:O	1:A:2336:ARG:NH2	2.45	0.49
1:A:3713:SER:O	1:A:3717:LYS:HG3	2.13	0.49
1:A:4520:TYR:HB3	1:B:4809:MET:HB2	1.95	0.49
1:A:4921:PHE:HE2	1:A:4940:VAL:HG11	1.77	0.49
2:H:67:MET:HE2	2:H:104:LEU:HB2	1.95	0.49
1:B:655:MET:HE2	1:B:834:VAL:HG12	1.94	0.49
1:B:1432:ILE:HG22	1:B:1500:ARG:HH21	1.77	0.49
1:B:2432:LEU:O	1:B:2436:ILE:HG13	2.12	0.49
1:C:181:LEU:N	1:C:212:TRP:O	2.35	0.49
1:C:3900:GLU:OE1	1:C:3904:ARG:NH2	2.45	0.49
1:D:661:LEU:HD23	1:D:673:TRP:CD1	2.48	0.49
1:D:1303:ARG:HA	1:D:1542:ALA:HA	1.95	0.49
1:D:2432:LEU:O	1:D:2436:ILE:HG13	2.12	0.49
1:D:3159:LEU:O	1:D:3162:PHE:HB2	2.12	0.49
1:D:3846:LEU:HB3	1:D:3854:PHE:CE2	2.48	0.49
1:D:3900:GLU:OE1	1:D:3904:ARG:NH2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3192:ARG:NH2	1:A:3197:LEU:HB3	2.27	0.49
1:A:3846:LEU:HB3	1:A:3854:PHE:CE2	2.48	0.49
2:E:22:THR:HG22	2:E:50:ARG:HG2	1.94	0.49
1:B:1502:ASN:OD1	1:B:1503:ASN:N	2.46	0.49
1:B:2273:GLY:O	1:B:2336:ARG:NH2	2.45	0.49
1:B:2418:ARG:NH2	1:C:156:GLU:OE2	2.43	0.49
1:B:3049:GLY:HA3	1:B:3054:LYS:HE3	1.95	0.49
1:B:3162:PHE:O	1:B:3245:TYR:CB	2.61	0.49
1:B:3164:GLY:CA	1:B:3247:SER:N	2.76	0.49
1:B:3187:LYS:HG3	1:B:3192:ARG:HD3	1.95	0.49
1:B:3298:ARG:NH2	3:J:133:GLY:O	2.43	0.49
1:B:4608:ARG:NH2	1:B:4644:TYR:OH	2.45	0.49
1:C:1432:ILE:HG22	1:C:1500:ARG:HH21	1.77	0.49
1:C:3192:ARG:HA	1:C:3197:LEU:HD12	1.95	0.49
1:C:4088:HIS:O	1:C:4092:LYS:N	2.39	0.49
1:D:2273:GLY:O	1:D:2336:ARG:NH2	2.45	0.49
1:D:3713:SER:O	1:D:3717:LYS:HG3	2.13	0.49
1:A:895:MET:O	1:A:899:GLU:HG2	2.11	0.49
1:A:1685:LEU:HB3	1:A:1706:LEU:HD12	1.94	0.49
1:A:2200:LEU:HD22	1:A:2214:MET:SD	2.53	0.49
1:A:2207:SER:HB3	1:A:2210:ASN:ND2	2.28	0.49
1:A:3192:ARG:HA	1:A:3197:LEU:HD12	1.95	0.49
1:A:4831:ILE:HG13	1:A:4843:ARG:NH2	2.28	0.49
1:B:849:ASP:OD1	1:B:1214:ARG:NE	2.44	0.49
1:B:1303:ARG:HA	1:B:1542:ALA:HA	1.95	0.49
1:B:1989:PRO:O	1:B:1993:ARG:HG3	2.13	0.49
1:B:2988:ARG:H	1:B:2989:PRO:CD	2.26	0.49
1:B:3172:GLU:HB2	1:B:3211:LEU:CD1	2.42	0.49
1:B:3312:PRO:O	1:B:3315:LEU:N	2.46	0.49
1:C:1502:ASN:OD1	1:C:1503:ASN:N	2.46	0.49
1:C:1564:MET:HE3	1:C:1565:PRO:HD2	1.93	0.49
1:C:2937:HIS:HB2	1:C:3014:LEU:HD12	1.95	0.49
1:C:3162:PHE:O	1:C:3245:TYR:CB	2.61	0.49
1:C:3699:CYS:SG	1:C:3731:LEU:HD12	2.52	0.49
1:C:3846:LEU:HB3	1:C:3854:PHE:CE2	2.48	0.49
1:D:2758:LYS:HE2	1:D:2763:LEU:HA	1.95	0.49
1:D:4055:HIS:O	1:D:4057:HIS:N	2.46	0.49
1:D:4735:ASN:HB3	1:D:4738:PHE:CD2	2.48	0.49
3:J:5:LEU:HD23	3:J:10:ILE:HD13	1.94	0.49
3:J:57:ASP:OD2	3:J:62:GLY:N	2.40	0.49
1:A:624:ALA:HB2	1:A:1667:LEU:HD12	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2575:SER:O	1:A:2579:GLN:HG2	2.13	0.48
1:A:2610:LEU:HD13	1:A:2644:LEU:HD21	1.94	0.48
3:I:5:LEU:HD23	3:I:10:ILE:HD13	1.94	0.48
1:B:240:HIS:HB2	1:C:168:GLN:HE21	1.77	0.48
1:B:937:LEU:O	1:B:940:LEU:HG	2.13	0.48
1:B:2791:ARG:HA	1:B:2901:TYR:HA	1.94	0.48
1:B:3269:ASN:O	1:B:3273:MET:HE1	2.12	0.48
1:C:661:LEU:HD23	1:C:673:TRP:CD1	2.48	0.48
1:C:3713:SER:O	1:C:3717:LYS:HG3	2.13	0.48
1:D:969:ASN:OD1	1:D:970:TYR:N	2.46	0.48
1:D:3312:PRO:O	1:D:3315:LEU:N	2.46	0.48
1:D:3699:CYS:SG	1:D:3731:LEU:HD12	2.52	0.48
1:D:4110:PRO:O	1:D:4116:GLN:NE2	2.46	0.48
3:K:122:VAL:O	3:K:125:MET:HG3	2.13	0.48
1:A:1303:ARG:HA	1:A:1542:ALA:HA	1.95	0.48
1:A:1931:ASP:OD1	1:A:1932:PHE:N	2.47	0.48
1:A:3162:PHE:C	1:A:3245:TYR:N	2.67	0.48
1:A:4082:GLU:HA	1:A:4085:LYS:HG2	1.95	0.48
1:B:674:TYR:OH	1:B:676:GLU:OE2	2.29	0.48
1:B:2772:ARG:O	1:B:2776:LYS:HG2	2.13	0.48
1:B:2937:HIS:HB2	1:B:3014:LEU:HD12	1.95	0.48
1:B:3846:LEU:HB3	1:B:3854:PHE:CE2	2.48	0.48
1:B:4110:PRO:O	1:B:4116:GLN:NE2	2.46	0.48
1:B:4634:VAL:HG22	1:B:4640:PHE:HD1	1.77	0.48
1:C:976:TYR:O	1:C:978:PRO:HD3	2.13	0.48
1:C:1303:ARG:HA	1:C:1542:ALA:HA	1.95	0.48
1:C:1953:MET:CE	1:C:1953:MET:HA	2.44	0.48
1:C:1989:PRO:O	1:C:1993:ARG:HG3	2.13	0.48
1:C:2200:LEU:HD22	1:C:2214:MET:SD	2.53	0.48
1:C:3071:THR:HA	1:C:3074:ASN:ND2	2.29	0.48
1:C:3109:PHE:HA	1:C:3112:ILE:HG22	1.95	0.48
1:C:3159:LEU:O	1:C:3162:PHE:HB2	2.12	0.48
1:D:798:ILE:HD12	1:D:800:VAL:HG22	1.95	0.48
1:D:882:ARG:HA	1:D:885:LEU:HB3	1.95	0.48
1:D:1011:ARG:HB3	1:D:1016:TRP:HB2	1.93	0.48
1:D:1833:ILE:O	1:D:1835:HIS:ND1	2.46	0.48
1:D:1944:TYR:HE1	1:D:3605:MET:HE1	1.78	0.48
1:D:3109:PHE:HA	1:D:3112:ILE:HG22	1.95	0.48
1:D:3162:PHE:O	1:D:3245:TYR:CB	2.61	0.48
1:A:1161:VAL:HG21	1:A:1225:LYS:HE3	1.95	0.48
1:A:1432:ILE:HG22	1:A:1500:ARG:HH21	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2415:GLU:OE1	1:A:2418:ARG:NH1	2.46	0.48
1:A:3172:GLU:HB2	1:A:3211:LEU:CD1	2.43	0.48
1:A:3312:PRO:O	1:A:3315:LEU:N	2.46	0.48
1:A:4694:LEU:HB2	1:D:4268:MET:HE3	1.95	0.48
1:B:798:ILE:HD12	1:B:800:VAL:HG22	1.96	0.48
1:B:1161:VAL:HG21	1:B:1225:LYS:HE3	1.96	0.48
1:B:2207:SER:HB3	1:B:2210:ASN:ND2	2.28	0.48
1:B:3713:SER:O	1:B:3717:LYS:HG3	2.13	0.48
1:C:937:LEU:O	1:C:940:LEU:HG	2.13	0.48
1:C:1161:VAL:HG21	1:C:1225:LYS:HE3	1.95	0.48
1:C:2119:LEU:HB2	1:C:2152:ASN:ND2	2.27	0.48
1:C:3162:PHE:C	1:C:3245:TYR:N	2.67	0.48
1:C:4055:HIS:O	1:C:4057:HIS:N	2.46	0.48
1:D:561:ARG:HB3	1:D:564:ARG:HD2	1.93	0.48
1:D:2119:LEU:HB2	1:D:2152:ASN:ND2	2.27	0.48
1:D:2415:GLU:OE1	1:D:2418:ARG:NH1	2.46	0.48
1:D:2988:ARG:H	1:D:2989:PRO:CD	2.26	0.48
1:A:470:LEU:HB2	1:A:475:LYS:HG3	1.95	0.48
1:A:2758:LYS:HE2	1:A:2763:LEU:HA	1.95	0.48
1:A:3187:LYS:HG3	1:A:3192:ARG:HD3	1.95	0.48
1:B:470:LEU:HB2	1:B:475:LYS:HG3	1.95	0.48
1:C:2988:ARG:H	1:C:2989:PRO:CD	2.26	0.48
1:D:2575:SER:O	1:D:2579:GLN:HG2	2.13	0.48
1:D:3063:ASN:ND2	1:D:3066:GLU:OE2	2.41	0.48
1:D:4831:ILE:HG13	1:D:4843:ARG:NH2	2.28	0.48
3:J:27:THR:HB	3:J:63:THR:HB	1.95	0.48
1:A:976:TYR:O	1:A:978:PRO:HD3	2.13	0.48
1:A:4110:PRO:O	1:A:4116:GLN:NE2	2.46	0.48
2:F:67:MET:HE2	2:F:104:LEU:HB2	1.94	0.48
1:B:969:ASN:OD1	1:B:970:TYR:N	2.46	0.48
1:B:2610:LEU:HD13	1:B:2644:LEU:HD21	1.95	0.48
1:B:2758:LYS:HE2	1:B:2763:LEU:HA	1.95	0.48
1:B:3192:ARG:NH2	1:B:3197:LEU:HB3	2.27	0.48
1:C:370:LEU:HD23	1:C:395:HIS:HB3	1.94	0.48
1:C:1931:ASP:OD1	1:C:1932:PHE:N	2.47	0.48
1:C:3164:GLY:N	1:C:3244:SER:CA	2.77	0.48
1:C:3182:SER:OG	1:C:3185:ASN:ND2	2.40	0.48
1:D:370:LEU:HD23	1:D:395:HIS:HB3	1.94	0.48
1:D:4634:VAL:HG22	1:D:4640:PHE:HD1	1.77	0.48
3:J:122:VAL:O	3:J:125:MET:HG3	2.13	0.48
3:L:100:TYR:HD1	3:L:138:ASN:HB3	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3031:ASN:HA	1:A:3034:HIS:NE2	2.29	0.48
1:A:3164:GLY:N	1:A:3244:SER:CA	2.77	0.48
1:B:661:LEU:HD23	1:B:673:TRP:CD1	2.48	0.48
1:B:976:TYR:O	1:B:978:PRO:HD3	2.13	0.48
1:B:2192:MET:HA	1:B:2192:MET:CE	2.44	0.48
1:B:2443:PRO:HD3	1:B:2512:MET:HG2	1.96	0.48
1:B:2575:SER:O	1:B:2579:GLN:HG2	2.13	0.48
1:B:3584:LYS:HG2	3:J:145:MET:HA	1.94	0.48
1:C:798:ILE:HD12	1:C:800:VAL:HG22	1.96	0.48
1:C:2192:MET:HA	1:C:2192:MET:CE	2.44	0.48
1:C:3240:PRO:O	1:C:3243:CYS:HB2	2.13	0.48
1:C:3925:GLN:NE2	1:C:4934:THR:HA	2.29	0.48
1:D:937:LEU:O	1:D:940:LEU:HG	2.13	0.48
1:D:1931:ASP:OD1	1:D:1932:PHE:N	2.47	0.48
1:D:3049:GLY:HA3	1:D:3054:LYS:HE3	1.95	0.48
1:D:3192:ARG:HA	1:D:3197:LEU:HD12	1.95	0.48
1:A:1035:TYR:O	1:A:1043:LYS:NZ	2.25	0.48
1:A:2432:LEU:O	1:A:2436:ILE:HG13	2.12	0.48
1:A:4521:LYS:HE2	1:A:4521:LYS:HB2	1.61	0.48
1:B:1833:ILE:O	1:B:1835:HIS:ND1	2.46	0.48
1:B:3109:PHE:HA	1:B:3112:ILE:HG22	1.96	0.48
1:C:470:LEU:HB2	1:C:475:LYS:HG3	1.95	0.48
1:C:3164:GLY:CA	1:C:3247:SER:N	2.76	0.48
1:C:4011:GLU:HG3	1:C:4015:LYS:HZ2	1.77	0.48
1:C:4634:VAL:HG22	1:C:4640:PHE:HD1	1.77	0.48
1:C:4735:ASN:HB3	1:C:4738:PHE:CD2	2.48	0.48
1:D:1041:ARG:HA	1:D:1044:LYS:HZ2	1.79	0.48
1:D:3031:ASN:HA	1:D:3034:HIS:NE2	2.29	0.48
1:D:3081:THR:OG1	1:D:3147:TYR:OH	2.27	0.48
1:D:4268:MET:HA	1:D:4271:VAL:HB	1.96	0.48
1:A:967:PRO:O	1:A:971:GLN:HG2	2.14	0.48
1:A:3162:PHE:O	1:A:3245:TYR:CB	2.61	0.48
1:A:3935:LEU:HD23	1:A:3940:LEU:HD22	1.96	0.48
1:A:4268:MET:HA	1:A:4271:VAL:HB	1.96	0.48
3:I:100:TYR:HD1	3:I:138:ASN:HB3	1.78	0.48
1:B:2418:ARG:HH21	1:C:156:GLU:CD	2.17	0.48
1:B:3031:ASN:HA	1:B:3034:HIS:NE2	2.29	0.48
1:C:963:LYS:NZ	1:C:979:ALA:O	2.27	0.48
1:C:2443:PRO:HD3	1:C:2512:MET:HG2	1.96	0.48
1:C:2575:SER:O	1:C:2579:GLN:HG2	2.13	0.48
1:C:3179:ASN:O	1:C:3182:SER:OG	2.24	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4795:LYS:HA	1:C:4795:LYS:HD2	1.67	0.48
1:D:332:ARG:NH1	1:D:339:ASP:OD1	2.42	0.48
1:D:1502:ASN:OD1	1:D:1503:ASN:N	2.46	0.48
1:D:1953:MET:HA	1:D:1953:MET:CE	2.44	0.48
1:D:2192:MET:HA	1:D:2192:MET:CE	2.44	0.48
1:D:3148:VAL:HG12	1:D:3152:ARG:NH1	2.29	0.48
1:D:3164:GLY:N	1:D:3244:SER:CA	2.77	0.48
1:A:661:LEU:HD23	1:A:673:TRP:CD1	2.48	0.48
1:A:969:ASN:OD1	1:A:970:TYR:N	2.46	0.48
1:A:1833:ILE:O	1:A:1835:HIS:ND1	2.46	0.48
1:A:2772:ARG:O	1:A:2776:LYS:HG2	2.13	0.48
1:A:3165:ALA:HA	1:A:3248:ARG:CA	2.44	0.48
1:A:3192:ARG:HD2	1:A:3197:LEU:HD12	1.94	0.48
1:A:4046:ARG:HG3	1:A:4050:LYS:NZ	2.29	0.48
1:A:4177:VAL:HG11	1:A:4880:VAL:HA	1.96	0.48
1:A:4735:ASN:HB3	1:A:4738:PHE:CD2	2.48	0.48
1:A:4829:ASP:N	1:D:4822:ARG:HH12	2.12	0.48
2:G:19:LYS:HA	2:G:19:LYS:CE	2.44	0.48
1:B:1953:MET:HA	1:B:1953:MET:CE	2.44	0.48
1:B:2415:GLU:OE1	1:B:2418:ARG:NH1	2.46	0.48
1:B:3160:ALA:HA	1:B:3240:PRO:C	2.34	0.48
1:B:3240:PRO:O	1:B:3243:CYS:HB2	2.13	0.48
1:C:3049:GLY:HA3	1:C:3054:LYS:HE3	1.95	0.48
1:C:3160:ALA:HA	1:C:3240:PRO:C	2.34	0.48
1:C:3319:PHE:HD2	1:C:3323:MET:HE1	1.79	0.48
1:D:2200:LEU:HD22	1:D:2214:MET:SD	2.53	0.48
1:D:2772:ARG:O	1:D:2776:LYS:HG2	2.13	0.48
1:D:3071:THR:HA	1:D:3074:ASN:ND2	2.29	0.48
1:D:4608:ARG:NH2	1:D:4644:TYR:OH	2.45	0.48
1:A:3164:GLY:CA	1:A:3247:SER:N	2.76	0.48
2:E:78:THR:OG1	2:E:80:ASP:OD1	2.29	0.48
1:B:882:ARG:HA	1:B:885:LEU:HB3	1.95	0.48
1:B:1682:GLU:OE2	1:B:1783:PRO:HG2	2.14	0.48
1:B:2200:LEU:HD22	1:B:2214:MET:SD	2.53	0.48
1:B:3008:PHE:HE1	1:B:3104:MET:HE1	1.79	0.48
1:B:3071:THR:HA	1:B:3074:ASN:ND2	2.29	0.48
1:B:3165:ALA:HA	1:B:3248:ARG:CA	2.44	0.48
1:C:964:MET:SD	1:C:964:MET:N	2.81	0.48
1:C:3845:LEU:HD23	1:C:3848:GLU:HG3	1.96	0.48
1:D:976:TYR:O	1:D:978:PRO:HD3	2.13	0.48
1:D:1682:GLU:OE2	1:D:1783:PRO:HG2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3183:ILE:O	1:D:3187:LYS:HG2	2.14	0.48
1:D:4046:ARG:HG3	1:D:4050:LYS:NZ	2.29	0.48
3:J:100:TYR:HD1	3:J:138:ASN:HB3	1.78	0.48
3:K:138:ASN:OD1	3:K:141:GLU:N	2.39	0.48
1:A:798:ILE:HD12	1:A:800:VAL:HG22	1.96	0.47
1:B:1079:SER:HB3	1:B:1084:ARG:HH22	1.77	0.47
1:B:3935:LEU:HD23	1:B:3940:LEU:HD22	1.96	0.47
1:B:4045:LYS:HD2	1:B:4067:LEU:HD13	1.96	0.47
1:B:4735:ASN:HB3	1:B:4738:PHE:CD2	2.48	0.47
1:C:2322:ARG:NH2	1:C:2415:GLU:OE2	2.47	0.47
1:C:3604:ARG:HA	3:K:52:MET:CE	2.43	0.47
1:D:258:ARG:NH1	1:D:317:MET:HA	2.29	0.47
1:D:1161:VAL:HG21	1:D:1225:LYS:HE3	1.95	0.47
3:L:122:VAL:O	3:L:125:MET:HG3	2.13	0.47
1:A:258:ARG:NH1	1:A:317:MET:HA	2.29	0.47
1:A:1502:ASN:OD1	1:A:1503:ASN:N	2.46	0.47
1:A:1953:MET:HA	1:A:1953:MET:CE	2.44	0.47
1:A:3240:PRO:O	1:A:3243:CYS:HB2	2.13	0.47
1:A:3845:LEU:HD23	1:A:3848:GLU:HG3	1.95	0.47
1:A:4045:LYS:HD2	1:A:4067:LEU:HD13	1.96	0.47
1:B:3148:VAL:HG12	1:B:3152:ARG:NH1	2.29	0.47
1:B:3162:PHE:C	1:B:3245:TYR:N	2.67	0.47
1:B:3587:TRP:O	3:J:146:MET:HE3	2.14	0.47
1:B:3925:GLN:NE2	1:B:4934:THR:HA	2.29	0.47
1:B:4011:GLU:OE1	1:B:4121:LEU:HB3	2.15	0.47
1:B:4177:VAL:HG11	1:B:4880:VAL:HA	1.96	0.47
1:C:2415:GLU:OE1	1:C:2418:ARG:NH1	2.46	0.47
1:C:2798:MET:HB3	1:D:1498:GLN:HE22	1.80	0.47
1:C:3312:PRO:O	1:C:3315:LEU:N	2.46	0.47
1:D:255:GLU:OE2	1:D:255:GLU:N	2.45	0.47
1:D:967:PRO:O	1:D:971:GLN:HG2	2.14	0.47
1:D:3162:PHE:C	1:D:3245:TYR:N	2.67	0.47
1:D:3596:LYS:HE2	3:L:19:LEU:HB3	1.96	0.47
1:D:4082:GLU:HA	1:D:4085:LYS:HG2	1.95	0.47
1:D:4827:ILE:O	1:D:4831:ILE:HG12	2.15	0.47
1:A:1550:PRO:HD2	1:D:2830:ASN:OD1	2.14	0.47
1:A:2322:ARG:NH2	1:A:2415:GLU:OE2	2.47	0.47
1:A:3148:VAL:HG12	1:A:3152:ARG:NH1	2.29	0.47
1:A:4694:LEU:HB2	1:D:4268:MET:HE2	1.95	0.47
2:F:78:THR:OG1	2:F:80:ASP:OD1	2.29	0.47
3:I:122:VAL:O	3:I:125:MET:HG3	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1931:ASP:OD1	1:B:1932:PHE:N	2.47	0.47
1:B:3900:GLU:OE1	1:B:3904:ARG:NH2	2.45	0.47
1:B:4046:ARG:HG3	1:B:4050:LYS:NZ	2.29	0.47
1:C:882:ARG:HA	1:C:885:LEU:HB3	1.95	0.47
1:C:969:ASN:OD1	1:C:970:TYR:N	2.47	0.47
1:C:2207:SER:HB3	1:C:2210:ASN:ND2	2.28	0.47
1:C:3063:ASN:ND2	1:C:3066:GLU:OE2	2.41	0.47
1:C:4011:GLU:OE1	1:C:4121:LEU:HB3	2.15	0.47
1:D:3935:LEU:HD23	1:D:3940:LEU:HD22	1.96	0.47
3:K:100:TYR:HD1	3:K:138:ASN:HB3	1.78	0.47
1:A:2691:LYS:HB3	1:A:2694:SER:OG	2.15	0.47
1:A:3183:ILE:O	1:A:3187:LYS:HG2	2.14	0.47
1:A:3319:PHE:HD2	1:A:3323:MET:HE1	1.78	0.47
2:G:29:GLY:N	2:G:38:ASP:O	2.37	0.47
1:B:1491:GLY:O	1:B:1494:MET:HG2	2.15	0.47
1:B:2691:LYS:HB3	1:B:2694:SER:OG	2.15	0.47
1:C:258:ARG:NH1	1:C:317:MET:HA	2.29	0.47
1:C:2704:GLN:OE1	1:C:2704:GLN:N	2.46	0.47
1:C:2758:LYS:HE2	1:C:2763:LEU:HA	1.95	0.47
1:C:3183:ILE:O	1:C:3187:LYS:HG2	2.14	0.47
1:C:3190:ARG:HH21	1:C:3194:ALA:HB2	1.80	0.47
1:C:3935:LEU:HD23	1:C:3940:LEU:HD22	1.96	0.47
1:C:4641:PRO:HB3	1:C:4644:TYR:HB3	1.97	0.47
1:D:2207:SER:HB3	1:D:2210:ASN:ND2	2.28	0.47
1:A:441:LYS:HD3	1:A:443:SER:H	1.80	0.47
1:A:1989:PRO:O	1:A:1993:ARG:HG3	2.13	0.47
1:A:2418:ARG:NH2	1:B:156:GLU:OE2	2.42	0.47
1:A:2891:ASP:OD1	1:A:2892:ILE:N	2.48	0.47
1:A:3109:PHE:HA	1:A:3112:ILE:HG22	1.96	0.47
1:A:3179:ASN:O	1:A:3182:SER:OG	2.24	0.47
1:A:4011:GLU:HG3	1:A:4015:LYS:HZ2	1.80	0.47
1:B:2886:ARG:HG2	1:B:2890:GLN:OE1	2.15	0.47
1:B:2891:ASP:OD1	1:B:2892:ILE:N	2.48	0.47
1:B:4481:TRP:HA	1:B:4484:ILE:HG12	1.97	0.47
1:C:2886:ARG:HG2	1:C:2890:GLN:OE1	2.15	0.47
1:C:4045:LYS:HD2	1:C:4067:LEU:HD13	1.96	0.47
1:D:2886:ARG:HG2	1:D:2890:GLN:OE1	2.15	0.47
1:D:3164:GLY:CA	1:D:3247:SER:N	2.76	0.47
1:D:4011:GLU:OE1	1:D:4121:LEU:HB3	2.15	0.47
1:A:2142:MET:HG3	1:A:2192:MET:SD	2.55	0.47
1:B:967:PRO:O	1:B:971:GLN:HG2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2142:MET:HG3	1:B:2192:MET:SD	2.55	0.47
1:B:3845:LEU:HD23	1:B:3848:GLU:HG3	1.95	0.47
1:C:2172:MET:O	1:C:2176:VAL:N	2.43	0.47
1:C:3148:VAL:HG12	1:C:3152:ARG:NH1	2.29	0.47
1:C:3161:ALA:N	1:C:3244:SER:HB3	2.30	0.47
1:C:3165:ALA:HA	1:C:3248:ARG:CA	2.44	0.47
1:D:2322:ARG:NH2	1:D:2415:GLU:OE2	2.47	0.47
1:D:2891:ASP:OD1	1:D:2892:ILE:N	2.48	0.47
1:D:3072:MET:HE1	1:D:3136:SER:O	2.15	0.47
1:A:125:TYR:O	1:A:414:ARG:NH1	2.48	0.47
1:A:1491:GLY:O	1:A:1494:MET:HG2	2.15	0.47
1:A:1682:GLU:OE2	1:A:1783:PRO:HG2	2.14	0.47
1:A:1914:CYS:O	1:A:1918:VAL:HG23	2.15	0.47
1:A:2062:ILE:HG21	1:A:2087:LEU:HG	1.96	0.47
1:A:2443:PRO:HD3	1:A:2512:MET:HG2	1.95	0.47
1:A:3071:THR:HA	1:A:3074:ASN:ND2	2.29	0.47
1:A:3160:ALA:HA	1:A:3240:PRO:C	2.34	0.47
1:A:4011:GLU:OE1	1:A:4121:LEU:HB3	2.15	0.47
1:A:4481:TRP:HA	1:A:4484:ILE:HG12	1.97	0.47
1:A:4608:ARG:NH2	1:A:4644:TYR:OH	2.45	0.47
2:H:19:LYS:HA	2:H:19:LYS:CE	2.44	0.47
1:B:2062:ILE:HG21	1:B:2087:LEU:HG	1.96	0.47
1:B:2123:LEU:HG	1:B:2127:ARG:HD2	1.97	0.47
1:B:3063:ASN:ND2	1:B:3066:GLU:OE2	2.41	0.47
1:B:4641:PRO:HB3	1:B:4644:TYR:HB3	1.97	0.47
1:C:255:GLU:OE2	1:C:255:GLU:N	2.45	0.47
1:C:1491:GLY:O	1:C:1494:MET:HG2	2.15	0.47
1:C:1682:GLU:OE2	1:C:1783:PRO:HG2	2.14	0.47
1:C:1833:ILE:O	1:C:1835:HIS:ND1	2.46	0.47
1:C:1945:ASN:O	1:C:1949:GLN:HG2	2.15	0.47
1:C:2062:ILE:HG21	1:C:2087:LEU:HG	1.96	0.47
1:C:2891:ASP:OD1	1:C:2892:ILE:N	2.48	0.47
1:C:3031:ASN:HA	1:C:3034:HIS:NE2	2.29	0.47
1:C:4827:ILE:O	1:C:4831:ILE:HG12	2.15	0.47
1:D:125:TYR:O	1:D:414:ARG:NH1	2.48	0.47
1:D:1945:ASN:O	1:D:1949:GLN:HG2	2.15	0.47
1:D:3240:PRO:O	1:D:3243:CYS:HB2	2.13	0.47
1:D:3319:PHE:HD2	1:D:3323:MET:HE1	1.80	0.47
1:D:4481:TRP:HA	1:D:4484:ILE:HG12	1.97	0.47
1:D:4654:MET:HE3	1:D:4663:ARG:NE	2.29	0.47
1:A:882:ARG:HH22	1:A:936:SER:HB2	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1795:LEU:HD13	1:A:1842:ILE:HD11	1.97	0.47
1:A:4283:PHE:CD2	1:B:4491:LEU:HD13	2.50	0.47
1:A:4827:ILE:O	1:A:4831:ILE:HG12	2.15	0.47
2:G:79:PRO:O	2:G:84:GLY:HA2	2.15	0.47
2:H:79:PRO:O	2:H:84:GLY:HA2	2.15	0.47
1:B:258:ARG:NH1	1:B:317:MET:HA	2.29	0.47
1:B:1945:ASN:O	1:B:1949:GLN:HG2	2.15	0.47
1:C:4046:ARG:HG3	1:C:4050:LYS:NZ	2.29	0.47
1:D:1989:PRO:O	1:D:1993:ARG:HG3	2.13	0.47
1:D:2933:VAL:HB	1:D:3010:LYS:HE3	1.97	0.47
2:F:79:PRO:O	2:F:84:GLY:HA2	2.15	0.47
1:B:882:ARG:HH22	1:B:936:SER:HB2	1.79	0.47
1:B:3237:VAL:O	1:B:3240:PRO:HD2	2.15	0.47
1:B:4088:HIS:O	1:B:4092:LYS:N	2.39	0.47
1:B:4268:MET:HA	1:B:4271:VAL:HB	1.96	0.47
1:C:967:PRO:O	1:C:971:GLN:HG2	2.14	0.47
1:C:2603:ALA:C	1:C:2606:PRO:HD2	2.35	0.47
1:C:2856:LYS:O	1:C:2860:LEU:HD23	2.15	0.47
1:C:3237:VAL:O	1:C:3240:PRO:HD2	2.15	0.47
1:D:3322:LEU:O	1:D:3326:LEU:CB	2.63	0.47
1:A:2933:VAL:HB	1:A:3010:LYS:HE3	1.97	0.47
1:A:3113:GLY:HA2	1:A:3248:ARG:NH2	2.30	0.47
1:A:3164:GLY:CA	1:A:3244:SER:C	2.84	0.47
1:A:3925:GLN:NE2	1:A:4934:THR:HA	2.29	0.47
1:B:125:TYR:O	1:B:414:ARG:NH1	2.48	0.47
1:B:255:GLU:OE2	1:B:255:GLU:N	2.45	0.47
1:B:2704:GLN:OE1	1:B:2704:GLN:N	2.47	0.47
1:B:3161:ALA:N	1:B:3244:SER:HB3	2.30	0.47
1:B:3584:LYS:HB3	3:J:145:MET:O	2.15	0.47
1:C:2123:LEU:HG	1:C:2127:ARG:HD2	1.97	0.47
1:C:2734:MET:HE3	1:C:2825:ALA:HB2	1.96	0.47
1:C:3322:LEU:O	1:C:3326:LEU:CB	2.63	0.47
1:C:4268:MET:HA	1:C:4271:VAL:HB	1.96	0.47
1:D:1229:ILE:O	1:D:1233:GLN:NE2	2.37	0.47
1:D:3161:ALA:O	1:D:3244:SER:O	2.33	0.47
1:D:3165:ALA:HA	1:D:3248:ARG:CA	2.44	0.47
1:D:4177:VAL:HG11	1:D:4880:VAL:HA	1.96	0.47
1:A:1945:ASN:O	1:A:1949:GLN:HG2	2.15	0.46
1:A:2856:LYS:O	1:A:2860:LEU:HD23	2.15	0.46
1:A:3882:GLN:HG2	1:A:3943:ALA:HA	1.98	0.46
1:A:4707:MET:HG3	1:D:4252:ILE:CG2	2.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:441:LYS:HD3	1:B:443:SER:H	1.80	0.46
1:B:448:PRO:HB2	1:B:451:SER:OG	2.15	0.46
1:B:3106:SER:O	1:B:3110:GLU:HG2	2.15	0.46
1:B:3183:ILE:O	1:B:3187:LYS:HG2	2.14	0.46
1:B:3219:VAL:O	1:B:3223:GLU:OE1	2.33	0.46
1:B:4897:TYR:OH	1:B:4963:GLU:OE1	2.22	0.46
1:C:448:PRO:HB2	1:C:451:SER:OG	2.15	0.46
1:C:562:LEU:HG	1:C:600:LEU:HD13	1.97	0.46
1:C:1795:LEU:HD13	1:C:1842:ILE:HD11	1.97	0.46
1:C:2142:MET:HG3	1:C:2192:MET:SD	2.55	0.46
1:C:3062:ASP:HB2	1:C:3132:ARG:HH22	1.80	0.46
1:C:3161:ALA:O	1:C:3244:SER:O	2.33	0.46
1:C:4906:GLU:OE2	1:D:4182:GLU:HG3	2.15	0.46
1:D:448:PRO:HB2	1:D:451:SER:OG	2.15	0.46
1:D:3106:SER:O	1:D:3110:GLU:HG2	2.15	0.46
1:A:1978:ASN:HB3	1:A:1983:LYS:HE2	1.98	0.46
1:A:2603:ALA:C	1:A:2606:PRO:HD2	2.35	0.46
1:A:3069:GLU:O	1:A:3073:GLU:OE1	2.34	0.46
2:E:79:PRO:O	2:E:84:GLY:HA2	2.15	0.46
1:B:2603:ALA:C	1:B:2606:PRO:HD2	2.35	0.46
1:B:4654:MET:HE3	1:B:4663:ARG:NE	2.31	0.46
1:C:1914:CYS:O	1:C:1918:VAL:HG23	2.15	0.46
1:C:2691:LYS:HB3	1:C:2694:SER:OG	2.15	0.46
1:C:2830:ASN:HB3	1:D:1434:PRO:O	2.15	0.46
1:C:4481:TRP:HA	1:C:4484:ILE:HG12	1.97	0.46
1:D:882:ARG:HH22	1:D:936:SER:HB2	1.79	0.46
1:D:1491:GLY:O	1:D:1494:MET:HG2	2.15	0.46
1:D:3069:GLU:O	1:D:3073:GLU:OE1	2.34	0.46
1:D:3161:ALA:N	1:D:3244:SER:HB3	2.30	0.46
1:D:3164:GLY:CA	1:D:3244:SER:C	2.84	0.46
1:D:3190:ARG:HH21	1:D:3194:ALA:HB2	1.80	0.46
1:D:3845:LEU:HD23	1:D:3848:GLU:HG3	1.95	0.46
3:K:69:PHE:O	3:K:73:MET:HG2	2.16	0.46
1:A:2123:LEU:HG	1:A:2127:ARG:HD2	1.97	0.46
1:A:3190:ARG:HH21	1:A:3194:ALA:HB2	1.80	0.46
1:A:3237:VAL:O	1:A:3240:PRO:HD2	2.15	0.46
1:A:4245:LEU:CD1	1:B:4626:ILE:HG13	2.45	0.46
1:B:895:MET:HE3	1:B:978:PRO:HD2	1.96	0.46
1:B:2856:LYS:O	1:B:2860:LEU:HD23	2.16	0.46
1:B:3164:GLY:N	1:B:3244:SER:CA	2.77	0.46
1:C:2933:VAL:HB	1:C:3010:LYS:HE3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3113:GLY:HA2	1:C:3248:ARG:NH2	2.30	0.46
1:D:756:SER:OG	1:D:769:ARG:HB3	2.16	0.46
1:D:1978:ASN:HB3	1:D:1983:LYS:HE2	1.98	0.46
1:D:2691:LYS:HB3	1:D:2694:SER:OG	2.15	0.46
1:D:4045:LYS:HD2	1:D:4067:LEU:HD13	1.96	0.46
1:A:2704:GLN:OE1	1:A:2704:GLN:N	2.46	0.46
1:A:3159:LEU:O	1:A:3241:MET:HA	2.16	0.46
1:B:880:ARG:NH1	1:B:881:ILE:HB	2.31	0.46
1:B:2586:GLN:NE2	1:B:2636:GLU:OE1	2.48	0.46
1:B:3081:THR:OG1	1:B:3147:TYR:OH	2.27	0.46
1:B:3164:GLY:CA	1:B:3244:SER:C	2.84	0.46
1:C:882:ARG:HH22	1:C:936:SER:HB2	1.79	0.46
1:C:3219:VAL:O	1:C:3223:GLU:OE1	2.33	0.46
1:C:3982:LEU:HB3	1:C:3999:MET:HE1	1.97	0.46
1:C:4177:VAL:HG11	1:C:4880:VAL:HA	1.96	0.46
1:C:4521:LYS:HB2	1:C:4521:LYS:HE2	1.61	0.46
1:D:131:CYS:SG	1:D:150:GLN:HB2	2.56	0.46
1:D:2142:MET:HG3	1:D:2192:MET:SD	2.55	0.46
1:D:2443:PRO:HD3	1:D:2512:MET:HG2	1.95	0.46
1:D:3982:LEU:HB3	1:D:3999:MET:HE1	1.96	0.46
3:L:57:ASP:OD2	3:L:62:GLY:N	2.40	0.46
3:L:69:PHE:O	3:L:73:MET:HG2	2.16	0.46
1:A:448:PRO:HB2	1:A:451:SER:OG	2.15	0.46
1:A:880:ARG:NH1	1:A:881:ILE:HB	2.31	0.46
1:A:2841:ALA:HB2	1:A:2893:LEU:HD12	1.98	0.46
1:A:3975:GLN:O	1:A:3979:VAL:HG23	2.16	0.46
1:B:3161:ALA:O	1:B:3244:SER:O	2.33	0.46
1:B:3190:ARG:HH21	1:B:3194:ALA:HB2	1.80	0.46
1:B:4055:HIS:C	1:B:4056:LYS:HG2	2.36	0.46
1:B:4827:ILE:O	1:B:4831:ILE:HG12	2.15	0.46
1:C:131:CYS:SG	1:C:150:GLN:HB2	2.56	0.46
1:C:880:ARG:NH1	1:C:881:ILE:HB	2.31	0.46
1:C:1944:TYR:HE1	1:C:3605:MET:HE1	1.81	0.46
1:C:3069:GLU:O	1:C:3073:GLU:OE1	2.34	0.46
1:C:3106:SER:O	1:C:3110:GLU:HG2	2.16	0.46
1:D:1176:THR:HG22	1:D:1181:ILE:HG13	1.98	0.46
1:D:1914:CYS:O	1:D:1918:VAL:HG23	2.15	0.46
1:D:3113:GLY:HA2	1:D:3248:ARG:NH2	2.30	0.46
1:D:3160:ALA:HA	1:D:3240:PRO:C	2.34	0.46
1:A:2586:GLN:NE2	1:A:2636:GLU:OE1	2.48	0.46
1:A:2927:GLN:O	1:A:2931:ARG:HD3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3106:SER:O	1:A:3110:GLU:HG2	2.15	0.46
1:A:3161:ALA:N	1:A:3244:SER:HB3	2.30	0.46
1:A:3219:VAL:O	1:A:3223:GLU:OE1	2.33	0.46
1:A:3297:LYS:HE2	3:I:136:GLN:HB2	1.98	0.46
1:A:4667:SER:OG	1:A:4672:MET:O	2.34	0.46
1:B:769:ARG:HH21	1:B:816:PRO:HG3	1.80	0.46
1:B:1795:LEU:HD13	1:B:1842:ILE:HD11	1.97	0.46
1:B:3069:GLU:O	1:B:3073:GLU:OE1	2.33	0.46
1:B:3113:GLY:HA2	1:B:3248:ARG:NH2	2.30	0.46
1:B:3322:LEU:HB3	1:B:3323:MET:CE	2.46	0.46
1:C:2927:GLN:O	1:C:2931:ARG:HD3	2.16	0.46
1:C:3002:GLU:HB3	1:C:3044:THR:HG21	1.97	0.46
1:C:3322:LEU:HB3	1:C:3323:MET:CE	2.46	0.46
1:D:2701:PHE:CD1	1:D:2873:PRO:HG3	2.51	0.46
1:D:4194:GLU:HG2	1:D:4645:TRP:HZ3	1.80	0.46
1:D:4641:PRO:HB3	1:D:4644:TYR:HB3	1.97	0.46
1:A:2701:PHE:CD1	1:A:2873:PRO:HG3	2.51	0.46
1:A:2886:ARG:HG2	1:A:2890:GLN:OE1	2.15	0.46
1:A:4897:TYR:OH	1:A:4963:GLU:OE1	2.22	0.46
2:E:29:GLY:N	2:E:38:ASP:O	2.37	0.46
3:I:69:PHE:O	3:I:73:MET:HG2	2.16	0.46
1:B:1978:ASN:HB3	1:B:1983:LYS:HE2	1.98	0.46
1:B:2465:LYS:O	1:B:2469:VAL:HG23	2.16	0.46
1:B:2841:ALA:HB2	1:B:2893:LEU:HD12	1.98	0.46
1:B:4155:SER:O	1:B:4159:GLN:HG2	2.16	0.46
1:C:3159:LEU:O	1:C:3241:MET:HA	2.16	0.46
1:D:513:HIS:O	1:D:517:VAL:HG23	2.16	0.46
1:D:2856:LYS:O	1:D:2860:LEU:HD23	2.15	0.46
1:D:3062:ASP:HB2	1:D:3132:ARG:HH22	1.81	0.46
1:D:3237:VAL:O	1:D:3240:PRO:HD2	2.15	0.46
1:D:3882:GLN:HG2	1:D:3943:ALA:HA	1.98	0.46
1:D:3925:GLN:NE2	1:D:4934:THR:HA	2.29	0.46
1:D:4156:SER:HB3	1:D:4923:MET:HE1	1.98	0.46
1:D:4663:ARG:NH1	1:D:4663:ARG:HB2	2.31	0.46
1:A:842:GLN:HG2	1:A:1605:LYS:HE3	1.97	0.46
1:A:2192:MET:HA	1:A:2192:MET:CE	2.44	0.46
1:A:2582:PRO:HG3	1:A:2617:CYS:SG	2.56	0.46
1:A:3062:ASP:HB2	1:A:3132:ARG:HH22	1.81	0.46
1:A:3830:LEU:HD13	1:A:3833:ASP:OD1	2.16	0.46
1:A:4088:HIS:O	1:A:4092:LYS:N	2.39	0.46
1:A:4654:MET:HE3	1:A:4663:ARG:NE	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:63:SER:HB3	1:B:276:ARG:CZ	2.45	0.46
1:B:513:HIS:O	1:B:517:VAL:HG23	2.16	0.46
1:B:2582:PRO:HG3	1:B:2617:CYS:SG	2.56	0.46
1:B:3808:PHE:HB2	1:B:3829:VAL:HG11	1.98	0.46
1:B:4663:ARG:NH1	1:B:4663:ARG:HB2	2.31	0.46
1:B:4667:SER:OG	1:B:4672:MET:O	2.34	0.46
1:C:2841:ALA:HB2	1:C:2893:LEU:HD12	1.98	0.46
1:C:3001:LYS:NZ	1:C:3041:ASP:OD2	2.34	0.46
1:C:3301:VAL:HA	1:C:3304:GLN:OE1	2.16	0.46
1:C:3639:LYS:HG3	1:C:4683:ARG:HH22	1.81	0.46
1:C:3882:GLN:HB3	1:C:3947:PHE:CE2	2.51	0.46
1:C:4654:MET:HE3	1:C:4663:ARG:NE	2.30	0.46
1:D:895:MET:CE	1:D:978:PRO:HD2	2.46	0.46
1:D:2603:ALA:C	1:D:2606:PRO:HD2	2.35	0.46
1:D:2927:GLN:O	1:D:2931:ARG:HD3	2.16	0.46
1:D:3219:VAL:O	1:D:3223:GLU:OE1	2.33	0.46
1:D:4264:LEU:HA	1:D:4267:GLN:OE1	2.16	0.46
1:A:932:ASN:HA	1:A:935:MET:HG2	1.98	0.46
1:A:1956:ALA:O	1:A:1966:ARG:NH1	2.49	0.46
1:A:3808:PHE:HB2	1:A:3829:VAL:HG11	1.98	0.46
1:A:4264:LEU:HA	1:A:4267:GLN:OE1	2.16	0.46
1:B:131:CYS:SG	1:B:150:GLN:HB2	2.56	0.46
1:B:1229:ILE:O	1:B:1233:GLN:NE2	2.37	0.46
1:B:2701:PHE:CD1	1:B:2873:PRO:HG3	2.51	0.46
1:B:2759:PRO:HG2	1:B:2762:LEU:HD12	1.98	0.46
1:B:2798:MET:SD	1:C:1497:GLY:HA3	2.56	0.46
1:B:3019:ILE:H	1:B:3019:ILE:HD12	1.81	0.46
1:C:2418:ARG:HH21	1:D:156:GLU:CD	2.19	0.46
1:C:2465:LYS:O	1:C:2469:VAL:HG23	2.16	0.46
1:C:2918:GLU:HA	1:C:2923:TYR:CE1	2.51	0.46
1:C:3072:MET:HE1	1:C:3136:SER:O	2.15	0.46
1:C:3164:GLY:CA	1:C:3244:SER:C	2.84	0.46
1:C:3231:MET:HE3	1:C:3234:VAL:HG23	1.97	0.46
1:C:4055:HIS:C	1:C:4056:LYS:HG2	2.36	0.46
1:C:4194:GLU:HG2	1:C:4645:TRP:HZ3	1.80	0.46
1:C:4818:TYR:HA	1:D:4848:ILE:HD11	1.98	0.46
1:D:441:LYS:HD3	1:D:443:SER:H	1.79	0.46
1:D:769:ARG:HH21	1:D:816:PRO:HG3	1.80	0.46
1:D:1685:LEU:O	1:D:1689:ILE:HG12	2.16	0.46
1:D:1795:LEU:HD13	1:D:1842:ILE:HD11	1.97	0.46
1:D:2723:LYS:HD3	1:D:2899:ASN:OD1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:63:SER:HB3	1:A:276:ARG:CZ	2.45	0.46
1:A:131:CYS:SG	1:A:150:GLN:HB2	2.56	0.46
1:A:562:LEU:HG	1:A:600:LEU:HD13	1.97	0.46
1:A:1685:LEU:O	1:A:1689:ILE:HG12	2.16	0.46
1:A:2767:GLU:O	1:A:2770:ILE:HG12	2.16	0.46
1:A:3882:GLN:HB3	1:A:3947:PHE:CE2	2.51	0.46
1:A:4055:HIS:C	1:A:4056:LYS:HG2	2.36	0.46
1:A:4280:VAL:HG22	1:B:4487:TYR:HE2	1.81	0.46
1:A:4641:PRO:HB3	1:A:4644:TYR:HB3	1.97	0.46
1:B:1914:CYS:O	1:B:1918:VAL:HG23	2.15	0.46
1:B:2322:ARG:NH2	1:B:2415:GLU:OE2	2.47	0.46
1:B:3322:LEU:O	1:B:3326:LEU:CB	2.63	0.46
1:B:3639:LYS:HG3	1:B:4683:ARG:HH22	1.81	0.46
1:B:3830:LEU:HD13	1:B:3833:ASP:OD1	2.16	0.46
1:C:125:TYR:O	1:C:414:ARG:NH1	2.48	0.46
1:C:441:LYS:HD3	1:C:443:SER:H	1.80	0.46
1:C:2586:GLN:NE2	1:C:2636:GLU:OE1	2.48	0.46
1:C:2734:MET:HE2	1:C:2823:PRO:HB2	1.98	0.46
1:D:71:GLN:HB3	1:D:73:LEU:HD23	1.98	0.46
1:D:562:LEU:HG	1:D:600:LEU:HD13	1.97	0.46
1:D:2062:ILE:HG21	1:D:2087:LEU:HG	1.96	0.46
1:D:2171:VAL:O	1:D:2174:VAL:HG22	2.16	0.46
1:D:2841:ALA:HB2	1:D:2893:LEU:HD12	1.98	0.46
1:D:3165:ALA:H	1:D:3245:TYR:N	2.08	0.46
1:A:1564:MET:HE3	1:A:1565:PRO:HD2	1.96	0.45
1:A:2418:ARG:HH21	1:B:156:GLU:CD	2.18	0.45
1:A:2465:LYS:O	1:A:2469:VAL:HG23	2.16	0.45
1:A:3322:LEU:HB3	1:A:3323:MET:CE	2.46	0.45
1:A:3589:LYS:HB3	1:A:3589:LYS:HE2	1.39	0.45
1:B:2933:VAL:HB	1:B:3010:LYS:HE3	1.97	0.45
1:B:3664:LEU:O	1:B:3668:ILE:HG13	2.16	0.45
1:B:4079:ASP:O	1:B:4082:GLU:HG3	2.16	0.45
1:C:71:GLN:HB3	1:C:73:LEU:HD23	1.98	0.45
1:C:1685:LEU:O	1:C:1689:ILE:HG12	2.16	0.45
1:C:2171:VAL:O	1:C:2174:VAL:HG22	2.16	0.45
1:C:2832:THR:HG21	1:D:1550:PRO:HD3	1.98	0.45
1:D:864:PRO:HB2	1:D:1009:ARG:HG2	1.99	0.45
1:D:2582:PRO:HG3	1:D:2617:CYS:SG	2.56	0.45
1:D:3280:ILE:HA	1:D:3283:ILE:HG12	1.98	0.45
1:D:3322:LEU:HB3	1:D:3323:MET:CE	2.46	0.45
1:D:3639:LYS:HG3	1:D:4683:ARG:HH22	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4055:HIS:C	1:D:4056:LYS:HG2	2.36	0.45
1:A:1176:THR:HG22	1:A:1181:ILE:HG13	1.98	0.45
1:A:2409:ILE:HD12	1:A:2417:ILE:HD13	1.98	0.45
1:A:2763:LEU:O	1:A:2768:LYS:NZ	2.49	0.45
1:A:3019:ILE:H	1:A:3019:ILE:HD12	1.81	0.45
1:A:3161:ALA:O	1:A:3244:SER:O	2.33	0.45
1:A:4663:ARG:NH1	1:A:4663:ARG:HB2	2.31	0.45
1:B:562:LEU:HG	1:B:600:LEU:HD13	1.97	0.45
1:B:1685:LEU:O	1:B:1689:ILE:HG12	2.16	0.45
1:B:1956:ALA:O	1:B:1966:ARG:NH1	2.49	0.45
1:B:1966:ARG:HG2	1:B:3605:MET:HG3	1.99	0.45
1:B:2927:GLN:O	1:B:2931:ARG:HD3	2.16	0.45
1:B:3301:VAL:HA	1:B:3304:GLN:OE1	2.16	0.45
1:C:756:SER:OG	1:C:769:ARG:HB3	2.16	0.45
1:C:2582:PRO:HG3	1:C:2617:CYS:SG	2.56	0.45
1:C:3280:ILE:HA	1:C:3283:ILE:HG12	1.98	0.45
1:D:3167:PRO:HA	1:D:3248:ARG:NE	2.32	0.45
1:D:3808:PHE:HB2	1:D:3829:VAL:HG11	1.98	0.45
1:D:3882:GLN:HB3	1:D:3947:PHE:CE2	2.51	0.45
1:D:4079:ASP:O	1:D:4082:GLU:HG3	2.16	0.45
3:L:95:LYS:HE3	3:L:105:GLU:HB2	1.99	0.45
1:A:2918:GLU:HA	1:A:2923:TYR:CE1	2.51	0.45
1:A:3164:GLY:CA	1:A:3244:SER:CA	2.95	0.45
1:A:3167:PRO:HA	1:A:3248:ARG:NE	2.32	0.45
1:A:3322:LEU:O	1:A:3326:LEU:CB	2.63	0.45
1:B:494:MET:HA	1:B:494:MET:CE	2.47	0.45
1:B:842:GLN:HG2	1:B:1605:LYS:HE3	1.98	0.45
1:B:895:MET:CE	1:B:978:PRO:HD2	2.46	0.45
1:B:2723:LYS:HD3	1:B:2899:ASN:OD1	2.16	0.45
1:B:2767:GLU:O	1:B:2770:ILE:HG12	2.16	0.45
1:B:3882:GLN:HB3	1:B:3947:PHE:CE2	2.51	0.45
1:B:3975:GLN:O	1:B:3979:VAL:HG23	2.16	0.45
1:B:4022:LYS:HB2	1:B:4022:LYS:HE2	1.79	0.45
1:B:4521:LYS:HB2	1:B:4521:LYS:HE2	1.61	0.45
1:B:4800:ASP:N	1:B:4800:ASP:OD1	2.49	0.45
1:C:63:SER:HB3	1:C:276:ARG:CZ	2.45	0.45
1:C:769:ARG:HH21	1:C:816:PRO:HG3	1.80	0.45
1:C:895:MET:CE	1:C:978:PRO:HD2	2.46	0.45
1:C:1978:ASN:HB3	1:C:1983:LYS:HE2	1.98	0.45
1:C:2701:PHE:CD1	1:C:2873:PRO:HG3	2.51	0.45
1:C:2767:GLU:O	1:C:2770:ILE:HG12	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3008:PHE:HE1	1:C:3104:MET:HE1	1.82	0.45
1:C:4667:SER:OG	1:C:4672:MET:O	2.34	0.45
1:D:2123:LEU:HG	1:D:2127:ARG:HD2	1.97	0.45
1:D:3019:ILE:HD12	1:D:3019:ILE:H	1.81	0.45
1:A:23:GLN:OE1	1:A:34:LYS:HG3	2.17	0.45
1:A:75:VAL:HG12	1:A:79:GLN:NE2	2.20	0.45
1:A:674:TYR:OH	1:A:676:GLU:OE2	2.29	0.45
1:A:756:SER:OG	1:A:769:ARG:HB3	2.16	0.45
1:A:4079:ASP:O	1:A:4082:GLU:HG3	2.16	0.45
1:B:864:PRO:HB2	1:B:1009:ARG:HG2	1.99	0.45
1:B:951:GLY:O	1:B:1063:ASN:N	2.49	0.45
1:B:3002:GLU:HB3	1:B:3044:THR:HG21	1.97	0.45
1:B:3062:ASP:HB2	1:B:3132:ARG:HH22	1.81	0.45
1:B:3159:LEU:O	1:B:3241:MET:HA	2.16	0.45
1:B:3250:TRP:CD1	1:B:3273:MET:CE	2.99	0.45
1:B:3882:GLN:HG2	1:B:3943:ALA:HA	1.98	0.45
1:B:4156:SER:HB3	1:B:4923:MET:HE1	1.97	0.45
1:C:864:PRO:HB2	1:C:1009:ARG:HG2	1.99	0.45
1:C:1956:ALA:O	1:C:1966:ARG:NH1	2.49	0.45
1:C:3163:ALA:HB3	1:C:3241:MET:CG	2.46	0.45
1:C:3250:TRP:CD1	1:C:3273:MET:CE	2.99	0.45
1:C:3808:PHE:HB2	1:C:3829:VAL:HG11	1.97	0.45
1:C:4155:SER:O	1:C:4159:GLN:HG2	2.16	0.45
1:D:63:SER:HB3	1:D:276:ARG:CZ	2.45	0.45
1:D:494:MET:HA	1:D:494:MET:CE	2.47	0.45
1:D:1956:ALA:O	1:D:1966:ARG:NH1	2.49	0.45
1:D:2326:ARG:HA	1:D:2326:ARG:HD3	1.75	0.45
1:D:2465:LYS:O	1:D:2469:VAL:HG23	2.16	0.45
1:D:2767:GLU:O	1:D:2770:ILE:HG12	2.16	0.45
1:D:2918:GLU:HA	1:D:2923:TYR:CE1	2.51	0.45
1:D:3830:LEU:HD13	1:D:3833:ASP:OD1	2.16	0.45
1:D:3975:GLN:O	1:D:3979:VAL:HG23	2.16	0.45
1:D:4622:SER:OG	1:D:4624:ASP:OD1	2.25	0.45
1:A:1129:GLY:O	1:A:1147:GLN:N	2.50	0.45
1:A:3002:GLU:HB3	1:A:3044:THR:HG21	1.97	0.45
1:A:3301:VAL:HA	1:A:3304:GLN:OE1	2.16	0.45
1:A:3664:LEU:O	1:A:3668:ILE:HG13	2.16	0.45
1:A:4155:SER:O	1:A:4159:GLN:HG2	2.16	0.45
1:B:1176:THR:HG22	1:B:1181:ILE:HG13	1.98	0.45
1:B:2763:LEU:O	1:B:2768:LYS:NZ	2.49	0.45
1:B:2771:TYR:O	1:B:2775:ILE:HG13	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:951:GLY:O	1:C:1063:ASN:N	2.49	0.45
1:C:1966:ARG:HG2	1:C:3605:MET:HG3	1.99	0.45
1:C:2759:PRO:HG2	1:C:2762:LEU:HD12	1.98	0.45
1:C:2771:TYR:O	1:C:2775:ILE:HG13	2.17	0.45
1:C:2957:GLU:HA	1:C:2960:ILE:HG12	1.98	0.45
1:D:880:ARG:NH1	1:D:881:ILE:HB	2.31	0.45
1:D:964:MET:SD	1:D:964:MET:N	2.81	0.45
1:D:1063:ASN:HD22	1:D:1063:ASN:C	2.20	0.45
1:D:1253:LYS:HB2	1:D:1253:LYS:HE2	1.76	0.45
1:D:2734:MET:HE3	1:D:2825:ALA:HB2	1.98	0.45
1:D:3159:LEU:O	1:D:3241:MET:HA	2.16	0.45
3:L:138:ASN:OD1	3:L:141:GLU:N	2.39	0.45
1:A:218:SER:HB3	1:A:286:GLY:HA3	1.99	0.45
1:A:514:PHE:CD2	1:A:526:TRP:HB2	2.51	0.45
1:A:864:PRO:HB2	1:A:1009:ARG:HG2	1.99	0.45
1:A:2723:LYS:HD3	1:A:2899:ASN:OD1	2.16	0.45
1:A:3183:ILE:HG13	1:A:3187:LYS:HZ2	1.80	0.45
1:A:3231:MET:HE3	1:A:3234:VAL:HG23	1.99	0.45
1:A:3250:TRP:CD1	1:A:3273:MET:CE	2.99	0.45
1:A:3639:LYS:HG3	1:A:4683:ARG:HH22	1.81	0.45
1:B:920:GLU:O	1:B:924:LEU:N	2.50	0.45
1:B:932:ASN:HA	1:B:935:MET:HG2	1.98	0.45
1:B:1944:TYR:HE1	1:B:3605:MET:HE1	1.81	0.45
1:B:2171:VAL:O	1:B:2174:VAL:HG22	2.16	0.45
1:B:3164:GLY:CA	1:B:3244:SER:CA	2.95	0.45
1:B:3298:ARG:HH22	3:J:133:GLY:C	2.20	0.45
1:C:2763:LEU:O	1:C:2768:LYS:NZ	2.49	0.45
1:C:3122:ILE:HD11	1:C:3167:PRO:HB2	1.98	0.45
1:C:4079:ASP:O	1:C:4082:GLU:HG3	2.16	0.45
1:D:3163:ALA:HB3	1:D:3241:MET:CG	2.46	0.45
1:D:3301:VAL:HA	1:D:3304:GLN:OE1	2.16	0.45
3:J:69:PHE:O	3:J:73:MET:HG2	2.16	0.45
3:K:95:LYS:HE3	3:K:105:GLU:HB2	1.99	0.45
1:A:387:ILE:HG12	1:A:389:ARG:HB3	1.99	0.45
1:A:1922:ILE:O	1:A:1926:VAL:HG23	2.16	0.45
1:A:2771:TYR:O	1:A:2775:ILE:HG13	2.17	0.45
1:A:4194:GLU:HG2	1:A:4645:TRP:HZ3	1.80	0.45
3:I:95:LYS:HE3	3:I:105:GLU:HB2	1.99	0.45
1:B:1129:GLY:O	1:B:1147:GLN:N	2.50	0.45
1:B:1922:ILE:O	1:B:1926:VAL:HG23	2.16	0.45
1:B:2171:VAL:HG21	1:B:2199:PHE:CE2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2918:GLU:HA	1:B:2923:TYR:CE1	2.51	0.45
1:B:4194:GLU:HG2	1:B:4645:TRP:HZ3	1.80	0.45
1:C:494:MET:HA	1:C:494:MET:CE	2.47	0.45
1:C:1063:ASN:HD22	1:C:1063:ASN:C	2.20	0.45
1:C:3882:GLN:HG2	1:C:3943:ALA:HA	1.98	0.45
1:C:4084:VAL:O	1:C:4088:HIS:HB3	2.16	0.45
1:D:551:PHE:HE2	1:D:558:LEU:HD22	1.82	0.45
1:D:932:ASN:HA	1:D:935:MET:HG2	1.98	0.45
1:D:2171:VAL:HG21	1:D:2199:PHE:CE2	2.52	0.45
1:D:2586:GLN:NE2	1:D:2636:GLU:OE1	2.48	0.45
1:D:2771:TYR:O	1:D:2775:ILE:HG13	2.17	0.45
1:D:2957:GLU:HA	1:D:2960:ILE:HG12	1.98	0.45
1:A:1063:ASN:HD22	1:A:1063:ASN:C	2.20	0.45
1:A:2171:VAL:HG21	1:A:2199:PHE:CE2	2.52	0.45
1:A:2605:MET:HB3	1:A:2606:PRO:HD3	1.99	0.45
1:A:3072:MET:HE1	1:A:3136:SER:O	2.17	0.45
1:B:3163:ALA:HB3	1:B:3241:MET:CG	2.46	0.45
1:B:3278:GLY:HA2	1:B:3281:LEU:HD23	1.99	0.45
1:B:4061:SER:O	1:B:4064:GLU:HG3	2.17	0.45
1:C:218:SER:HB3	1:C:286:GLY:HA3	1.99	0.45
1:C:842:GLN:HG2	1:C:1605:LYS:HE3	1.98	0.45
1:C:946:LEU:HD11	1:C:999:LEU:HG	1.99	0.45
1:C:3019:ILE:H	1:C:3019:ILE:HD12	1.81	0.45
1:C:3172:GLU:HB2	1:C:3211:LEU:HD12	1.99	0.45
1:C:3217:GLU:O	1:C:3220:GLU:HG3	2.17	0.45
1:C:3589:LYS:HE2	1:C:3589:LYS:HB3	1.39	0.45
1:C:3975:GLN:O	1:C:3979:VAL:HG23	2.16	0.45
1:C:4663:ARG:HB2	1:C:4663:ARG:NH1	2.31	0.45
1:D:625:VAL:HG13	1:D:2133:ARG:NH2	2.32	0.45
1:D:1129:GLY:O	1:D:1147:GLN:N	2.50	0.45
1:D:1922:ILE:O	1:D:1926:VAL:HG23	2.16	0.45
1:D:3164:GLY:CA	1:D:3244:SER:CA	2.95	0.45
1:D:4084:VAL:O	1:D:4088:HIS:HB3	2.16	0.45
3:J:138:ASN:OD1	3:J:141:GLU:N	2.39	0.45
1:A:71:GLN:HB3	1:A:73:LEU:HD23	1.98	0.45
1:A:494:MET:HA	1:A:494:MET:CE	2.47	0.45
1:A:3163:ALA:HB3	1:A:3241:MET:CG	2.46	0.45
1:A:4728:MET:HA	1:A:4728:MET:CE	2.47	0.45
1:B:23:GLN:OE1	1:B:34:LYS:HG3	2.17	0.45
1:B:1420:LEU:HD11	1:B:1559:ARG:NH2	2.32	0.45
1:B:2605:MET:HB3	1:B:2606:PRO:HD3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2788:ARG:HH11	1:B:2908:LYS:HZ2	1.63	0.45
1:B:2957:GLU:HA	1:B:2960:ILE:HG12	1.98	0.45
1:B:3070:LYS:O	1:B:3074:ASN:ND2	2.50	0.45
1:B:3122:ILE:HD11	1:B:3167:PRO:HB2	1.98	0.45
1:B:3172:GLU:OE2	1:B:3175:LEU:N	2.50	0.45
1:B:3217:GLU:O	1:B:3220:GLU:HG3	2.17	0.45
1:B:4084:VAL:O	1:B:4088:HIS:HB3	2.16	0.45
1:B:4728:MET:HA	1:B:4728:MET:CE	2.47	0.45
1:C:920:GLU:O	1:C:924:LEU:N	2.50	0.45
1:C:2133:ARG:HG2	1:C:2133:ARG:HH11	1.82	0.45
1:C:3164:GLY:O	1:C:3247:SER:OG	2.27	0.45
1:C:3664:LEU:O	1:C:3668:ILE:HG13	2.16	0.45
1:C:4264:LEU:HA	1:C:4267:GLN:OE1	2.16	0.45
1:C:4519:PHE:O	1:C:4561:LEU:HD12	2.17	0.45
1:D:23:GLN:OE1	1:D:34:LYS:HG3	2.17	0.45
1:D:2704:GLN:OE1	1:D:2704:GLN:N	2.46	0.45
1:D:3122:ILE:HD11	1:D:3167:PRO:HB2	1.98	0.45
1:D:3172:GLU:HB2	1:D:3211:LEU:HD12	1.99	0.45
3:J:95:LYS:HE3	3:J:105:GLU:HB2	1.99	0.45
1:A:513:HIS:O	1:A:517:VAL:HG23	2.16	0.45
1:A:611:LEU:HD22	1:A:1660:LEU:HD22	1.99	0.45
1:A:920:GLU:O	1:A:924:LEU:N	2.50	0.45
3:I:57:ASP:OD2	3:I:62:GLY:N	2.40	0.45
1:B:2252:GLU:OE1	1:B:2252:GLU:N	2.39	0.45
1:B:2830:ASN:HD21	1:C:1551:ASN:HB2	1.82	0.45
1:B:3172:GLU:HB2	1:B:3211:LEU:HD12	1.99	0.45
1:C:611:LEU:HD22	1:C:1660:LEU:HD22	1.99	0.45
1:C:1420:LEU:HD11	1:C:1559:ARG:NH2	2.32	0.45
1:C:2171:VAL:HG21	1:C:2199:PHE:CE2	2.52	0.45
1:C:3164:GLY:CA	1:C:3244:SER:CA	2.95	0.45
1:C:3173:THR:HG21	1:C:3201:VAL:HG11	1.99	0.45
1:C:3830:LEU:HD13	1:C:3833:ASP:OD1	2.16	0.45
1:C:4728:MET:HA	1:C:4728:MET:CE	2.47	0.45
1:D:842:GLN:HG2	1:D:1605:LYS:HE3	1.98	0.45
1:D:2763:LEU:O	1:D:2768:LYS:NZ	2.49	0.45
1:D:4155:SER:O	1:D:4159:GLN:HG2	2.16	0.45
1:A:829:LYS:HE3	1:A:1037:LEU:HD22	1.99	0.44
1:A:2172:MET:O	1:A:2176:VAL:N	2.43	0.44
1:A:3008:PHE:HE1	1:A:3104:MET:HE1	1.82	0.44
1:A:3062:ASP:O	1:A:3066:GLU:OE1	2.35	0.44
1:A:3298:ARG:NH2	3:I:133:GLY:C	2.69	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3697:LYS:HA	1:A:3700:HIS:NE2	2.32	0.44
1:B:3015:VAL:HG13	1:B:3096:TYR:OH	2.17	0.44
1:B:4264:LEU:HA	1:B:4267:GLN:OE1	2.16	0.44
1:C:23:GLN:OE1	1:C:34:LYS:HG3	2.17	0.44
1:C:513:HIS:O	1:C:517:VAL:HG23	2.16	0.44
1:C:895:MET:HE3	1:C:978:PRO:HD2	1.99	0.44
1:C:2605:MET:HB3	1:C:2606:PRO:HD3	1.99	0.44
1:C:3298:ARG:HH22	3:K:133:GLY:C	2.14	0.44
1:D:387:ILE:HG12	1:D:389:ARG:HB3	1.99	0.44
1:D:3182:SER:OG	1:D:3185:ASN:ND2	2.40	0.44
1:D:3183:ILE:HG13	1:D:3187:LYS:HZ2	1.82	0.44
1:D:3184:TYR:CE1	1:D:3192:ARG:NH2	2.85	0.44
1:A:551:PHE:HE2	1:A:558:LEU:HD22	1.82	0.44
1:A:769:ARG:HH21	1:A:816:PRO:HG3	1.80	0.44
1:A:3015:VAL:HG13	1:A:3096:TYR:OH	2.17	0.44
1:A:3172:GLU:HB2	1:A:3211:LEU:HD12	1.99	0.44
1:A:3184:TYR:CE1	1:A:3192:ARG:NH2	2.85	0.44
2:H:75:LEU:O	2:H:100:PHE:N	2.36	0.44
3:I:22:LYS:HD3	3:I:22:LYS:N	2.32	0.44
1:B:71:GLN:HB3	1:B:73:LEU:HD23	1.98	0.44
1:B:551:PHE:HE2	1:B:558:LEU:HD22	1.82	0.44
1:B:756:SER:OG	1:B:769:ARG:HB3	2.16	0.44
1:B:946:LEU:HD11	1:B:999:LEU:HG	1.99	0.44
1:B:3173:THR:HG21	1:B:3201:VAL:HG11	1.99	0.44
1:B:4519:PHE:O	1:B:4561:LEU:HD12	2.17	0.44
1:C:625:VAL:HG13	1:C:2133:ARG:NH2	2.32	0.44
1:C:1436:GLN:H	1:C:1500:ARG:HH22	1.65	0.44
1:C:2723:LYS:HD3	1:C:2899:ASN:OD1	2.16	0.44
1:C:4818:TYR:HE1	1:D:4847:ASP:HB2	1.83	0.44
1:D:2409:ILE:HD12	1:D:2417:ILE:HD13	1.98	0.44
1:D:3002:GLU:HB3	1:D:3044:THR:HG21	1.97	0.44
1:D:3297:LYS:O	1:D:3301:VAL:HG23	2.18	0.44
1:A:895:MET:CE	1:A:978:PRO:HD2	2.46	0.44
1:A:3278:GLY:HA2	1:A:3281:LEU:HD23	1.99	0.44
1:B:874:LEU:HD12	1:B:875:PRO:CD	2.48	0.44
1:B:1063:ASN:HD22	1:B:1063:ASN:C	2.20	0.44
1:B:1436:GLN:H	1:B:1500:ARG:HH22	1.66	0.44
1:B:2645:PHE:HB2	1:B:2672:VAL:HG11	1.99	0.44
1:B:3072:MET:HE1	1:B:3136:SER:O	2.16	0.44
1:B:3138:TYR:CD2	1:B:3208:ILE:HG13	2.53	0.44
1:C:551:PHE:HE2	1:C:558:LEU:HD22	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:932:ASN:HA	1:C:935:MET:HG2	1.98	0.44
1:C:2136:LYS:O	1:C:2140:LYS:HG2	2.18	0.44
1:C:2409:ILE:HD12	1:C:2417:ILE:HD13	1.98	0.44
1:C:3167:PRO:HA	1:C:3248:ARG:NE	2.32	0.44
1:C:3172:GLU:OE2	1:C:3175:LEU:N	2.50	0.44
1:C:4797:GLU:H	1:C:4797:GLU:CD	2.20	0.44
1:D:322:ALA:HB1	1:D:327:THR:HG21	1.99	0.44
1:D:2605:MET:HB3	1:D:2606:PRO:HD3	1.99	0.44
1:D:2645:PHE:HB2	1:D:2672:VAL:HG11	1.99	0.44
1:D:3062:ASP:O	1:D:3066:GLU:OE1	2.35	0.44
1:D:3070:LYS:O	1:D:3074:ASN:ND2	2.50	0.44
1:D:4728:MET:HA	1:D:4728:MET:CE	2.47	0.44
1:A:1420:LEU:HD11	1:A:1559:ARG:NH2	2.32	0.44
1:A:2136:LYS:O	1:A:2140:LYS:HG2	2.18	0.44
1:A:2171:VAL:O	1:A:2174:VAL:HG22	2.16	0.44
1:A:2759:PRO:HG2	1:A:2762:LEU:HD12	1.98	0.44
1:A:3122:ILE:HD11	1:A:3167:PRO:HB2	1.98	0.44
1:A:4084:VAL:O	1:A:4088:HIS:HB3	2.16	0.44
2:G:78:THR:OG1	2:G:80:ASP:OD1	2.29	0.44
1:B:611:LEU:HD22	1:B:1660:LEU:HD22	1.99	0.44
1:B:2333:PRO:HA	1:B:2336:ARG:HG2	2.00	0.44
1:B:2785:TRP:HH2	1:B:2847:ASN:HB2	1.83	0.44
1:B:3231:MET:HE3	1:B:3234:VAL:HG23	1.98	0.44
1:C:514:PHE:CD2	1:C:526:TRP:HB2	2.51	0.44
1:C:829:LYS:HE3	1:C:1037:LEU:HD22	1.99	0.44
1:C:1922:ILE:O	1:C:1926:VAL:HG23	2.16	0.44
1:D:1102:TYR:HD1	1:D:1165:MET:HG2	1.83	0.44
1:D:3231:MET:HE3	1:D:3234:VAL:HG23	1.98	0.44
1:A:1966:ARG:HG2	1:A:3605:MET:HG3	1.99	0.44
1:A:2133:ARG:HG2	1:A:2133:ARG:HH11	1.82	0.44
1:A:4156:SER:HB3	1:A:4923:MET:HE1	1.99	0.44
1:A:4766:GLN:HA	1:D:4756:ILE:HD11	1.99	0.44
2:G:24:VAL:HG22	2:G:48:LYS:HG2	2.00	0.44
1:B:625:VAL:HG13	1:B:2133:ARG:NH2	2.32	0.44
1:B:3167:PRO:HA	1:B:3248:ARG:NE	2.32	0.44
1:C:1097:LYS:NZ	1:C:1198:GLY:O	2.51	0.44
1:C:2333:PRO:HA	1:C:2336:ARG:HG2	2.00	0.44
1:C:2788:ARG:HH11	1:C:2908:LYS:HZ2	1.64	0.44
1:C:3112:ILE:HG13	1:C:3117:PHE:HB2	2.00	0.44
1:D:611:LEU:HD22	1:D:1660:LEU:HD22	2.00	0.44
1:D:3664:LEU:O	1:D:3668:ILE:HG13	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:126:ILE:HA	3:K:129:ALA:HB3	2.00	0.44
1:A:2645:PHE:HB2	1:A:2672:VAL:HG11	1.99	0.44
1:A:2785:TRP:HH2	1:A:2847:ASN:HB2	1.83	0.44
1:A:2957:GLU:HA	1:A:2960:ILE:HG12	1.98	0.44
1:A:4800:ASP:N	1:A:4800:ASP:OD1	2.49	0.44
1:B:1097:LYS:NZ	1:B:1198:GLY:O	2.51	0.44
1:B:2136:LYS:O	1:B:2140:LYS:HG2	2.18	0.44
1:B:2409:ILE:HD12	1:B:2417:ILE:HD13	1.98	0.44
1:B:3297:LYS:O	1:B:3301:VAL:HG23	2.18	0.44
1:B:3697:LYS:HA	1:B:3700:HIS:NE2	2.32	0.44
1:B:4797:GLU:H	1:B:4797:GLU:CD	2.20	0.44
1:C:874:LEU:HD12	1:C:875:PRO:CD	2.48	0.44
1:C:1102:TYR:HD1	1:C:1165:MET:HG2	1.83	0.44
1:C:1176:THR:HG22	1:C:1181:ILE:HG13	1.98	0.44
1:C:2832:THR:HG21	1:D:1290:PHE:HE2	1.83	0.44
1:D:1760:ARG:NE	1:D:1762:GLN:HE22	2.14	0.44
3:L:22:LYS:HD3	3:L:22:LYS:N	2.32	0.44
1:A:876:PRO:HA	1:A:879:GLU:CG	2.48	0.44
1:A:951:GLY:O	1:A:1063:ASN:N	2.49	0.44
1:A:2732:TRP:O	1:A:2736:LYS:HD2	2.18	0.44
2:H:78:THR:OG1	2:H:80:ASP:OD1	2.29	0.44
1:B:1185:ASP:OD1	1:B:1185:ASP:N	2.51	0.44
1:B:3062:ASP:O	1:B:3066:GLU:OE1	2.35	0.44
1:C:322:ALA:HB1	1:C:327:THR:HG21	1.99	0.44
1:C:1760:ARG:NE	1:C:1762:GLN:HE22	2.14	0.44
1:C:2645:PHE:HB2	1:C:2672:VAL:HG11	1.99	0.44
1:C:3070:LYS:O	1:C:3074:ASN:ND2	2.50	0.44
1:C:3184:TYR:CE1	1:C:3192:ARG:NH2	2.85	0.44
1:D:2214:MET:HA	1:D:2214:MET:HE2	1.98	0.44
1:A:625:VAL:HG13	1:A:2133:ARG:NH2	2.32	0.44
1:A:1097:LYS:NZ	1:A:1198:GLY:O	2.51	0.44
1:A:1177:LEU:O	1:A:1180:GLU:HG3	2.18	0.44
1:A:3138:TYR:CD2	1:A:3208:ILE:HG13	2.53	0.44
1:A:3280:ILE:HA	1:A:3283:ILE:HG12	1.98	0.44
1:A:4056:LYS:HE3	1:B:4660:PHE:CA	2.47	0.44
1:A:4797:GLU:H	1:A:4797:GLU:CD	2.20	0.44
1:B:70:GLU:OE2	1:B:122:ARG:HD3	2.18	0.44
1:C:1185:ASP:OD1	1:C:1185:ASP:N	2.51	0.44
1:C:4061:SER:O	1:C:4064:GLU:HG3	2.17	0.44
1:D:218:SER:HB3	1:D:286:GLY:HA3	1.99	0.44
1:D:1097:LYS:NZ	1:D:1198:GLY:O	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1177:LEU:O	1:D:1180:GLU:HG3	2.18	0.44
1:D:1420:LEU:HD11	1:D:1559:ARG:NH2	2.32	0.44
1:D:4519:PHE:O	1:D:4561:LEU:HD12	2.17	0.44
1:D:4797:GLU:CD	1:D:4797:GLU:H	2.20	0.44
1:A:322:ALA:HB1	1:A:327:THR:HG21	1.99	0.44
1:A:3297:LYS:O	1:A:3301:VAL:HG23	2.18	0.44
1:A:4061:SER:O	1:A:4064:GLU:HG3	2.17	0.44
3:I:4:GLN:HG2	3:I:5:LEU:N	2.33	0.44
1:B:2691:LYS:O	1:B:2694:SER:OG	2.35	0.44
1:B:3016:ARG:HH12	1:B:3063:ASN:HB3	1.83	0.44
1:B:3280:ILE:HA	1:B:3283:ILE:HG12	1.98	0.44
1:B:3299:LEU:H	1:B:3299:LEU:HG	1.63	0.44
1:C:4000:VAL:O	1:C:4004:VAL:HG23	2.18	0.44
1:D:1966:ARG:HG2	1:D:3605:MET:HG3	1.99	0.44
1:D:3001:LYS:O	1:D:3005:THR:HG23	2.18	0.44
1:D:3093:ILE:HD12	1:D:3093:ILE:HA	1.89	0.44
1:D:3164:GLY:O	1:D:3247:SER:CA	2.66	0.44
1:D:3278:GLY:HA2	1:D:3281:LEU:HD23	1.99	0.44
3:K:22:LYS:HD3	3:K:22:LYS:N	2.32	0.44
1:A:2418:ARG:HD3	1:B:189:GLU:OE1	2.18	0.43
1:A:3016:ARG:HH12	1:A:3063:ASN:HB3	1.83	0.43
1:B:218:SER:HB3	1:B:286:GLY:HA3	1.99	0.43
1:B:829:LYS:HE3	1:B:1037:LEU:HD22	1.99	0.43
1:B:2734:MET:HE3	1:B:2825:ALA:HB2	1.98	0.43
1:B:2785:TRP:CH2	1:B:2847:ASN:HB2	2.53	0.43
1:B:3589:LYS:HE2	1:B:3589:LYS:HB3	1.39	0.43
1:C:733:TRP:CE2	1:C:738:ALA:HB2	2.53	0.43
1:C:3001:LYS:O	1:C:3005:THR:HG23	2.18	0.43
1:C:3026:ALA:O	1:C:3030:VAL:HG23	2.18	0.43
1:C:3165:ALA:H	1:C:3245:TYR:N	2.08	0.43
1:C:3297:LYS:O	1:C:3301:VAL:HG23	2.18	0.43
1:C:3879:LEU:O	1:C:3882:GLN:HG3	2.18	0.43
1:C:4800:ASP:OD1	1:C:4800:ASP:N	2.49	0.43
1:D:181:LEU:N	1:D:212:TRP:O	2.35	0.43
1:D:2333:PRO:HA	1:D:2336:ARG:HG2	2.00	0.43
1:D:3217:GLU:O	1:D:3220:GLU:HG3	2.17	0.43
1:D:3697:LYS:HA	1:D:3700:HIS:NE2	2.32	0.43
1:D:4800:ASP:N	1:D:4800:ASP:OD1	2.49	0.43
3:L:126:ILE:HA	3:L:129:ALA:HB3	2.00	0.43
1:A:1681:ASP:OD1	1:A:1684:GLN:NE2	2.51	0.43
1:A:2734:MET:HE3	1:A:2825:ALA:HB2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3070:LYS:O	1:A:3074:ASN:ND2	2.50	0.43
1:A:3217:GLU:O	1:A:3220:GLU:HG3	2.17	0.43
1:A:3900:GLU:OE1	1:A:3904:ARG:NH2	2.45	0.43
3:I:145:MET:HE2	3:I:145:MET:HB2	1.90	0.43
1:B:733:TRP:CE2	1:B:738:ALA:HB2	2.53	0.43
1:B:2133:ARG:HG2	1:B:2133:ARG:HH11	1.82	0.43
1:B:2488:LEU:HD21	1:B:2548:LEU:HD22	2.00	0.43
1:B:3045:VAL:HG22	1:B:3054:LYS:HE2	2.00	0.43
1:B:3164:GLY:N	1:B:3242:LEU:O	2.51	0.43
1:C:70:GLU:OE2	1:C:122:ARG:HD3	2.18	0.43
1:C:312:LYS:HE2	1:C:393:MET:O	2.19	0.43
1:C:394:HIS:CE1	1:C:396:GLU:HB2	2.54	0.43
1:C:1226:TYR:HD1	1:C:1229:ILE:HD11	1.83	0.43
1:C:1681:ASP:OD1	1:C:1684:GLN:NE2	2.51	0.43
1:C:1825:PHE:CE1	1:C:1842:ILE:HG12	2.54	0.43
1:C:2732:TRP:O	1:C:2736:LYS:HD2	2.18	0.43
1:C:2785:TRP:HH2	1:C:2847:ASN:HB2	1.83	0.43
1:C:3045:VAL:HG22	1:C:3054:LYS:HE2	2.00	0.43
1:C:3138:TYR:CD2	1:C:3208:ILE:HG13	2.53	0.43
1:C:3164:GLY:N	1:C:3242:LEU:O	2.51	0.43
1:D:70:GLU:OE2	1:D:122:ARG:HD3	2.18	0.43
1:D:829:LYS:HE3	1:D:1037:LEU:HD22	1.99	0.43
1:D:1089:ARG:HB3	1:D:1204:VAL:HG23	2.00	0.43
1:D:1226:TYR:HD1	1:D:1229:ILE:HD11	1.83	0.43
1:D:1681:ASP:OD1	1:D:1684:GLN:NE2	2.51	0.43
1:D:2136:LYS:O	1:D:2140:LYS:HG2	2.18	0.43
1:D:2759:PRO:HG2	1:D:2762:LEU:HD12	1.98	0.43
1:D:3015:VAL:HG13	1:D:3096:TYR:OH	2.17	0.43
1:D:3164:GLY:N	1:D:3242:LEU:O	2.51	0.43
1:D:3173:THR:HG21	1:D:3201:VAL:HG11	1.99	0.43
3:J:126:ILE:HA	3:J:129:ALA:HB3	2.00	0.43
1:A:3045:VAL:HA	1:A:3054:LYS:HE2	2.00	0.43
2:E:24:VAL:HG22	2:E:48:LYS:HG2	2.00	0.43
1:B:322:ALA:HB1	1:B:327:THR:HG21	1.99	0.43
1:B:1681:ASP:OD1	1:B:1684:GLN:NE2	2.51	0.43
1:B:3112:ILE:HG13	1:B:3117:PHE:HB2	2.00	0.43
1:B:3879:LEU:O	1:B:3882:GLN:HG3	2.18	0.43
1:C:1129:GLY:O	1:C:1147:GLN:N	2.50	0.43
1:C:2844:MET:HE2	1:C:2845:ALA:N	2.33	0.43
1:C:3015:VAL:HG13	1:C:3096:TYR:OH	2.17	0.43
1:D:876:PRO:HA	1:D:879:GLU:CG	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1444:GLY:HA3	1:D:1487:MET:HA	2.01	0.43
1:D:1900:GLU:HG2	1:D:2080:LEU:HD23	2.00	0.43
1:D:2785:TRP:HH2	1:D:2847:ASN:HB2	1.83	0.43
1:D:3138:TYR:CD2	1:D:3208:ILE:HG13	2.53	0.43
1:D:4000:VAL:O	1:D:4004:VAL:HG23	2.18	0.43
1:D:4107:GLU:OE1	1:D:4149:TYR:OH	2.20	0.43
1:D:4667:SER:OG	1:D:4672:MET:O	2.34	0.43
1:A:1102:TYR:HD1	1:A:1165:MET:HG2	1.83	0.43
1:A:1226:TYR:HD1	1:A:1229:ILE:HD11	1.83	0.43
1:A:1825:PHE:CE1	1:A:1842:ILE:HG12	2.53	0.43
1:A:2215:PHE:CG	1:A:2253:LEU:HD22	2.54	0.43
1:A:3583:LYS:HB3	3:I:125:MET:HB2	1.99	0.43
1:A:3982:LEU:HB3	1:A:3999:MET:HE1	1.99	0.43
1:B:1444:GLY:HA3	1:B:1487:MET:HA	2.01	0.43
1:B:1825:PHE:CE1	1:B:1842:ILE:HG12	2.53	0.43
1:B:1890:LYS:HA	1:B:1890:LYS:HD2	1.82	0.43
1:B:2418:ARG:HD3	1:C:189:GLU:OE2	2.17	0.43
1:B:2732:TRP:O	1:B:2736:LYS:HD2	2.18	0.43
1:B:3234:VAL:O	1:B:3238:ILE:HB	2.19	0.43
1:B:3805:LEU:HD11	1:B:3887:ASP:HB3	2.00	0.43
1:B:3845:LEU:HA	1:B:3848:GLU:HG2	2.00	0.43
1:C:897:LYS:HB2	1:C:902:TRP:HB2	2.01	0.43
1:C:1177:LEU:O	1:C:1180:GLU:HG3	2.18	0.43
1:C:2798:MET:CB	1:D:1498:GLN:HE22	2.32	0.43
1:C:3164:GLY:O	1:C:3247:SER:CA	2.66	0.43
1:C:3197:LEU:HA	1:C:3198:PRO:HD3	1.77	0.43
1:C:3278:GLY:HA2	1:C:3281:LEU:HD23	1.99	0.43
1:C:3697:LYS:HA	1:C:3700:HIS:NE2	2.32	0.43
1:D:1944:TYR:CE1	1:D:3605:MET:HE1	2.53	0.43
1:D:2488:LEU:HD21	1:D:2548:LEU:HD22	2.00	0.43
1:D:3172:GLU:OE2	1:D:3175:LEU:N	2.50	0.43
1:D:3845:LEU:HA	1:D:3848:GLU:HG2	2.00	0.43
1:A:1436:GLN:H	1:A:1500:ARG:HH22	1.66	0.43
1:A:2333:PRO:HA	1:A:2336:ARG:HG2	2.00	0.43
1:A:2999:LYS:O	1:A:3003:MET:HG2	2.19	0.43
1:A:3164:GLY:N	1:A:3242:LEU:O	2.51	0.43
1:A:3164:GLY:O	1:A:3247:SER:CA	2.66	0.43
1:A:3173:THR:HG21	1:A:3201:VAL:HG11	1.99	0.43
1:A:4519:PHE:O	1:A:4561:LEU:HD12	2.17	0.43
1:B:2999:LYS:O	1:B:3003:MET:HG2	2.19	0.43
1:B:3184:TYR:CE1	1:B:3192:ARG:NH2	2.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4618:THR:HG23	1:B:4619:GLU:OE1	2.19	0.43
1:C:1444:GLY:HA3	1:C:1487:MET:HA	2.01	0.43
1:C:2268:TYR:HB3	1:C:2298:TYR:CZ	2.54	0.43
1:C:3845:LEU:HA	1:C:3848:GLU:HG2	2.00	0.43
1:D:602:ASP:HA	1:D:642:LEU:HD21	2.00	0.43
1:D:733:TRP:CE2	1:D:738:ALA:HB2	2.53	0.43
1:D:1185:ASP:OD1	1:D:1185:ASP:N	2.51	0.43
1:D:2268:TYR:HB3	1:D:2298:TYR:CZ	2.54	0.43
1:D:2691:LYS:O	1:D:2694:SER:OG	2.35	0.43
1:A:70:GLU:OE2	1:A:122:ARG:HD3	2.18	0.43
1:A:733:TRP:CE2	1:A:738:ALA:HB2	2.53	0.43
1:A:1185:ASP:OD1	1:A:1185:ASP:N	2.51	0.43
1:A:2086:VAL:HG22	1:A:3687:LEU:HD13	2.00	0.43
1:B:312:LYS:HE2	1:B:393:MET:O	2.19	0.43
1:B:387:ILE:HG12	1:B:389:ARG:HB3	1.99	0.43
1:B:1102:TYR:HD1	1:B:1165:MET:HG2	1.83	0.43
1:B:2086:VAL:HG22	1:B:3687:LEU:HD13	2.00	0.43
1:B:2296:GLU:HG3	1:B:2390:THR:HG22	2.01	0.43
1:B:3026:ALA:O	1:B:3030:VAL:HG23	2.18	0.43
1:B:3288:LEU:HD12	1:B:3325:LYS:HB3	2.01	0.43
1:B:4635:ILE:HG22	1:B:4670:LEU:HA	2.01	0.43
1:C:3062:ASP:O	1:C:3066:GLU:OE1	2.35	0.43
1:D:946:LEU:HD11	1:D:999:LEU:HG	1.99	0.43
1:D:1494:MET:O	1:D:1494:MET:CG	2.67	0.43
1:D:2133:ARG:HG2	1:D:2133:ARG:HH11	1.82	0.43
1:D:4061:SER:O	1:D:4064:GLU:HG3	2.17	0.43
1:A:1282:CYS:SG	1:A:1556:GLU:HG2	2.59	0.43
1:A:2215:PHE:HB2	1:A:2253:LEU:HD13	2.01	0.43
1:A:3234:VAL:O	1:A:3238:ILE:HB	2.19	0.43
1:A:4257:ARG:HA	1:A:4260:SER:HB2	2.01	0.43
2:F:24:VAL:HG22	2:F:48:LYS:HG2	2.00	0.43
1:B:182:ILE:O	1:B:182:ILE:HG13	2.19	0.43
1:B:394:HIS:CE1	1:B:396:GLU:HB2	2.53	0.43
1:B:995:MET:CE	1:B:1066:ALA:HB2	2.49	0.43
1:B:1014:GLN:HB3	1:B:1027:ARG:HH21	1.84	0.43
1:B:2215:PHE:CG	1:B:2253:LEU:HD22	2.54	0.43
1:B:2940:ILE:HG21	1:B:3018:ARG:HG2	2.01	0.43
1:B:3025:ASP:O	1:B:3029:ILE:HG13	2.19	0.43
1:B:3112:ILE:CD1	1:B:3121:LEU:HD23	2.46	0.43
1:C:182:ILE:O	1:C:182:ILE:HG13	2.19	0.43
1:C:739:ARG:HD3	1:C:1480:ILE:HD13	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:982:ASP:OD1	1:C:982:ASP:N	2.52	0.43
1:C:1900:GLU:HG2	1:C:2080:LEU:HD23	2.00	0.43
1:C:2235:ARG:HA	1:C:2297:ARG:HH12	1.83	0.43
1:C:4257:ARG:HA	1:C:4260:SER:HB2	2.01	0.43
1:D:312:LYS:HE2	1:D:393:MET:O	2.19	0.43
1:D:874:LEU:HD12	1:D:875:PRO:CD	2.48	0.43
1:D:891:GLU:HB3	1:D:978:PRO:HG2	2.01	0.43
1:D:951:GLY:O	1:D:1063:ASN:N	2.49	0.43
1:D:982:ASP:OD1	1:D:982:ASP:N	2.52	0.43
1:D:995:MET:CE	1:D:1066:ALA:HB2	2.49	0.43
1:D:2086:VAL:HG22	1:D:3687:LEU:HD13	2.00	0.43
1:D:2403:ALA:HB2	1:D:2475:VAL:HG22	2.00	0.43
1:D:3112:ILE:HG13	1:D:3117:PHE:HB2	2.00	0.43
1:D:3587:TRP:HB3	3:L:146:MET:SD	2.58	0.43
1:A:1549:SER:HB2	1:D:2830:ASN:OD1	2.19	0.43
1:A:2235:ARG:HA	1:A:2297:ARG:HH12	1.83	0.43
1:A:2268:TYR:HB3	1:A:2298:TYR:CZ	2.54	0.43
1:A:3025:ASP:O	1:A:3029:ILE:HG13	2.19	0.43
1:A:3026:ALA:O	1:A:3030:VAL:HG23	2.18	0.43
1:A:3045:VAL:HG22	1:A:3054:LYS:HE2	2.00	0.43
2:E:75:LEU:O	2:E:100:PHE:N	2.36	0.43
2:H:24:VAL:HG22	2:H:48:LYS:HG2	2.00	0.43
1:B:876:PRO:HA	1:B:879:GLU:CG	2.48	0.43
1:B:897:LYS:HB2	1:B:902:TRP:HB2	2.01	0.43
1:B:1100:ARG:HH22	1:B:1236:TYR:N	2.17	0.43
1:B:1177:LEU:O	1:B:1180:GLU:HG3	2.18	0.43
1:B:2268:TYR:HB3	1:B:2298:TYR:CZ	2.54	0.43
1:B:2849:HIS:CE1	1:B:2877:LEU:HD11	2.54	0.43
1:B:3182:SER:OG	1:B:3185:ASN:ND2	2.40	0.43
1:B:3319:PHE:HD2	1:B:3323:MET:HE1	1.81	0.43
1:B:4641:PRO:O	1:B:4647:LYS:NZ	2.43	0.43
1:C:387:ILE:HG12	1:C:389:ARG:HB3	1.99	0.43
1:C:891:GLU:HB3	1:C:978:PRO:HG2	2.01	0.43
1:C:1766:PRO:HG3	1:C:1780:PRO:HB3	2.01	0.43
1:C:2086:VAL:HG22	1:C:3687:LEU:HD13	2.00	0.43
1:C:2940:ILE:HG21	1:C:3018:ARG:HG2	2.01	0.43
1:C:3025:ASP:O	1:C:3029:ILE:HG13	2.19	0.43
1:C:3288:LEU:HD12	1:C:3325:LYS:HB3	2.01	0.43
1:C:4635:ILE:HG22	1:C:4670:LEU:HA	2.01	0.43
1:C:4863:GLN:HG2	1:D:4860:ALA:HB2	2.01	0.43
1:D:1825:PHE:CE1	1:D:1842:ILE:HG12	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2732:TRP:O	1:D:2736:LYS:HD2	2.18	0.43
1:D:3250:TRP:CD1	1:D:3273:MET:CE	2.99	0.43
3:K:4:GLN:HG2	3:K:5:LEU:N	2.33	0.43
1:A:602:ASP:HA	1:A:642:LEU:HD21	2.00	0.43
1:A:946:LEU:HD11	1:A:999:LEU:HG	1.99	0.43
1:A:1100:ARG:HB3	1:A:1236:TYR:CD1	2.54	0.43
1:A:1100:ARG:HH22	1:A:1236:TYR:N	2.17	0.43
1:A:2785:TRP:CH2	1:A:2847:ASN:HB2	2.54	0.43
1:B:827:LEU:HD23	1:B:827:LEU:HA	1.91	0.43
1:B:891:GLU:HB3	1:B:978:PRO:HG2	2.01	0.43
1:C:1697:LEU:HD23	1:C:1697:LEU:HA	1.87	0.43
1:C:2215:PHE:HB2	1:C:2253:LEU:HD13	2.01	0.43
1:C:3965:ILE:O	1:C:3969:LYS:HD3	2.19	0.43
1:C:4186:MET:O	1:C:4190:VAL:HG23	2.19	0.43
1:D:1304:LEU:HD23	1:D:1304:LEU:HA	1.88	0.43
1:D:3288:LEU:HD12	1:D:3325:LYS:HB3	2.01	0.43
1:D:4635:ILE:HG22	1:D:4670:LEU:HA	2.01	0.43
1:A:629:GLN:OE1	1:A:1669:ASN:ND2	2.39	0.43
1:A:1089:ARG:HB3	1:A:1204:VAL:HG23	2.00	0.43
1:A:3001:LYS:O	1:A:3005:THR:HG23	2.18	0.43
1:A:3112:ILE:HG13	1:A:3117:PHE:HB2	2.00	0.43
1:A:3182:SER:OG	1:A:3185:ASN:ND2	2.40	0.43
1:A:4694:LEU:HA	1:A:4697:VAL:HG22	2.01	0.43
3:I:126:ILE:HA	3:I:129:ALA:HB3	2.00	0.43
1:B:2215:PHE:HB2	1:B:2253:LEU:HD13	2.01	0.43
1:B:2385:GLY:O	1:B:2389:MET:HG3	2.19	0.43
1:B:2968:LEU:HB2	1:B:2969:PRO:HD3	2.00	0.43
1:B:3002:GLU:OE1	1:B:3053:VAL:HG21	2.19	0.43
1:B:3164:GLY:O	1:B:3247:SER:CA	2.66	0.43
1:B:3165:ALA:H	1:B:3245:TYR:N	2.08	0.43
1:B:3249:TRP:HA	1:B:3252:HIS:HB3	2.01	0.43
1:B:4625:ASP:OD1	1:B:4625:ASP:N	2.49	0.43
1:B:4960:LYS:HB2	1:B:4960:LYS:HE2	1.89	0.43
1:C:1089:ARG:HB3	1:C:1204:VAL:HG23	2.00	0.43
1:C:1100:ARG:HB3	1:C:1236:TYR:CD1	2.54	0.43
1:C:2214:MET:HE2	1:C:2214:MET:CA	2.47	0.43
1:C:2785:TRP:CH2	1:C:2847:ASN:HB2	2.54	0.43
1:C:4618:THR:HG23	1:C:4619:GLU:OE1	2.19	0.43
1:D:163:HIS:HB2	1:D:182:ILE:HG13	2.01	0.43
1:D:394:HIS:CE1	1:D:396:GLU:HB2	2.53	0.43
1:D:1100:ARG:HB3	1:D:1236:TYR:CD1	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1436:GLN:H	1:D:1500:ARG:HH22	1.66	0.43
1:D:3016:ARG:HH12	1:D:3063:ASN:HB3	1.83	0.43
1:D:3805:LEU:HD11	1:D:3887:ASP:HB3	2.00	0.43
1:D:3879:LEU:O	1:D:3882:GLN:HG3	2.18	0.43
1:D:4055:HIS:C	1:D:4057:HIS:H	2.23	0.43
1:D:4618:THR:HG23	1:D:4619:GLU:OE1	2.19	0.43
3:L:4:GLN:HG2	3:L:5:LEU:N	2.33	0.43
1:A:394:HIS:CE1	1:A:396:GLU:HB2	2.53	0.42
1:A:995:MET:CE	1:A:1066:ALA:HB2	2.49	0.42
1:A:1444:GLY:HA3	1:A:1487:MET:HA	2.01	0.42
1:A:2296:GLU:HG3	1:A:2390:THR:HG22	2.01	0.42
1:A:2844:MET:HE2	1:A:2845:ALA:N	2.34	0.42
1:A:4635:ILE:HG22	1:A:4670:LEU:HA	2.01	0.42
1:A:4714:PHE:CG	1:D:4294:LEU:HD13	2.54	0.42
1:A:4943:MET:HE3	1:A:4950:GLU:HB2	2.01	0.42
1:B:1226:TYR:HD1	1:B:1229:ILE:HD11	1.83	0.42
1:B:1494:MET:O	1:B:1494:MET:CG	2.67	0.42
1:B:2403:ALA:HB2	1:B:2475:VAL:HG22	2.00	0.42
1:B:4186:MET:O	1:B:4190:VAL:HG23	2.19	0.42
1:C:163:HIS:HB2	1:C:182:ILE:HG13	2.01	0.42
1:C:602:ASP:HA	1:C:642:LEU:HD21	2.00	0.42
1:C:1014:GLN:HB3	1:C:1027:ARG:HH21	1.84	0.42
1:C:1100:ARG:HH22	1:C:1236:TYR:N	2.17	0.42
1:C:1282:CYS:SG	1:C:1556:GLU:HG2	2.59	0.42
1:C:1839:LEU:HA	1:C:1842:ILE:HG22	2.01	0.42
1:C:2215:PHE:CG	1:C:2253:LEU:HD22	2.54	0.42
1:C:2849:HIS:CE1	1:C:2877:LEU:HD11	2.54	0.42
1:C:2999:LYS:O	1:C:3003:MET:HG2	2.19	0.42
1:C:4055:HIS:C	1:C:4057:HIS:H	2.23	0.42
1:D:877:HIS:HA	1:D:880:ARG:NE	2.34	0.42
1:D:1444:GLY:CA	1:D:1487:MET:HG2	2.49	0.42
1:D:2968:LEU:HB2	1:D:2969:PRO:HD3	2.00	0.42
1:D:3160:ALA:O	1:D:3163:ALA:N	2.52	0.42
1:D:4943:MET:HE3	1:D:4950:GLU:HB2	2.01	0.42
1:A:1839:LEU:HA	1:A:1842:ILE:HG22	2.01	0.42
1:A:2895:PHE:O	1:A:2898:ILE:HG22	2.20	0.42
1:A:3288:LEU:HD12	1:A:3325:LYS:HB3	2.01	0.42
1:A:3879:LEU:O	1:A:3882:GLN:HG3	2.18	0.42
1:A:4793:TYR:HH	1:A:4816:HIS:CE1	2.37	0.42
3:I:42:GLN:O	3:I:44:PRO:HD3	2.19	0.42
1:B:514:PHE:CD2	1:B:526:TRP:HB2	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:602:ASP:HA	1:B:642:LEU:HD21	2.00	0.42
1:B:739:ARG:HD3	1:B:1480:ILE:HD13	2.01	0.42
1:B:982:ASP:N	1:B:982:ASP:OD1	2.52	0.42
1:B:1100:ARG:HB3	1:B:1236:TYR:CD1	2.54	0.42
1:B:2727:HIS:NE2	1:B:2825:ALA:HB1	2.34	0.42
1:B:2956:TYR:HA	1:B:2959:GLU:OE1	2.19	0.42
1:B:3787:VAL:HG12	1:B:3791:GLN:HG3	2.02	0.42
1:C:1494:MET:O	1:C:1494:MET:CG	2.67	0.42
1:C:2296:GLU:HG3	1:C:2390:THR:HG22	2.01	0.42
1:C:3045:VAL:HA	1:C:3054:LYS:HE2	2.00	0.42
1:D:739:ARG:HD3	1:D:1480:ILE:HD13	2.01	0.42
1:D:827:LEU:HD23	1:D:827:LEU:HA	1.91	0.42
1:D:3026:ALA:O	1:D:3030:VAL:HG23	2.18	0.42
1:D:3034:HIS:HA	1:D:3104:MET:CE	2.50	0.42
1:D:3045:VAL:HA	1:D:3054:LYS:HE2	2.00	0.42
1:D:3589:LYS:HB3	1:D:3589:LYS:HE2	1.39	0.42
1:D:3999:MET:SD	1:D:4101:LEU:HD11	2.59	0.42
3:J:4:GLN:HG2	3:J:5:LEU:N	2.33	0.42
3:K:123:ASP:O	3:K:126:ILE:HG22	2.19	0.42
3:K:145:MET:HE2	3:K:145:MET:HB2	1.83	0.42
1:A:891:GLU:HB3	1:A:978:PRO:HG2	2.01	0.42
1:A:1444:GLY:CA	1:A:1487:MET:HG2	2.49	0.42
1:A:1944:TYR:HE1	1:A:3605:MET:HE1	1.84	0.42
1:A:2403:ALA:HB2	1:A:2475:VAL:HG22	2.00	0.42
1:A:3016:ARG:NH1	1:A:3063:ASN:HB3	2.34	0.42
1:A:3999:MET:SD	1:A:4101:LEU:HD11	2.59	0.42
2:G:26:HIS:CE1	2:G:105:LEU:HD21	2.54	0.42
1:B:1766:PRO:HG3	1:B:1780:PRO:HB3	2.01	0.42
1:B:1839:LEU:HA	1:B:1842:ILE:HG22	2.01	0.42
1:B:1900:GLU:HG2	1:B:2080:LEU:HD23	2.00	0.42
1:B:3001:LYS:O	1:B:3005:THR:HG23	2.18	0.42
1:B:3045:VAL:HA	1:B:3054:LYS:HE2	2.00	0.42
1:B:4055:HIS:C	1:B:4057:HIS:H	2.23	0.42
1:B:4640:PHE:CG	1:B:4641:PRO:HD3	2.54	0.42
1:C:1041:ARG:HA	1:C:1044:LYS:HZ2	1.83	0.42
1:C:1253:LYS:HB2	1:C:1253:LYS:HE2	1.76	0.42
1:C:2403:ALA:HB2	1:C:2475:VAL:HG22	2.00	0.42
1:C:2727:HIS:NE2	1:C:2825:ALA:HB1	2.34	0.42
1:C:2833:LEU:HB3	1:C:2837:LEU:HB3	2.01	0.42
1:C:3016:ARG:HH12	1:C:3063:ASN:HB3	1.83	0.42
1:D:920:GLU:O	1:D:924:LEU:N	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2215:PHE:CG	1:D:2253:LEU:HD22	2.54	0.42
1:D:2235:ARG:HA	1:D:2297:ARG:HH12	1.84	0.42
1:D:2573:LEU:HD12	1:D:2573:LEU:HA	1.93	0.42
1:D:2956:TYR:HA	1:D:2959:GLU:OE1	2.19	0.42
1:D:3002:GLU:OE1	1:D:3053:VAL:HG21	2.19	0.42
1:D:3179:ASN:O	1:D:3182:SER:OG	2.24	0.42
1:D:3650:GLU:HB2	1:D:3651:PRO:HD3	2.01	0.42
1:D:3718:GLU:O	1:D:3722:GLN:HG2	2.19	0.42
1:D:4640:PHE:CG	1:D:4641:PRO:HD3	2.54	0.42
3:L:123:ASP:O	3:L:127:ARG:HG2	2.19	0.42
1:A:163:HIS:HB2	1:A:182:ILE:HG13	2.01	0.42
1:A:877:HIS:HA	1:A:880:ARG:NE	2.34	0.42
1:A:1434:PRO:HA	1:A:1500:ARG:HH12	1.84	0.42
1:A:1494:MET:O	1:A:1494:MET:CG	2.67	0.42
1:A:3965:ILE:O	1:A:3969:LYS:HD3	2.19	0.42
1:B:163:HIS:HB2	1:B:182:ILE:HG13	2.01	0.42
1:B:721:ASP:OD2	1:B:721:ASP:N	2.52	0.42
1:B:2833:LEU:HB3	1:B:2837:LEU:HB3	2.01	0.42
1:B:3034:HIS:HA	1:B:3104:MET:CE	2.50	0.42
1:B:3718:GLU:O	1:B:3722:GLN:HG2	2.19	0.42
1:B:3965:ILE:O	1:B:3969:LYS:HD3	2.19	0.42
1:B:3999:MET:SD	1:B:4101:LEU:HD11	2.59	0.42
1:C:3062:ASP:O	1:C:3065:ALA:HB3	2.20	0.42
1:C:3160:ALA:O	1:C:3163:ALA:N	2.52	0.42
1:D:182:ILE:HG13	1:D:182:ILE:O	2.19	0.42
1:D:514:PHE:CD2	1:D:526:TRP:HB2	2.51	0.42
1:D:1282:CYS:SG	1:D:1556:GLU:HG2	2.59	0.42
1:D:2849:HIS:CE1	1:D:2877:LEU:HD11	2.54	0.42
1:D:3234:VAL:O	1:D:3238:ILE:HB	2.19	0.42
1:D:3882:GLN:NE2	1:D:3883:GLU:HG3	2.34	0.42
1:D:4641:PRO:HG2	1:D:4646:ASP:O	2.20	0.42
1:D:4694:LEU:HA	1:D:4697:VAL:HG22	2.01	0.42
3:J:106:LEU:HA	3:J:109:VAL:HG12	2.01	0.42
1:A:721:ASP:OD2	1:A:721:ASP:N	2.52	0.42
1:A:1900:GLU:HG2	1:A:2080:LEU:HD23	2.00	0.42
1:A:2385:GLY:O	1:A:2389:MET:HG3	2.19	0.42
1:A:3165:ALA:HB3	1:A:3244:SER:OG	2.20	0.42
1:A:3882:GLN:NE2	1:A:3883:GLU:HG3	2.34	0.42
1:A:4055:HIS:C	1:A:4057:HIS:H	2.23	0.42
1:A:4502:MET:SD	1:A:4585:PHE:HB3	2.60	0.42
1:A:4618:THR:HG23	1:A:4619:GLU:OE1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4641:PRO:HG2	1:A:4646:ASP:O	2.20	0.42
2:F:19:LYS:HA	2:F:19:LYS:CE	2.44	0.42
1:B:59:PRO:HG3	1:B:296:ARG:CZ	2.50	0.42
1:B:1249:MET:HB3	1:B:1249:MET:HE2	1.98	0.42
1:B:1444:GLY:CA	1:B:1487:MET:HG2	2.49	0.42
1:B:3209:PRO:HG2	1:B:3214:LEU:HD21	2.01	0.42
1:C:125:TYR:CZ	1:C:417:ARG:HG2	2.55	0.42
1:C:876:PRO:HA	1:C:879:GLU:CG	2.48	0.42
1:C:995:MET:CE	1:C:1066:ALA:HB2	2.49	0.42
1:C:1434:PRO:HA	1:C:1500:ARG:HH12	1.84	0.42
1:C:1894:LEU:HD22	1:C:2065:THR:HG21	2.01	0.42
1:C:2488:LEU:HD21	1:C:2548:LEU:HD22	2.00	0.42
1:C:2956:TYR:HA	1:C:2959:GLU:OE1	2.19	0.42
1:C:3002:GLU:OE1	1:C:3053:VAL:HG21	2.19	0.42
1:C:3718:GLU:O	1:C:3722:GLN:HG2	2.19	0.42
1:C:3805:LEU:HD11	1:C:3887:ASP:HB3	2.00	0.42
1:C:4255:LEU:HD13	1:C:4293:THR:OG1	2.20	0.42
1:C:4640:PHE:CG	1:C:4641:PRO:HD3	2.54	0.42
1:D:28:ILE:HG22	1:D:29:HIS:CD2	2.55	0.42
1:D:765:SER:HA	1:D:779:PHE:O	2.20	0.42
1:D:1766:PRO:HG3	1:D:1780:PRO:HB3	2.01	0.42
1:D:2215:PHE:HB2	1:D:2253:LEU:HD13	2.01	0.42
1:D:2635:GLU:OE2	1:D:2680:TYR:OH	2.31	0.42
1:D:2785:TRP:CH2	1:D:2847:ASN:HB2	2.54	0.42
1:D:2940:ILE:HG21	1:D:3018:ARG:HG2	2.01	0.42
1:D:3209:PRO:HG2	1:D:3214:LEU:HD21	2.01	0.42
1:D:4793:TYR:HH	1:D:4816:HIS:CE1	2.37	0.42
1:A:255:GLU:OE2	1:A:255:GLU:N	2.45	0.42
1:A:739:ARG:HD3	1:A:1480:ILE:HD13	2.01	0.42
1:A:1038:LEU:O	1:A:1043:LYS:HE2	2.20	0.42
1:A:2071:GLN:O	1:A:3660:ARG:NH1	2.52	0.42
1:A:2727:HIS:NE2	1:A:2825:ALA:HB1	2.34	0.42
1:A:3034:HIS:HA	1:A:3104:MET:CE	2.50	0.42
1:A:3127:GLN:OE1	1:A:3168:VAL:HG11	2.20	0.42
1:A:3787:VAL:HG12	1:A:3791:GLN:HG3	2.01	0.42
1:A:4000:VAL:O	1:A:4004:VAL:HG23	2.18	0.42
3:I:123:ASP:O	3:I:126:ILE:HG22	2.20	0.42
1:B:877:HIS:HA	1:B:880:ARG:NE	2.35	0.42
1:B:1894:LEU:HD23	1:B:1894:LEU:HA	1.94	0.42
1:B:2235:ARG:HA	1:B:2297:ARG:HH12	1.83	0.42
1:B:3016:ARG:NH1	1:B:3063:ASN:HB3	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:765:SER:HA	1:C:779:PHE:O	2.20	0.42
1:C:1004:HIS:HD2	1:C:1035:TYR:HB2	1.85	0.42
1:C:1444:GLY:CA	1:C:1487:MET:HG2	2.49	0.42
1:C:2979:ARG:NH1	1:C:3039:THR:HA	2.35	0.42
1:C:3034:HIS:HA	1:C:3104:MET:CE	2.50	0.42
1:C:3787:VAL:HG12	1:C:3791:GLN:HG3	2.02	0.42
1:C:3999:MET:SD	1:C:4101:LEU:HD11	2.59	0.42
1:D:897:LYS:HB2	1:D:902:TRP:HB2	2.01	0.42
1:D:2071:GLN:O	1:D:3660:ARG:NH1	2.52	0.42
1:D:2290:TRP:CZ3	1:D:2292:PRO:HB3	2.55	0.42
1:D:2895:PHE:O	1:D:2898:ILE:HG22	2.20	0.42
1:D:3016:ARG:NH1	1:D:3063:ASN:HB3	2.34	0.42
1:D:4094:ILE:O	1:D:4098:VAL:HG23	2.20	0.42
1:D:4255:LEU:HD13	1:D:4293:THR:OG1	2.20	0.42
3:J:22:LYS:HD3	3:J:22:LYS:N	2.32	0.42
3:J:123:ASP:O	3:J:126:ILE:HG22	2.20	0.42
1:A:28:ILE:HG22	1:A:29:HIS:CD2	2.55	0.42
1:A:125:TYR:CZ	1:A:417:ARG:HG2	2.55	0.42
1:A:168:GLN:HE21	1:D:240:HIS:HB2	1.85	0.42
1:A:561:ARG:HG2	1:A:561:ARG:HH11	1.85	0.42
1:A:718:VAL:HG23	1:A:793:SER:HB3	2.02	0.42
1:A:982:ASP:OD1	1:A:982:ASP:N	2.52	0.42
1:A:2729:HIS:NE2	1:A:2763:LEU:HD21	2.35	0.42
1:A:2926:LEU:HD23	1:A:2926:LEU:HA	1.86	0.42
1:A:3062:ASP:O	1:A:3065:ALA:HB3	2.20	0.42
2:F:26:HIS:CE1	2:F:105:LEU:HD21	2.54	0.42
2:H:51:ILE:O	2:H:53:LYS:NZ	2.39	0.42
3:I:30:THR:HG22	3:I:53:ILE:HD12	2.02	0.42
1:B:1253:LYS:HE2	1:B:1253:LYS:HB2	1.76	0.42
1:B:1889:PRO:HB2	1:B:1890:LYS:H	1.64	0.42
1:B:2071:GLN:O	1:B:3660:ARG:NH1	2.52	0.42
1:B:3017:HIS:C	1:B:3018:ARG:HD2	2.40	0.42
1:B:3062:ASP:O	1:B:3065:ALA:HB3	2.20	0.42
1:B:3165:ALA:HB3	1:B:3244:SER:OG	2.20	0.42
1:B:3323:MET:HE2	1:B:3323:MET:N	2.35	0.42
1:B:4795:LYS:HA	1:B:4795:LYS:HD2	1.67	0.42
1:C:1944:TYR:CE1	1:C:3605:MET:HE1	2.55	0.42
1:C:3017:HIS:C	1:C:3018:ARG:HD2	2.40	0.42
1:C:3195:LEU:C	1:C:3197:LEU:H	2.23	0.42
1:C:3209:PRO:HG2	1:C:3214:LEU:HD21	2.01	0.42
1:C:3299:LEU:H	1:C:3299:LEU:HG	1.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4140:GLY:HA3	1:C:4146:GLU:OE1	2.20	0.42
1:D:874:LEU:HD23	1:D:879:GLU:HB3	2.01	0.42
1:D:1100:ARG:HH22	1:D:1236:TYR:N	2.17	0.42
1:D:1839:LEU:HA	1:D:1842:ILE:HG22	2.01	0.42
1:D:2729:HIS:NE2	1:D:2763:LEU:HD21	2.35	0.42
1:D:3045:VAL:HG22	1:D:3054:LYS:HE2	2.00	0.42
1:D:3165:ALA:HB3	1:D:3244:SER:OG	2.20	0.42
1:D:3249:TRP:HA	1:D:3252:HIS:HB3	2.01	0.42
3:L:30:THR:HG22	3:L:53:ILE:HD12	2.02	0.42
3:K:123:ASP:O	3:K:127:ARG:HG2	2.19	0.42
1:A:312:LYS:HE2	1:A:393:MET:O	2.19	0.42
1:A:500:GLU:HB3	1:A:504:ARG:NH1	2.35	0.42
1:A:1014:GLN:HB3	1:A:1027:ARG:HH21	1.84	0.42
1:A:3002:GLU:OE1	1:A:3053:VAL:HG21	2.19	0.42
1:A:3209:PRO:HG2	1:A:3214:LEU:HD21	2.01	0.42
1:A:3845:LEU:HA	1:A:3848:GLU:HG2	2.00	0.42
1:A:4040:LYS:HD2	1:A:4042:VAL:N	2.25	0.42
1:A:4094:ILE:O	1:A:4098:VAL:HG23	2.20	0.42
1:A:4737:PHE:CD1	1:B:4783:VAL:HG13	2.54	0.42
1:B:28:ILE:HG22	1:B:29:HIS:CD2	2.55	0.42
1:B:1282:CYS:SG	1:B:1556:GLU:HG2	2.59	0.42
1:B:2689:MET:CE	1:B:2691:LYS:HE2	2.50	0.42
1:B:2729:HIS:NE2	1:B:2763:LEU:HD21	2.34	0.42
1:C:28:ILE:HG22	1:C:29:HIS:CD2	2.55	0.42
1:C:59:PRO:HG3	1:C:296:ARG:CZ	2.50	0.42
1:C:537:LEU:O	1:C:541:ILE:HG12	2.20	0.42
1:C:2077:ASP:OD2	1:C:2080:LEU:N	2.52	0.42
1:C:2968:LEU:HB2	1:C:2969:PRO:HD3	2.00	0.42
1:C:3016:ARG:NH1	1:C:3063:ASN:HB3	2.34	0.42
1:D:675:TYR:HB3	1:D:822:CYS:SG	2.60	0.42
1:D:2202:TYR:CE2	1:D:2206:ILE:HD11	2.55	0.42
1:D:2385:GLY:O	1:D:2389:MET:HG3	2.19	0.42
1:D:3164:GLY:CA	1:D:3244:SER:N	2.83	0.42
1:A:2277:CYS:HB3	1:A:2280:LEU:HB2	2.02	0.42
1:B:629:GLN:OE1	1:B:1669:ASN:ND2	2.39	0.42
1:B:675:TYR:HB3	1:B:822:CYS:SG	2.60	0.42
1:B:2277:CYS:HB3	1:B:2280:LEU:HB2	2.02	0.42
1:B:2979:ARG:NH1	1:B:3039:THR:HA	2.35	0.42
1:B:3109:PHE:O	1:B:3112:ILE:HG22	2.20	0.42
1:C:877:HIS:HA	1:C:880:ARG:NE	2.34	0.42
1:C:2326:ARG:HD3	1:C:2326:ARG:HA	1.75	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2385:GLY:O	1:C:2389:MET:HG3	2.19	0.42
1:C:3109:PHE:O	1:C:3112:ILE:HG22	2.20	0.42
1:C:3164:GLY:CA	1:C:3244:SER:N	2.83	0.42
1:C:3165:ALA:HB3	1:C:3244:SER:OG	2.20	0.42
1:C:3234:VAL:O	1:C:3238:ILE:HB	2.19	0.42
1:C:3287:ASN:O	1:C:3290:ILE:HG12	2.20	0.42
1:C:3793:LEU:HD23	1:C:3793:LEU:HA	1.90	0.42
1:C:4694:LEU:HA	1:C:4697:VAL:HG22	2.01	0.42
1:D:59:PRO:HG3	1:D:296:ARG:CZ	2.50	0.42
1:D:125:TYR:CZ	1:D:417:ARG:HG2	2.55	0.42
1:D:246:THR:OG1	1:D:247:VAL:N	2.53	0.42
1:D:500:GLU:HB3	1:D:504:ARG:NH1	2.35	0.42
1:D:561:ARG:HG2	1:D:561:ARG:HH11	1.85	0.42
1:D:785:ASP:OD1	1:D:786:GLY:N	2.53	0.42
1:D:2077:ASP:OD2	1:D:2080:LEU:N	2.52	0.42
1:D:2727:HIS:NE2	1:D:2825:ALA:HB1	2.34	0.42
1:D:3109:PHE:O	1:D:3112:ILE:HG22	2.20	0.42
1:D:3127:GLN:OE1	1:D:3168:VAL:HG11	2.20	0.42
1:D:3127:GLN:HB3	1:D:3183:ILE:HD12	2.02	0.42
1:D:3299:LEU:H	1:D:3299:LEU:HG	1.63	0.42
1:D:4140:GLY:HA3	1:D:4146:GLU:OE1	2.20	0.42
1:D:4186:MET:O	1:D:4190:VAL:HG23	2.19	0.42
1:D:4502:MET:SD	1:D:4585:PHE:HB3	2.60	0.42
1:A:182:ILE:HG13	1:A:182:ILE:O	2.19	0.42
1:A:897:LYS:HB2	1:A:902:TRP:HB2	2.01	0.42
1:A:1004:HIS:HD2	1:A:1035:TYR:HB2	1.85	0.42
1:A:1894:LEU:HD22	1:A:2065:THR:HG21	2.02	0.42
1:A:2202:TYR:CE2	1:A:2206:ILE:HD11	2.55	0.42
1:A:2488:LEU:HD21	1:A:2548:LEU:HD22	2.00	0.42
1:A:2940:ILE:HG21	1:A:3018:ARG:HG2	2.01	0.42
1:A:2956:TYR:HA	1:A:2959:GLU:OE1	2.19	0.42
1:A:2968:LEU:HB2	1:A:2969:PRO:HD3	2.00	0.42
1:A:3172:GLU:OE2	1:A:3175:LEU:N	2.50	0.42
1:A:3650:GLU:HB2	1:A:3651:PRO:HD3	2.01	0.42
1:A:3718:GLU:O	1:A:3722:GLN:HG2	2.19	0.42
2:E:26:HIS:CE1	2:E:105:LEU:HD21	2.54	0.42
1:B:1444:GLY:HA3	1:B:1487:MET:HG2	2.02	0.42
1:B:3127:GLN:OE1	1:B:3168:VAL:HG11	2.20	0.42
1:B:3287:ASN:O	1:B:3290:ILE:HG12	2.20	0.42
1:B:4257:ARG:HA	1:B:4260:SER:HB2	2.01	0.42
1:B:4943:MET:HE3	1:B:4950:GLU:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2071:GLN:O	1:C:3660:ARG:NH1	2.52	0.42
1:C:2290:TRP:CZ3	1:C:2292:PRO:HB3	2.55	0.42
1:C:4094:ILE:O	1:C:4098:VAL:HG23	2.20	0.42
1:C:4156:SER:HB3	1:C:4923:MET:HE1	2.02	0.42
1:D:1004:HIS:HD2	1:D:1035:TYR:HB2	1.85	0.42
1:D:2999:LYS:O	1:D:3003:MET:HG2	2.19	0.42
1:D:3269:ASN:O	1:D:3273:MET:HE1	2.19	0.42
1:D:3287:ASN:O	1:D:3290:ILE:HG12	2.20	0.42
1:D:3787:VAL:HG12	1:D:3791:GLN:HG3	2.01	0.42
1:D:3965:ILE:O	1:D:3969:LYS:HD3	2.19	0.42
3:J:42:GLN:O	3:J:44:PRO:HD3	2.19	0.42
1:A:59:PRO:HG3	1:A:296:ARG:CZ	2.50	0.41
1:A:2734:MET:HE1	1:A:2825:ALA:H	1.84	0.41
1:A:2849:HIS:CE1	1:A:2877:LEU:HD11	2.54	0.41
1:A:3805:LEU:HD11	1:A:3887:ASP:HB3	2.00	0.41
1:A:4186:MET:O	1:A:4190:VAL:HG23	2.19	0.41
1:A:4287:TYR:HE1	1:B:4591:TYR:HD2	1.67	0.41
1:B:253:GLY:O	1:B:257:ARG:HG2	2.20	0.41
1:B:537:LEU:O	1:B:541:ILE:HG12	2.20	0.41
1:B:718:VAL:HG23	1:B:793:SER:HB3	2.02	0.41
1:B:804:LEU:HD13	1:B:832:LEU:HD21	2.02	0.41
1:B:1089:ARG:HB3	1:B:1204:VAL:HG23	2.00	0.41
1:B:1434:PRO:HA	1:B:1500:ARG:HH12	1.84	0.41
1:B:1944:TYR:CE1	1:B:3605:MET:HE1	2.55	0.41
1:B:2957:GLU:O	1:B:2961:LYS:HE2	2.20	0.41
1:B:3016:ARG:HG2	1:B:3017:HIS:NE2	2.35	0.41
1:B:3102:LEU:HD13	1:B:3137:LEU:CD2	2.50	0.41
1:C:2277:CYS:HB3	1:C:2280:LEU:HB2	2.02	0.41
1:C:3067:ASP:O	1:C:3071:THR:HG23	2.20	0.41
1:C:3882:GLN:NE2	1:C:3883:GLU:HG3	2.34	0.41
1:C:4502:MET:SD	1:C:4585:PHE:HB3	2.60	0.41
3:L:123:ASP:O	3:L:126:ILE:HG22	2.19	0.41
1:A:246:THR:OG1	1:A:247:VAL:N	2.53	0.41
1:A:677:LEU:HD12	1:A:801:ARG:O	2.20	0.41
1:A:2290:TRP:CZ3	1:A:2292:PRO:HB3	2.55	0.41
1:A:3127:GLN:HB3	1:A:3183:ILE:HD12	2.02	0.41
1:A:3287:ASN:O	1:A:3290:ILE:HG12	2.20	0.41
3:I:106:LEU:HA	3:I:109:VAL:HG12	2.01	0.41
3:I:123:ASP:O	3:I:127:ARG:HG2	2.20	0.41
1:B:23:GLN:HG3	1:B:34:LYS:HD2	2.02	0.41
1:B:1760:ARG:NE	1:B:1762:GLN:HE22	2.14	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2172:MET:O	1:B:2176:VAL:N	2.43	0.41
1:B:2290:TRP:CZ3	1:B:2292:PRO:HB3	2.55	0.41
1:B:2319:VAL:O	1:B:2323:LEU:HG	2.21	0.41
1:B:4641:PRO:HG2	1:B:4646:ASP:O	2.20	0.41
1:B:4748:MET:N	1:B:4748:MET:SD	2.93	0.41
1:C:785:ASP:OD1	1:C:786:GLY:N	2.53	0.41
1:C:2729:HIS:NE2	1:C:2763:LEU:HD21	2.35	0.41
1:C:3183:ILE:HG13	1:C:3187:LYS:HZ2	1.82	0.41
1:C:3260:ARG:NH2	1:C:3264:CYS:SG	2.93	0.41
1:D:234:LEU:HD13	1:D:405:LEU:HD22	2.03	0.41
1:D:804:LEU:HD13	1:D:832:LEU:HD21	2.02	0.41
1:D:1434:PRO:HA	1:D:1500:ARG:HH12	1.84	0.41
1:D:3062:ASP:O	1:D:3065:ALA:HB3	2.20	0.41
1:D:3972:MET:HE2	1:D:3972:MET:HA	2.01	0.41
3:L:106:LEU:HA	3:L:109:VAL:HG12	2.01	0.41
3:K:42:GLN:O	3:K:44:PRO:HD3	2.19	0.41
1:A:785:ASP:OD1	1:A:786:GLY:N	2.53	0.41
1:A:1552:VAL:HG12	1:A:1553:PHE:HD1	1.86	0.41
1:A:1766:PRO:HG3	1:A:1780:PRO:HB3	2.01	0.41
1:A:2833:LEU:HB3	1:A:2837:LEU:HB3	2.01	0.41
2:H:26:HIS:CE1	2:H:105:LEU:HD21	2.54	0.41
1:B:765:SER:HA	1:B:779:PHE:O	2.20	0.41
1:B:885:LEU:O	1:B:889:ILE:HG12	2.21	0.41
1:B:903:GLN:HB2	1:B:913:ARG:HG3	2.02	0.41
1:B:1434:PRO:HA	1:B:1500:ARG:NH1	2.36	0.41
1:B:2326:ARG:HA	1:B:2326:ARG:HD3	1.75	0.41
1:B:3650:GLU:HB2	1:B:3651:PRO:HD3	2.01	0.41
1:B:4694:LEU:HA	1:B:4697:VAL:HG22	2.01	0.41
1:C:561:ARG:HG2	1:C:561:ARG:HH11	1.85	0.41
1:C:1724:GLU:HG2	1:C:2165:LEU:HD23	2.03	0.41
1:C:3650:GLU:HB2	1:C:3651:PRO:HD3	2.01	0.41
1:C:3972:MET:HE2	1:C:3972:MET:HA	2.01	0.41
1:C:4257:ARG:O	1:C:4261:LEU:HG	2.21	0.41
1:C:4641:PRO:HG2	1:C:4646:ASP:O	2.20	0.41
1:C:4898:PHE:O	1:C:4904:GLY:HA3	2.20	0.41
1:D:537:LEU:O	1:D:541:ILE:HG12	2.20	0.41
1:D:1434:PRO:HA	1:D:1500:ARG:NH1	2.36	0.41
1:D:2296:GLU:HG3	1:D:2390:THR:HG22	2.01	0.41
1:D:2734:MET:HG2	1:D:2823:PRO:HG2	2.02	0.41
1:D:3025:ASP:O	1:D:3029:ILE:HG13	2.19	0.41
1:D:3260:ARG:NH2	1:D:3264:CYS:SG	2.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4257:ARG:HA	1:D:4260:SER:HB2	2.01	0.41
3:K:118:THR:O	3:K:122:VAL:HG23	2.20	0.41
1:A:370:LEU:CD2	1:A:395:HIS:HB3	2.51	0.41
1:A:675:TYR:HB3	1:A:822:CYS:SG	2.60	0.41
1:A:1444:GLY:HA3	1:A:1487:MET:HG2	2.02	0.41
1:A:3260:ARG:NH2	1:A:3264:CYS:SG	2.94	0.41
1:A:3587:TRP:HA	1:A:3590:LEU:HD12	2.02	0.41
1:A:4140:GLY:HA3	1:A:4146:GLU:OE1	2.20	0.41
1:A:4255:LEU:HD13	1:A:4293:THR:OG1	2.20	0.41
1:A:4280:VAL:CG2	1:B:4487:TYR:HE2	2.34	0.41
1:B:234:LEU:HD13	1:B:405:LEU:HD22	2.03	0.41
1:B:677:LEU:HD12	1:B:801:ARG:O	2.20	0.41
1:B:1552:VAL:HG12	1:B:1553:PHE:HD1	1.86	0.41
1:B:4502:MET:SD	1:B:4585:PHE:HB3	2.60	0.41
1:C:1038:LEU:O	1:C:1043:LYS:HE2	2.20	0.41
1:C:1124:PRO:HD3	1:C:1596:TRP:NE1	2.36	0.41
1:C:1649:GLU:HG2	1:C:1650:LEU:N	2.36	0.41
1:C:2957:GLU:O	1:C:2961:LYS:HE2	2.20	0.41
1:C:3072:MET:CE	1:C:3140:LEU:HG	2.51	0.41
1:C:3249:TRP:HA	1:C:3252:HIS:HB3	2.01	0.41
1:D:1038:LEU:HD23	1:D:1039:ASP:O	2.20	0.41
1:D:3017:HIS:C	1:D:3018:ARG:HD2	2.40	0.41
1:D:3102:LEU:HD13	1:D:3137:LEU:CD2	2.50	0.41
3:L:42:GLN:O	3:L:44:PRO:HD3	2.19	0.41
3:K:30:THR:HG22	3:K:53:ILE:HD12	2.02	0.41
1:A:23:GLN:HG3	1:A:34:LYS:HD2	2.02	0.41
1:A:799:LYS:NZ	1:A:1620:GLN:OE1	2.54	0.41
1:A:874:LEU:HD12	1:A:875:PRO:CD	2.48	0.41
1:A:1038:LEU:HD23	1:A:1039:ASP:O	2.20	0.41
1:A:1446:ILE:HG12	1:A:1542:ALA:HB2	2.02	0.41
1:A:2319:VAL:O	1:A:2323:LEU:HG	2.21	0.41
1:A:2429:LEU:HD21	1:A:2483:PHE:CE1	2.56	0.41
1:A:2957:GLU:O	1:A:2961:LYS:HE2	2.20	0.41
1:A:3195:LEU:C	1:A:3197:LEU:H	2.23	0.41
1:A:3972:MET:HE2	1:A:3972:MET:HA	2.01	0.41
1:A:4294:LEU:HD22	1:B:4719:PHE:CD2	2.55	0.41
1:A:4748:MET:N	1:A:4748:MET:SD	2.93	0.41
1:B:169:ARG:HA	1:B:169:ARG:HD3	1.94	0.41
1:B:500:GLU:HB3	1:B:504:ARG:NH1	2.35	0.41
1:B:561:ARG:HG2	1:B:561:ARG:HH11	1.85	0.41
1:B:1649:GLU:HG2	1:B:1650:LEU:N	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1823:LYS:HB2	1:B:1905:GLN:HE22	1.86	0.41
1:B:3793:LEU:HD23	1:B:3793:LEU:HA	1.90	0.41
1:B:4000:VAL:O	1:B:4004:VAL:HG23	2.18	0.41
1:B:4140:GLY:HA3	1:B:4146:GLU:OE1	2.20	0.41
1:B:4255:LEU:HD13	1:B:4293:THR:OG1	2.20	0.41
1:B:4898:PHE:O	1:B:4904:GLY:HA3	2.20	0.41
1:C:240:HIS:ND1	1:C:240:HIS:C	2.74	0.41
1:C:885:LEU:O	1:C:889:ILE:HG12	2.21	0.41
1:C:2351:ILE:HD11	1:C:2460:PHE:HB2	2.03	0.41
1:C:2573:LEU:HD12	1:C:2573:LEU:HA	1.93	0.41
1:C:2895:PHE:O	1:C:2898:ILE:HG22	2.20	0.41
1:C:3127:GLN:OE1	1:C:3168:VAL:HG11	2.20	0.41
1:D:721:ASP:OD2	1:D:721:ASP:N	2.52	0.41
1:D:1038:LEU:O	1:D:1043:LYS:HE2	2.20	0.41
1:D:2351:ILE:HD11	1:D:2460:PHE:HB2	2.03	0.41
3:K:106:LEU:HA	3:K:109:VAL:HG12	2.01	0.41
1:A:804:LEU:HD13	1:A:832:LEU:HD21	2.02	0.41
1:A:874:LEU:HD23	1:A:879:GLU:HB3	2.02	0.41
1:A:916:PRO:O	1:A:919:VAL:HG22	2.21	0.41
1:A:3000:GLU:HA	1:A:3003:MET:HG2	2.02	0.41
1:A:3072:MET:CE	1:A:3140:LEU:HG	2.51	0.41
1:A:3109:PHE:O	1:A:3112:ILE:HG22	2.20	0.41
1:A:3160:ALA:HB2	1:A:3240:PRO:HB2	2.02	0.41
1:A:3164:GLY:CA	1:A:3244:SER:N	2.83	0.41
3:I:90:PHE:HZ	3:I:99:GLY:O	2.04	0.41
1:B:388:GLN:HG3	1:B:388:GLN:O	2.21	0.41
1:B:785:ASP:OD1	1:B:786:GLY:N	2.53	0.41
1:B:1004:HIS:HD2	1:B:1035:TYR:HB2	1.85	0.41
1:B:2351:ILE:HD11	1:B:2460:PHE:HB2	2.03	0.41
1:B:3072:MET:CE	1:B:3140:LEU:HG	2.51	0.41
1:B:3161:ALA:HA	1:B:3244:SER:OG	2.21	0.41
1:B:3882:GLN:NE2	1:B:3883:GLU:HG3	2.34	0.41
1:B:4052:MET:HE2	1:B:4063:THR:HG23	2.03	0.41
1:C:246:THR:OG1	1:C:247:VAL:N	2.53	0.41
1:C:629:GLN:OE1	1:C:1669:ASN:ND2	2.39	0.41
1:C:674:TYR:CE1	1:C:756:SER:HB2	2.56	0.41
1:C:677:LEU:HD12	1:C:801:ARG:O	2.20	0.41
1:C:2691:LYS:O	1:C:2694:SER:OG	2.35	0.41
1:C:2734:MET:HG2	1:C:2823:PRO:HG2	2.02	0.41
1:C:3016:ARG:HG2	1:C:3017:HIS:NE2	2.35	0.41
1:C:3102:LEU:HD13	1:C:3137:LEU:CD2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3177:LYS:O	1:C:3185:ASN:ND2	2.54	0.41
1:C:3180:ILE:HG13	1:C:3181:TYR:N	2.36	0.41
1:C:4748:MET:N	1:C:4748:MET:SD	2.94	0.41
1:D:882:ARG:HG3	1:D:883:GLU:N	2.36	0.41
1:D:916:PRO:O	1:D:919:VAL:HG22	2.21	0.41
1:D:1979:PHE:CE1	1:D:1988:CYS:HB3	2.52	0.41
1:D:2429:LEU:HD21	1:D:2483:PHE:CE1	2.56	0.41
1:D:2679:ASP:HB2	1:D:2920:ARG:NH1	2.36	0.41
1:D:2689:MET:CE	1:D:2691:LYS:HE2	2.50	0.41
1:D:2833:LEU:HB3	1:D:2837:LEU:HB3	2.01	0.41
1:D:2926:LEU:HD23	1:D:2926:LEU:HA	1.86	0.41
1:D:2979:ARG:NH1	1:D:3039:THR:HA	2.35	0.41
1:D:3016:ARG:HG2	1:D:3017:HIS:NE2	2.35	0.41
1:D:3161:ALA:HA	1:D:3244:SER:OG	2.21	0.41
1:D:3195:LEU:C	1:D:3197:LEU:H	2.23	0.41
1:D:4027:THR:HG21	1:D:4084:VAL:HG11	2.03	0.41
1:D:4795:LYS:HD2	1:D:4795:LYS:HA	1.67	0.41
3:J:118:THR:O	3:J:122:VAL:HG23	2.20	0.41
3:K:16:ALA:HA	3:K:19:LEU:HD12	2.03	0.41
3:K:20:PHE:HA	3:K:22:LYS:NZ	2.36	0.41
1:A:309:MET:HE3	1:A:315:LEU:O	2.21	0.41
1:A:388:GLN:HG3	1:A:388:GLN:O	2.21	0.41
1:A:537:LEU:O	1:A:541:ILE:HG12	2.20	0.41
1:A:885:LEU:O	1:A:889:ILE:HG12	2.21	0.41
1:A:1649:GLU:HG2	1:A:1650:LEU:N	2.36	0.41
1:A:1823:LYS:HB2	1:A:1905:GLN:HE22	1.86	0.41
1:A:2593:VAL:HG12	1:A:2644:LEU:HB2	2.03	0.41
1:A:2679:ASP:HB2	1:A:2920:ARG:NH1	2.36	0.41
1:A:3067:ASP:O	1:A:3071:THR:HG23	2.20	0.41
1:A:3249:TRP:HA	1:A:3252:HIS:HB3	2.01	0.41
1:B:125:TYR:CZ	1:B:417:ARG:HG2	2.55	0.41
1:B:1038:LEU:O	1:B:1043:LYS:HE2	2.20	0.41
1:B:2202:TYR:CE2	1:B:2206:ILE:HD11	2.55	0.41
1:B:3067:ASP:O	1:B:3071:THR:HG23	2.20	0.41
1:B:3164:GLY:CA	1:B:3244:SER:N	2.83	0.41
1:C:439:LYS:HA	1:C:439:LYS:HD3	1.89	0.41
1:C:659:ILE:HD12	1:C:661:LEU:HD11	2.02	0.41
1:C:804:LEU:HD13	1:C:832:LEU:HD21	2.02	0.41
1:C:874:LEU:HD23	1:C:879:GLU:HB3	2.02	0.41
1:C:1033:VAL:HG22	1:C:1034:PRO:HD2	2.02	0.41
1:C:3093:ILE:HD12	1:C:3093:ILE:HA	1.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3160:ALA:HB2	1:C:3240:PRO:HB2	2.02	0.41
1:C:3298:ARG:NH1	3:K:133:GLY:HA3	2.33	0.41
1:C:4267:GLN:O	1:C:4271:VAL:HG23	2.21	0.41
1:D:659:ILE:HD12	1:D:661:LEU:HD11	2.03	0.41
1:D:931:TYR:HA	1:D:934:GLN:OE1	2.21	0.41
1:D:1124:PRO:HD3	1:D:1596:TRP:NE1	2.36	0.41
1:D:2593:VAL:HG12	1:D:2644:LEU:HB2	2.03	0.41
1:D:2898:ILE:HD12	1:D:2898:ILE:HA	1.94	0.41
1:D:3034:HIS:O	1:D:3038:GLN:HG2	2.21	0.41
1:D:3067:ASP:O	1:D:3071:THR:HG23	2.20	0.41
1:D:4748:MET:N	1:D:4748:MET:SD	2.94	0.41
1:A:240:HIS:ND1	1:A:240:HIS:C	2.74	0.41
1:A:903:GLN:HB2	1:A:913:ARG:HG3	2.03	0.41
1:A:2351:ILE:HD11	1:A:2460:PHE:HB2	2.03	0.41
1:A:2619:LYS:O	1:A:2626:GLY:HA2	2.21	0.41
1:A:2689:MET:CE	1:A:2691:LYS:HE2	2.50	0.41
1:A:3164:GLY:HA2	1:A:3247:SER:N	2.36	0.41
1:A:3197:LEU:HA	1:A:3198:PRO:HD3	1.77	0.41
1:A:4740:ALA:HB1	1:B:4780:LEU:HD23	2.03	0.41
2:H:26:HIS:ND1	2:H:105:LEU:HD11	2.36	0.41
1:B:931:TYR:HA	1:B:934:GLN:OE1	2.21	0.41
1:B:2793:ARG:HD3	1:B:2794:GLU:N	2.36	0.41
1:B:3160:ALA:O	1:B:3163:ALA:N	2.52	0.41
1:B:3164:GLY:HA2	1:B:3247:SER:N	2.36	0.41
1:B:3195:LEU:C	1:B:3197:LEU:H	2.23	0.41
1:B:4094:ILE:O	1:B:4098:VAL:HG23	2.20	0.41
1:C:253:GLY:O	1:C:257:ARG:HG2	2.20	0.41
1:C:675:TYR:HB3	1:C:822:CYS:SG	2.60	0.41
1:C:1038:LEU:HD23	1:C:1039:ASP:O	2.20	0.41
1:C:1434:PRO:HA	1:C:1500:ARG:NH1	2.36	0.41
1:C:1552:VAL:HG12	1:C:1553:PHE:HD1	1.86	0.41
1:C:3161:ALA:HA	1:C:3244:SER:OG	2.21	0.41
1:C:3164:GLY:HA2	1:C:3247:SER:N	2.36	0.41
1:C:3587:TRP:HA	1:C:3590:LEU:HD12	2.02	0.41
1:C:4107:GLU:OE1	1:C:4149:TYR:OH	2.20	0.41
1:D:388:GLN:HG3	1:D:388:GLN:O	2.21	0.41
1:D:677:LEU:HD12	1:D:801:ARG:O	2.20	0.41
1:D:1446:ILE:HG12	1:D:1542:ALA:HB2	2.02	0.41
1:D:4257:ARG:O	1:D:4261:LEU:HG	2.21	0.41
3:J:15:GLU:O	3:J:19:LEU:HG	2.21	0.41
3:K:15:GLU:O	3:K:19:LEU:HG	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:90:PHE:HZ	3:K:99:GLY:O	2.04	0.41
1:A:552:SER:HB2	1:A:588:ILE:HD13	2.03	0.41
1:A:606:ARG:NH2	1:A:1632:ILE:HG23	2.36	0.41
1:A:765:SER:HA	1:A:779:PHE:O	2.20	0.41
1:A:882:ARG:HG3	1:A:883:GLU:N	2.36	0.41
1:A:889:ILE:HA	1:A:892:LEU:HB2	2.03	0.41
1:A:1074:ARG:O	1:A:1077:VAL:HG23	2.21	0.41
1:A:1173:MET:HE2	1:A:1173:MET:HB2	1.88	0.41
1:A:1253:LYS:HE2	1:A:1253:LYS:HB2	1.76	0.41
1:A:1434:PRO:HA	1:A:1500:ARG:NH1	2.36	0.41
1:A:1724:GLU:HG2	1:A:2165:LEU:HD23	2.03	0.41
1:A:1760:ARG:NE	1:A:1762:GLN:HE22	2.14	0.41
1:A:2241:ASP:OD2	1:A:2297:ARG:NH2	2.54	0.41
1:A:2691:LYS:O	1:A:2694:SER:OG	2.35	0.41
1:A:2798:MET:HB3	1:B:1498:GLN:HE22	1.86	0.41
1:A:2857:LYS:O	1:A:2861:GLU:OE1	2.39	0.41
1:A:2979:ARG:NH1	1:A:3039:THR:HA	2.35	0.41
1:A:3016:ARG:HG2	1:A:3017:HIS:NE2	2.35	0.41
1:A:3017:HIS:C	1:A:3018:ARG:HD2	2.40	0.41
1:A:3093:ILE:HD12	1:A:3093:ILE:HA	1.89	0.41
1:A:4257:ARG:O	1:A:4261:LEU:HG	2.21	0.41
1:A:4898:PHE:O	1:A:4904:GLY:HA3	2.20	0.41
2:E:26:HIS:ND1	2:E:105:LEU:HD11	2.36	0.41
1:B:555:LEU:HD23	1:B:555:LEU:HA	1.93	0.41
1:B:1033:VAL:HG22	1:B:1034:PRO:HD2	2.02	0.41
1:B:1304:LEU:HD23	1:B:1304:LEU:HA	1.88	0.41
1:B:2065:THR:HG23	1:B:2068:ARG:HH21	1.86	0.41
1:B:2429:LEU:HD21	1:B:2483:PHE:CE1	2.56	0.41
1:B:2619:LYS:O	1:B:2626:GLY:HA2	2.21	0.41
1:B:2679:ASP:HB2	1:B:2920:ARG:NH1	2.36	0.41
1:B:2895:PHE:O	1:B:2898:ILE:HG22	2.19	0.41
1:B:3197:LEU:HA	1:B:3198:PRO:HD3	1.77	0.41
1:B:3587:TRP:HA	1:B:3590:LEU:HD12	2.02	0.41
1:B:3972:MET:HA	1:B:3972:MET:HE2	2.01	0.41
1:B:4806:CYS:HA	1:B:4812:CYS:HB2	2.03	0.41
1:C:23:GLN:HG3	1:C:34:LYS:HD2	2.02	0.41
1:C:370:LEU:CD2	1:C:395:HIS:HB3	2.51	0.41
1:C:500:GLU:HB3	1:C:504:ARG:NH1	2.35	0.41
1:C:807:ARG:HB2	1:C:807:ARG:CZ	2.51	0.41
1:C:916:PRO:O	1:C:919:VAL:HG22	2.21	0.41
1:C:931:TYR:HA	1:C:934:GLN:OE1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1074:ARG:O	1:C:1077:VAL:HG23	2.21	0.41
1:C:1784:LEU:HD22	1:C:1833:ILE:HG13	2.03	0.41
1:C:1889:PRO:HB2	1:C:1890:LYS:H	1.64	0.41
1:C:2150:MET:O	1:C:2156:TYR:OH	2.29	0.41
1:C:2202:TYR:CE2	1:C:2206:ILE:HD11	2.55	0.41
1:C:2222:LEU:HB3	1:C:2264:LYS:HD2	2.03	0.41
1:C:2319:VAL:O	1:C:2323:LEU:HG	2.21	0.41
1:C:2679:ASP:HB2	1:C:2920:ARG:NH1	2.36	0.41
1:C:2689:MET:CE	1:C:2691:LYS:HE2	2.50	0.41
1:C:3000:GLU:HA	1:C:3003:MET:HG2	2.02	0.41
1:C:3033:LEU:O	1:C:3104:MET:HE1	2.21	0.41
1:C:3058:ARG:NH2	1:C:3126:VAL:HB	2.36	0.41
1:C:3127:GLN:HB3	1:C:3183:ILE:HD12	2.02	0.41
1:C:3238:ILE:O	1:C:3241:MET:SD	2.79	0.41
1:C:4027:THR:HG21	1:C:4084:VAL:HG11	2.03	0.41
1:D:23:GLN:HG3	1:D:34:LYS:HD2	2.02	0.41
1:D:889:ILE:HA	1:D:892:LEU:HB2	2.03	0.41
1:D:1552:VAL:HG12	1:D:1553:PHE:HD1	1.86	0.41
1:D:1649:GLU:HG2	1:D:1650:LEU:N	2.36	0.41
1:D:1784:LEU:HD22	1:D:1833:ILE:HG13	2.03	0.41
1:D:1890:LYS:HA	1:D:1890:LYS:HD2	1.82	0.41
1:D:2150:MET:O	1:D:2156:TYR:OH	2.29	0.41
1:D:2172:MET:O	1:D:2176:VAL:N	2.43	0.41
1:D:2277:CYS:HB3	1:D:2280:LEU:HB2	2.02	0.41
1:D:2734:MET:HE1	1:D:2825:ALA:H	1.86	0.41
1:D:3072:MET:CE	1:D:3140:LEU:HG	2.51	0.41
1:D:3192:ARG:HD2	1:D:3197:LEU:HD13	2.03	0.41
1:D:3587:TRP:HA	1:D:3590:LEU:HD12	2.02	0.41
1:D:4011:GLU:HG3	1:D:4015:LYS:HZ2	1.85	0.41
1:D:4898:PHE:O	1:D:4904:GLY:HA3	2.20	0.41
3:J:20:PHE:HA	3:J:22:LYS:NZ	2.36	0.41
3:J:90:PHE:HZ	3:J:99:GLY:O	2.04	0.41
3:J:123:ASP:O	3:J:127:ARG:HG2	2.19	0.41
3:L:90:PHE:HZ	3:L:99:GLY:O	2.04	0.41
1:A:1124:PRO:HD3	1:A:1596:TRP:NE1	2.36	0.41
1:A:2573:LEU:HD12	1:A:2573:LEU:HA	1.93	0.41
1:A:3058:ARG:NH2	1:A:3126:VAL:HB	2.36	0.41
1:A:3160:ALA:HB1	1:A:3302:PHE:CZ	2.56	0.41
1:A:3796:LEU:HD22	1:A:3835:PHE:HZ	1.86	0.41
2:F:26:HIS:ND1	2:F:105:LEU:HD11	2.36	0.41
1:B:233:VAL:HG12	1:B:274:LEU:HD22	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:246:THR:OG1	1:B:247:VAL:N	2.53	0.41
1:B:606:ARG:NH2	1:B:1632:ILE:HG23	2.36	0.41
1:B:799:LYS:NZ	1:B:1620:GLN:OE1	2.54	0.41
1:B:882:ARG:HG3	1:B:883:GLU:N	2.36	0.41
1:B:1446:ILE:HG12	1:B:1542:ALA:HB2	2.02	0.41
1:B:1538:LYS:HD2	1:B:1636:ASN:ND2	2.36	0.41
1:B:2222:LEU:HB3	1:B:2264:LYS:HD2	2.03	0.41
1:B:2241:ASP:OD2	1:B:2297:ARG:NH2	2.54	0.41
1:B:3165:ALA:HA	1:B:3247:SER:C	2.42	0.41
1:B:3260:ARG:NH2	1:B:3264:CYS:SG	2.94	0.41
1:B:4257:ARG:O	1:B:4261:LEU:HG	2.21	0.41
1:C:799:LYS:NZ	1:C:1620:GLN:OE1	2.54	0.41
1:C:891:GLU:O	1:C:894:VAL:HG22	2.21	0.41
1:C:2429:LEU:HD21	1:C:2483:PHE:CE1	2.56	0.41
1:C:2857:LYS:O	1:C:2861:GLU:OE1	2.39	0.41
1:D:253:GLY:O	1:D:257:ARG:HG2	2.20	0.41
1:D:1823:LYS:HB2	1:D:1905:GLN:HE22	1.86	0.41
1:D:1894:LEU:HD22	1:D:2065:THR:HG21	2.02	0.41
1:D:1940:GLN:OE1	1:D:3608:LEU:HB3	2.21	0.41
1:D:2065:THR:HG23	1:D:2068:ARG:HH21	1.86	0.41
1:D:2319:VAL:O	1:D:2323:LEU:HG	2.21	0.41
1:D:3968:LEU:O	1:D:3972:MET:HG2	2.21	0.41
3:L:118:THR:O	3:L:122:VAL:HG23	2.20	0.41
1:A:623:VAL:HA	1:A:2131:SER:O	2.22	0.40
1:A:659:ILE:HD12	1:A:661:LEU:HD11	2.02	0.40
1:A:891:GLU:O	1:A:894:VAL:HG22	2.21	0.40
1:A:2214:MET:HE2	1:A:2214:MET:CA	2.50	0.40
1:A:2466:ALA:HB2	1:A:2519:TYR:HD1	1.86	0.40
1:A:2734:MET:HE1	1:A:2825:ALA:N	2.36	0.40
1:A:3102:LEU:HD13	1:A:3137:LEU:CD2	2.51	0.40
3:I:118:THR:O	3:I:122:VAL:HG23	2.20	0.40
1:B:309:MET:HE3	1:B:315:LEU:O	2.21	0.40
1:B:370:LEU:CD2	1:B:395:HIS:HB3	2.51	0.40
1:B:459:LEU:HD23	1:B:459:LEU:HA	1.94	0.40
1:B:480:ARG:NH2	1:B:3678:GLU:OE2	2.55	0.40
1:B:1799:VAL:HG12	1:B:1890:LYS:NZ	2.36	0.40
1:B:2322:ARG:HH22	1:B:2415:GLU:CD	2.24	0.40
1:B:2824:ARG:NH2	1:C:1503:ASN:HB2	2.35	0.40
1:B:3014:LEU:O	1:B:3018:ARG:HD3	2.22	0.40
1:B:3238:ILE:O	1:B:3241:MET:SD	2.79	0.40
1:C:233:VAL:HG12	1:C:274:LEU:HD22	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1444:GLY:HA3	1:C:1487:MET:HG2	2.02	0.40
1:D:575:LEU:O	1:D:579:LEU:HG	2.21	0.40
1:D:1724:GLU:HG2	1:D:2165:LEU:HD23	2.03	0.40
1:D:2104:LYS:NZ	1:D:2164:ALA:O	2.47	0.40
1:D:2241:ASP:OD2	1:D:2297:ARG:NH2	2.54	0.40
1:D:2252:GLU:OE1	1:D:2252:GLU:N	2.39	0.40
1:D:2857:LYS:O	1:D:2861:GLU:OE1	2.39	0.40
1:D:3163:ALA:CA	1:D:3241:MET:O	2.70	0.40
1:D:3165:ALA:HA	1:D:3247:SER:C	2.42	0.40
1:D:4269:LYS:HA	1:D:4269:LYS:HD3	1.90	0.40
1:D:4491:LEU:HD23	1:D:4491:LEU:HA	1.97	0.40
1:A:253:GLY:O	1:A:257:ARG:HG2	2.20	0.40
1:A:807:ARG:HB2	1:A:807:ARG:CZ	2.51	0.40
1:A:931:TYR:HA	1:A:934:GLN:OE1	2.21	0.40
1:A:2518:ARG:O	1:A:2522:THR:OG1	2.27	0.40
1:A:3034:HIS:O	1:A:3038:GLN:HG2	2.21	0.40
1:A:3968:LEU:O	1:A:3972:MET:HG2	2.21	0.40
1:A:4854:VAL:HA	1:A:4858:LEU:HD12	2.04	0.40
1:B:291:TRP:CD1	1:B:353:GLU:HB3	2.57	0.40
1:B:874:LEU:HD23	1:B:879:GLU:HB3	2.01	0.40
1:B:2077:ASP:OD2	1:B:2080:LEU:N	2.52	0.40
1:B:2556:SER:HB3	1:B:2569:ILE:HG21	2.03	0.40
1:B:3156:GLY:HA2	1:B:3237:VAL:HG13	2.03	0.40
1:B:3163:ALA:CA	1:B:3241:MET:O	2.70	0.40
1:B:4267:GLN:O	1:B:4271:VAL:HG23	2.21	0.40
1:C:174:LYS:HE2	1:C:174:LYS:HB2	1.96	0.40
1:C:318:ASP:O	1:C:322:ALA:HB2	2.22	0.40
1:C:718:VAL:HG23	1:C:793:SER:HB3	2.02	0.40
1:C:992:GLN:O	1:C:996:VAL:HG23	2.22	0.40
1:C:1446:ILE:HG12	1:C:1542:ALA:HB2	2.02	0.40
1:C:1799:VAL:HG12	1:C:1890:LYS:NZ	2.36	0.40
1:C:2065:THR:HG23	1:C:2068:ARG:HH21	1.86	0.40
1:C:2241:ASP:OD2	1:C:2297:ARG:NH2	2.54	0.40
1:C:3192:ARG:HD2	1:C:3197:LEU:HD13	2.03	0.40
1:C:3312:PRO:O	1:C:3315:LEU:HB2	2.22	0.40
1:C:4710:LEU:HD23	1:C:4710:LEU:HA	1.96	0.40
1:D:480:ARG:NH2	1:D:3678:GLU:OE2	2.55	0.40
3:J:30:THR:HG22	3:J:53:ILE:HD12	2.02	0.40
3:L:20:PHE:HA	3:L:22:LYS:NZ	2.36	0.40
1:A:480:ARG:NH2	1:A:3678:GLU:OE2	2.55	0.40
1:A:633:CYS:SG	1:A:637:LEU:HD12	2.62	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1592:SER:OG	1:A:1594:VAL:HG12	2.22	0.40
1:A:1788:LYS:HD3	1:A:1833:ILE:HG22	2.04	0.40
1:A:3161:ALA:HA	1:A:3244:SER:OG	2.21	0.40
1:A:3163:ALA:CA	1:A:3241:MET:O	2.70	0.40
1:A:3592:SER:O	1:A:3596:LYS:HG2	2.22	0.40
1:A:4052:MET:HE2	1:A:4063:THR:HG23	2.03	0.40
1:A:4267:GLN:O	1:A:4271:VAL:HG23	2.21	0.40
3:I:15:GLU:O	3:I:19:LEU:HG	2.21	0.40
3:I:20:PHE:HA	3:I:22:LYS:NZ	2.36	0.40
1:B:75:VAL:HG12	1:B:79:GLN:NE2	2.20	0.40
1:B:1167:ASP:HB3	1:B:1172:THR:HG23	2.04	0.40
1:B:1894:LEU:HD22	1:B:2065:THR:HG21	2.02	0.40
1:C:234:LEU:HD13	1:C:405:LEU:HD22	2.02	0.40
1:C:606:ARG:NH2	1:C:1632:ILE:HG23	2.36	0.40
1:C:964:MET:O	1:C:977:LYS:NZ	2.44	0.40
1:C:2434:GLY:O	1:C:2438:ILE:HG13	2.22	0.40
1:C:2466:ALA:HB2	1:C:2519:TYR:HD1	1.86	0.40
1:C:3014:LEU:O	1:C:3018:ARG:HD3	2.22	0.40
1:C:3156:GLY:HA2	1:C:3237:VAL:HG13	2.03	0.40
1:C:3592:SER:O	1:C:3596:LYS:HG2	2.22	0.40
1:C:3604:ARG:CA	3:K:52:MET:HE3	2.47	0.40
1:D:309:MET:HE3	1:D:315:LEU:O	2.21	0.40
1:D:799:LYS:NZ	1:D:1620:GLN:OE1	2.54	0.40
1:D:807:ARG:HB2	1:D:807:ARG:CZ	2.51	0.40
1:D:1444:GLY:HA3	1:D:1487:MET:HG2	2.02	0.40
1:D:1592:SER:OG	1:D:1594:VAL:HG12	2.22	0.40
1:D:2434:GLY:O	1:D:2438:ILE:HG13	2.22	0.40
1:D:2619:LYS:O	1:D:2626:GLY:HA2	2.21	0.40
1:D:2999:LYS:O	1:D:3002:GLU:HG3	2.21	0.40
1:D:3014:LEU:O	1:D:3018:ARG:HD3	2.22	0.40
1:D:3160:ALA:HB2	1:D:3240:PRO:HB2	2.02	0.40
1:D:3160:ALA:HB1	1:D:3302:PHE:CZ	2.56	0.40
1:D:3177:LYS:O	1:D:3185:ASN:ND2	2.54	0.40
3:K:107:ARG:H	3:K:107:ARG:HG2	1.75	0.40
1:A:1145:TRP:CE2	1:A:1149:ASN:HB3	2.57	0.40
1:A:1167:ASP:HB3	1:A:1172:THR:HG23	2.04	0.40
1:A:1890:LYS:HA	1:A:1890:LYS:HD2	1.82	0.40
1:A:2658:GLU:OE1	1:A:2661:LEU:N	2.33	0.40
1:A:2734:MET:HG2	1:A:2823:PRO:HG2	2.02	0.40
1:A:2754:GLN:HG2	1:A:2756:LEU:HB2	2.04	0.40
1:A:3033:LEU:O	1:A:3104:MET:HE1	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3177:LYS:O	1:A:3185:ASN:ND2	2.54	0.40
1:A:4860:ALA:HB2	1:D:4863:GLN:HG2	2.04	0.40
2:G:26:HIS:ND1	2:G:105:LEU:HD11	2.36	0.40
1:B:374:TYR:CD1	1:B:376:SER:HB3	2.57	0.40
1:B:575:LEU:O	1:B:579:LEU:HG	2.21	0.40
1:B:608:HIS:HB2	1:B:1656:HIS:ND1	2.37	0.40
1:B:659:ILE:HD12	1:B:661:LEU:HD11	2.02	0.40
1:B:674:TYR:CE1	1:B:756:SER:HB2	2.56	0.40
1:B:1074:ARG:O	1:B:1077:VAL:HG23	2.21	0.40
1:B:1788:LYS:HD3	1:B:1833:ILE:HG22	2.04	0.40
1:B:2466:ALA:HB2	1:B:2519:TYR:HD1	1.86	0.40
1:B:2591:ARG:HA	1:B:2594:PHE:CE1	2.57	0.40
1:B:2857:LYS:O	1:B:2861:GLU:OE1	2.39	0.40
1:B:3583:LYS:HD2	3:J:128:GLU:HB3	2.03	0.40
1:B:3982:LEU:HB3	1:B:3999:MET:HE1	2.03	0.40
1:B:4943:MET:O	1:B:4946:GLU:HG2	2.22	0.40
1:C:674:TYR:HE1	1:C:756:SER:HB2	1.86	0.40
1:C:882:ARG:HG3	1:C:883:GLU:N	2.36	0.40
1:C:1016:TRP:HA	1:C:1027:ARG:HB3	2.04	0.40
1:C:2322:ARG:HH22	1:C:2415:GLU:CD	2.24	0.40
1:C:3034:HIS:O	1:C:3038:GLN:HG2	2.21	0.40
1:C:3162:PHE:O	1:C:3244:SER:C	2.60	0.40
1:C:3163:ALA:CA	1:C:3241:MET:O	2.70	0.40
1:C:4084:VAL:O	1:C:4088:HIS:HB2	2.22	0.40
1:C:4690:LYS:HG2	1:C:4692:SER:H	1.87	0.40
1:D:233:VAL:HG12	1:D:274:LEU:HD22	2.03	0.40
1:D:291:TRP:CD1	1:D:353:GLU:HB3	2.57	0.40
1:D:992:GLN:O	1:D:996:VAL:HG23	2.22	0.40
1:D:1014:GLN:HB3	1:D:1027:ARG:HH21	1.84	0.40
1:D:1074:ARG:O	1:D:1077:VAL:HG23	2.21	0.40
1:D:3000:GLU:HA	1:D:3003:MET:HG2	2.02	0.40
1:D:3112:ILE:HD11	1:D:3118:GLY:HA2	2.04	0.40
1:D:3312:PRO:O	1:D:3315:LEU:HB2	2.22	0.40
1:D:4249:ARG:O	1:D:4253:LEU:HG	2.22	0.40
3:J:108:HIS:CE1	3:J:112:ASN:HD21	2.40	0.40
3:J:126:ILE:O	3:J:130:ASP:HB2	2.22	0.40
3:L:108:HIS:CE1	3:L:112:ASN:HD21	2.40	0.40
1:A:233:VAL:HG12	1:A:274:LEU:HD22	2.03	0.40
1:A:238:HIS:CG	1:A:239:GLY:N	2.90	0.40
1:A:1979:PHE:CE1	1:A:1988:CYS:HB3	2.51	0.40
1:A:2793:ARG:HD3	1:A:2794:GLU:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3924:ILE:HG21	1:A:3935:LEU:HD22	2.04	0.40
1:A:4249:ARG:O	1:A:4253:LEU:HG	2.22	0.40
1:B:1299:ILE:HD13	1:B:1457:PHE:HB3	2.04	0.40
1:B:2447:LYS:HD3	1:B:2447:LYS:HA	1.91	0.40
1:B:2634:SER:O	1:B:2635:GLU:HB3	2.22	0.40
1:B:2734:MET:HG2	1:B:2823:PRO:HG2	2.02	0.40
1:B:3034:HIS:O	1:B:3038:GLN:HG2	2.21	0.40
1:B:3127:GLN:HB3	1:B:3183:ILE:HD12	2.02	0.40
1:B:3968:LEU:O	1:B:3972:MET:HG2	2.21	0.40
1:C:309:MET:HE3	1:C:315:LEU:O	2.21	0.40
1:C:1041:ARG:HA	1:C:1044:LYS:HZ3	1.84	0.40
1:C:1167:ASP:HB3	1:C:1172:THR:HG23	2.03	0.40
1:C:2170:THR:O	1:C:2174:VAL:HG13	2.22	0.40
1:C:2556:SER:HB3	1:C:2569:ILE:HG21	2.03	0.40
1:C:2581:ARG:HG3	1:C:2584:MET:HG2	2.04	0.40
1:C:3596:LYS:HE2	3:K:19:LEU:HB3	2.03	0.40
1:C:3833:ASP:OD1	1:C:3908:LYS:HB3	2.22	0.40
1:D:318:ASP:O	1:D:322:ALA:HB2	2.22	0.40
1:D:623:VAL:HA	1:D:2131:SER:O	2.22	0.40
1:D:674:TYR:CE1	1:D:756:SER:HB2	2.56	0.40
1:D:1033:VAL:HG22	1:D:1034:PRO:HD2	2.03	0.40
1:D:2581:ARG:HG3	1:D:2584:MET:HG2	2.04	0.40
1:D:2706:VAL:HG12	1:D:2847:ASN:HD21	1.87	0.40
1:D:3965:ILE:HD13	1:D:3965:ILE:HA	1.94	0.40
3:J:16:ALA:HA	3:J:19:LEU:HD12	2.03	0.40
3:K:108:HIS:CE1	3:K:112:ASN:HD21	2.40	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	4206/4967 (85%)	4072 (97%)	130 (3%)	4 (0%)	48	78
1	B	4206/4967 (85%)	4072 (97%)	130 (3%)	4 (0%)	48	78
1	C	4206/4967 (85%)	4074 (97%)	128 (3%)	4 (0%)	48	78
1	D	4206/4967 (85%)	4073 (97%)	129 (3%)	4 (0%)	48	78
2	E	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
2	F	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
2	G	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
2	H	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
3	I	141/149 (95%)	136 (96%)	5 (4%)	0	100	100
3	J	141/149 (95%)	136 (96%)	5 (4%)	0	100	100
3	K	141/149 (95%)	136 (96%)	5 (4%)	0	100	100
3	L	141/149 (95%)	136 (96%)	5 (4%)	0	100	100
All	All	17808/20896 (85%)	17243 (97%)	549 (3%)	16 (0%)	50	78

All (16) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	2793	ARG
1	A	2988	ARG
1	A	3927	PRO
1	A	4641	PRO
1	B	2793	ARG
1	B	2988	ARG
1	B	3927	PRO
1	B	4641	PRO
1	C	2793	ARG
1	C	2988	ARG
1	C	3927	PRO
1	C	4641	PRO
1	D	2793	ARG
1	D	2988	ARG
1	D	3927	PRO
1	D	4641	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	3716/4358 (85%)	3663 (99%)	53 (1%)	62	79
1	B	3716/4358 (85%)	3663 (99%)	53 (1%)	62	79
1	C	3716/4358 (85%)	3663 (99%)	53 (1%)	62	79
1	D	3716/4358 (85%)	3663 (99%)	53 (1%)	62	79
2	E	88/89 (99%)	86 (98%)	2 (2%)	45	68
2	F	88/89 (99%)	86 (98%)	2 (2%)	45	68
2	G	88/89 (99%)	86 (98%)	2 (2%)	45	68
2	H	88/89 (99%)	86 (98%)	2 (2%)	45	68
3	I	123/127 (97%)	113 (92%)	10 (8%)	9	31
3	J	123/127 (97%)	113 (92%)	10 (8%)	9	31
3	K	123/127 (97%)	113 (92%)	10 (8%)	9	31
3	L	123/127 (97%)	113 (92%)	10 (8%)	9	31
All	All	15708/18296 (86%)	15448 (98%)	260 (2%)	56	76

All (260) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	176	ARG
1	A	240	HIS
1	A	309	MET
1	A	399	MET
1	A	494	MET
1	A	807	ARG
1	A	880	ARG
1	A	944	LEU
1	A	1044	LYS
1	A	1063	ASN
1	A	1174	MET
1	A	1414	ARG
1	A	1473	LYS
1	A	1599	MET
1	A	1729	MET
1	A	1761	MET
1	A	1762	GLN
1	A	1953	MET
1	A	2192	MET

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Mol	Chain	Res	Type
1	A	2214	MET
1	A	2303	ARG
1	A	2456	MET
1	A	2689	MET
1	A	2712	THR
1	A	2736	LYS
1	A	2737	LEU
1	A	2743	TYR
1	A	2793	ARG
1	A	2835	ARG
1	A	2843	MET
1	A	2844	MET
1	A	2884	LYS
1	A	2931	ARG
1	A	3138	TYR
1	A	3211	LEU
1	A	3241	MET
1	A	3299	LEU
1	A	3313	GLN
1	A	3323	MET
1	A	3327	LYS
1	A	3583	LYS
1	A	3584	LYS
1	A	3589	LYS
1	A	4040	LYS
1	A	4067	LEU
1	A	4266	LYS
1	A	4521	LYS
1	A	4728	MET
1	A	4753	LEU
1	A	4809	MET
1	A	4814	MET
1	A	4884	MET
1	A	4963	GLU
2	E	19	LYS
2	E	58	LYS
2	F	19	LYS
2	F	58	LYS
2	G	19	LYS
2	G	58	LYS
2	H	19	LYS
2	H	58	LYS

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Mol	Chain	Res	Type
3	I	22	LYS
3	I	77	MET
3	I	105	GLU
3	I	107	ARG
3	I	125	MET
3	I	126	ILE
3	I	128	GLU
3	I	130	ASP
3	I	145	MET
3	I	146	MET
1	B	176	ARG
1	B	240	HIS
1	B	309	MET
1	B	399	MET
1	B	494	MET
1	B	807	ARG
1	B	880	ARG
1	B	944	LEU
1	B	1044	LYS
1	B	1063	ASN
1	B	1174	MET
1	B	1414	ARG
1	B	1473	LYS
1	B	1599	MET
1	B	1729	MET
1	B	1761	MET
1	B	1762	GLN
1	B	1953	MET
1	B	2192	MET
1	B	2214	MET
1	B	2303	ARG
1	B	2456	MET
1	B	2689	MET
1	B	2712	THR
1	B	2736	LYS
1	B	2737	LEU
1	B	2743	TYR
1	B	2793	ARG
1	B	2835	ARG
1	B	2843	MET
1	B	2844	MET
1	B	2884	LYS

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Mol	Chain	Res	Type
1	B	2931	ARG
1	B	3138	TYR
1	B	3211	LEU
1	B	3241	MET
1	B	3299	LEU
1	B	3313	GLN
1	B	3323	MET
1	B	3327	LYS
1	B	3583	LYS
1	B	3584	LYS
1	B	3589	LYS
1	B	4040	LYS
1	B	4067	LEU
1	B	4266	LYS
1	B	4521	LYS
1	B	4728	MET
1	B	4753	LEU
1	B	4809	MET
1	B	4814	MET
1	B	4884	MET
1	B	4963	GLU
1	C	176	ARG
1	C	240	HIS
1	C	309	MET
1	C	399	MET
1	C	494	MET
1	C	807	ARG
1	C	880	ARG
1	C	944	LEU
1	C	1044	LYS
1	C	1063	ASN
1	C	1174	MET
1	C	1414	ARG
1	C	1473	LYS
1	C	1599	MET
1	C	1729	MET
1	C	1761	MET
1	C	1762	GLN
1	C	1953	MET
1	C	2192	MET
1	C	2214	MET
1	C	2303	ARG

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Mol	Chain	Res	Type
1	C	2456	MET
1	C	2689	MET
1	C	2712	THR
1	C	2736	LYS
1	C	2737	LEU
1	C	2743	TYR
1	C	2793	ARG
1	C	2835	ARG
1	C	2843	MET
1	C	2844	MET
1	C	2884	LYS
1	C	2931	ARG
1	C	3138	TYR
1	C	3211	LEU
1	C	3241	MET
1	C	3299	LEU
1	C	3313	GLN
1	C	3323	MET
1	C	3327	LYS
1	C	3583	LYS
1	C	3584	LYS
1	C	3589	LYS
1	C	4040	LYS
1	C	4067	LEU
1	C	4266	LYS
1	C	4521	LYS
1	C	4728	MET
1	C	4753	LEU
1	C	4809	MET
1	C	4814	MET
1	C	4884	MET
1	C	4963	GLU
1	D	176	ARG
1	D	240	HIS
1	D	309	MET
1	D	399	MET
1	D	494	MET
1	D	807	ARG
1	D	880	ARG
1	D	944	LEU
1	D	1044	LYS
1	D	1063	ASN

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Mol	Chain	Res	Type
1	D	1174	MET
1	D	1414	ARG
1	D	1473	LYS
1	D	1599	MET
1	D	1729	MET
1	D	1761	MET
1	D	1762	GLN
1	D	1953	MET
1	D	2192	MET
1	D	2214	MET
1	D	2303	ARG
1	D	2456	MET
1	D	2689	MET
1	D	2712	THR
1	D	2736	LYS
1	D	2737	LEU
1	D	2743	TYR
1	D	2793	ARG
1	D	2835	ARG
1	D	2843	MET
1	D	2844	MET
1	D	2884	LYS
1	D	2931	ARG
1	D	3138	TYR
1	D	3211	LEU
1	D	3241	MET
1	D	3299	LEU
1	D	3313	GLN
1	D	3323	MET
1	D	3327	LYS
1	D	3583	LYS
1	D	3584	LYS
1	D	3589	LYS
1	D	4040	LYS
1	D	4067	LEU
1	D	4266	LYS
1	D	4521	LYS
1	D	4728	MET
1	D	4753	LEU
1	D	4809	MET
1	D	4814	MET
1	D	4884	MET

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Mol	Chain	Res	Type
1	D	4963	GLU
3	J	22	LYS
3	J	77	MET
3	J	105	GLU
3	J	107	ARG
3	J	125	MET
3	J	126	ILE
3	J	128	GLU
3	J	130	ASP
3	J	145	MET
3	J	146	MET
3	L	22	LYS
3	L	77	MET
3	L	105	GLU
3	L	107	ARG
3	L	125	MET
3	L	126	ILE
3	L	128	GLU
3	L	130	ASP
3	L	145	MET
3	L	146	MET
3	K	22	LYS
3	K	77	MET
3	K	105	GLU
3	K	107	ARG
3	K	125	MET
3	K	126	ILE
3	K	128	GLU
3	K	130	ASP
3	K	145	MET
3	K	146	MET

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

Mol	Chain	Res	Type
1	A	79	GLN
1	A	992	GLN
1	A	1069	GLN
1	A	1656	HIS
1	A	1722	ASN
1	A	2309	ASN
1	A	2847	ASN

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Mol	Chain	Res	Type
1	A	2927	GLN
1	A	2938	GLN
1	A	2978	HIS
1	A	3111	HIS
1	A	3179	ASN
1	A	3850	HIS
1	A	3925	GLN
1	B	79	GLN
1	B	992	GLN
1	B	1069	GLN
1	B	1656	HIS
1	B	1722	ASN
1	B	2309	ASN
1	B	2847	ASN
1	B	2927	GLN
1	B	2938	GLN
1	B	2978	HIS
1	B	3111	HIS
1	B	3179	ASN
1	B	3850	HIS
1	B	3925	GLN
1	C	79	GLN
1	C	992	GLN
1	C	1069	GLN
1	C	1656	HIS
1	C	1722	ASN
1	C	2309	ASN
1	C	2847	ASN
1	C	2927	GLN
1	C	2938	GLN
1	C	2978	HIS
1	C	3111	HIS
1	C	3179	ASN
1	C	3850	HIS
1	C	3925	GLN
1	C	4863	GLN
1	D	79	GLN
1	D	992	GLN
1	D	1069	GLN
1	D	1656	HIS
1	D	1722	ASN
1	D	2309	ASN

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Mol	Chain	Res	Type
1	D	2847	ASN
1	D	2927	GLN
1	D	2938	GLN
1	D	2978	HIS
1	D	3111	HIS
1	D	3179	ASN
1	D	3850	HIS
1	D	3925	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 32 ligands modelled in this entry, 24 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	$\# Z > 2$
5	ATP	B	5004	-	28,33,33	0.62	0	34,52,52	0.59	1 (2%)
5	ATP	D	5004	-	28,33,33	0.62	0	34,52,52	0.60	1 (2%)
5	ATP	B	5002	-	28,33,33	0.63	0	34,52,52	0.60	1 (2%)
5	ATP	A	5004	-	28,33,33	0.62	0	34,52,52	0.60	1 (2%)
5	ATP	D	5002	-	28,33,33	0.63	0	34,52,52	0.60	1 (2%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
5	ATP	C	5004	-	28,33,33	0.63	0	34,52,52	0.60	1 (2%)
5	ATP	C	5002	-	28,33,33	0.62	0	34,52,52	0.61	1 (2%)
5	ATP	A	5002	-	28,33,33	0.62	0	34,52,52	0.60	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
5	ATP	B	5004	-	-	7/18/38/38	0/3/3/3
5	ATP	D	5004	-	-	7/18/38/38	0/3/3/3
5	ATP	B	5002	-	-	8/18/38/38	0/3/3/3
5	ATP	A	5004	-	-	7/18/38/38	0/3/3/3
5	ATP	D	5002	-	-	8/18/38/38	0/3/3/3
5	ATP	C	5004	-	-	7/18/38/38	0/3/3/3
5	ATP	C	5002	-	-	8/18/38/38	0/3/3/3
5	ATP	A	5002	-	-	8/18/38/38	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(°)
5	C	5004	ATP	C5-C6-N6	2.37	123.93	120.31
5	C	5002	ATP	C5-C6-N6	2.37	123.92	120.31
5	D	5004	ATP	C5-C6-N6	2.35	123.89	120.31
5	A	5004	ATP	C5-C6-N6	2.34	123.88	120.31
5	B	5002	ATP	C5-C6-N6	2.33	123.86	120.31
5	A	5002	ATP	C5-C6-N6	2.33	123.85	120.31
5	B	5004	ATP	C5-C6-N6	2.33	123.85	120.31
5	D	5002	ATP	C5-C6-N6	2.32	123.85	120.31

There are no chirality outliers.

All (60) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	A	5002	ATP	PB-O3A-PA-O5'
5	A	5004	ATP	PB-O3A-PA-O5'

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Mol	Chain	Res	Type	Atoms
5	B	5002	ATP	PB-O3A-PA-O5'
5	B	5004	ATP	PB-O3A-PA-O5'
5	C	5002	ATP	PB-O3A-PA-O5'
5	C	5004	ATP	PB-O3A-PA-O5'
5	D	5002	ATP	PB-O3A-PA-O5'
5	D	5004	ATP	PB-O3A-PA-O5'
5	A	5002	ATP	C3'-C4'-C5'-O5'
5	B	5002	ATP	C3'-C4'-C5'-O5'
5	C	5002	ATP	C3'-C4'-C5'-O5'
5	D	5002	ATP	C3'-C4'-C5'-O5'
5	A	5002	ATP	O4'-C4'-C5'-O5'
5	B	5002	ATP	O4'-C4'-C5'-O5'
5	C	5002	ATP	O4'-C4'-C5'-O5'
5	D	5002	ATP	O4'-C4'-C5'-O5'
5	A	5002	ATP	PG-O3B-PB-O3A
5	B	5002	ATP	PG-O3B-PB-O3A
5	C	5002	ATP	PG-O3B-PB-O3A
5	D	5002	ATP	PG-O3B-PB-O3A
5	A	5004	ATP	PB-O3B-PG-O3G
5	B	5004	ATP	PB-O3B-PG-O3G
5	C	5004	ATP	PB-O3B-PG-O3G
5	D	5004	ATP	PB-O3B-PG-O3G
5	A	5004	ATP	PG-O3B-PB-O2B
5	B	5004	ATP	PG-O3B-PB-O2B
5	C	5004	ATP	PG-O3B-PB-O2B
5	D	5004	ATP	PG-O3B-PB-O2B
5	A	5004	ATP	PB-O3B-PG-O2G
5	B	5004	ATP	PB-O3B-PG-O2G
5	C	5004	ATP	PB-O3B-PG-O2G
5	D	5004	ATP	PB-O3B-PG-O2G
5	A	5004	ATP	O4'-C4'-C5'-O5'
5	B	5004	ATP	O4'-C4'-C5'-O5'
5	C	5004	ATP	O4'-C4'-C5'-O5'
5	D	5004	ATP	O4'-C4'-C5'-O5'
5	A	5004	ATP	PB-O3B-PG-O1G
5	B	5004	ATP	PB-O3B-PG-O1G
5	C	5004	ATP	PB-O3B-PG-O1G
5	D	5004	ATP	PB-O3B-PG-O1G
5	A	5002	ATP	PG-O3B-PB-O1B
5	A	5002	ATP	PG-O3B-PB-O2B
5	A	5002	ATP	PB-O3A-PA-O1A
5	A	5002	ATP	PB-O3A-PA-O2A

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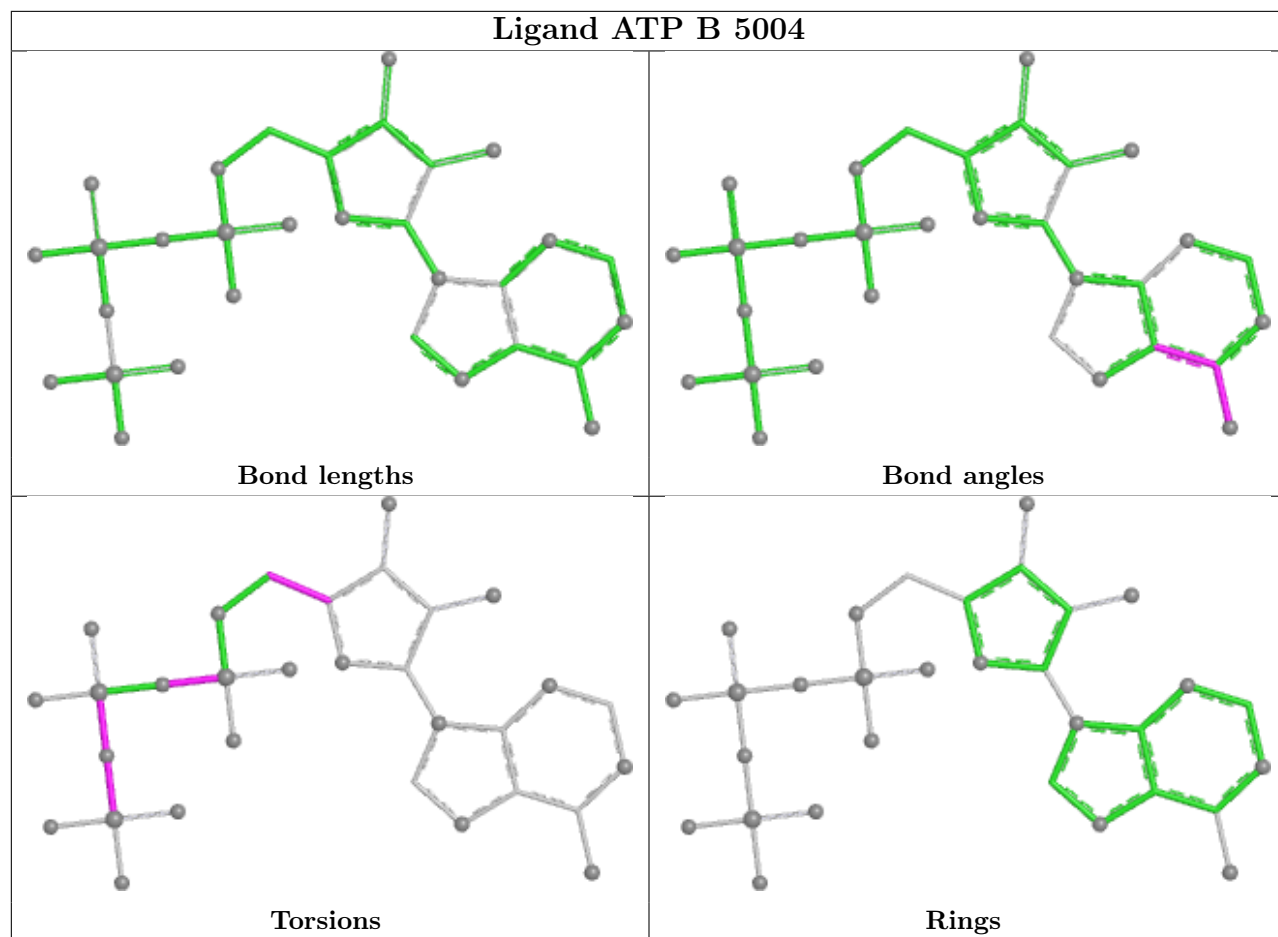
Continued from previous page...

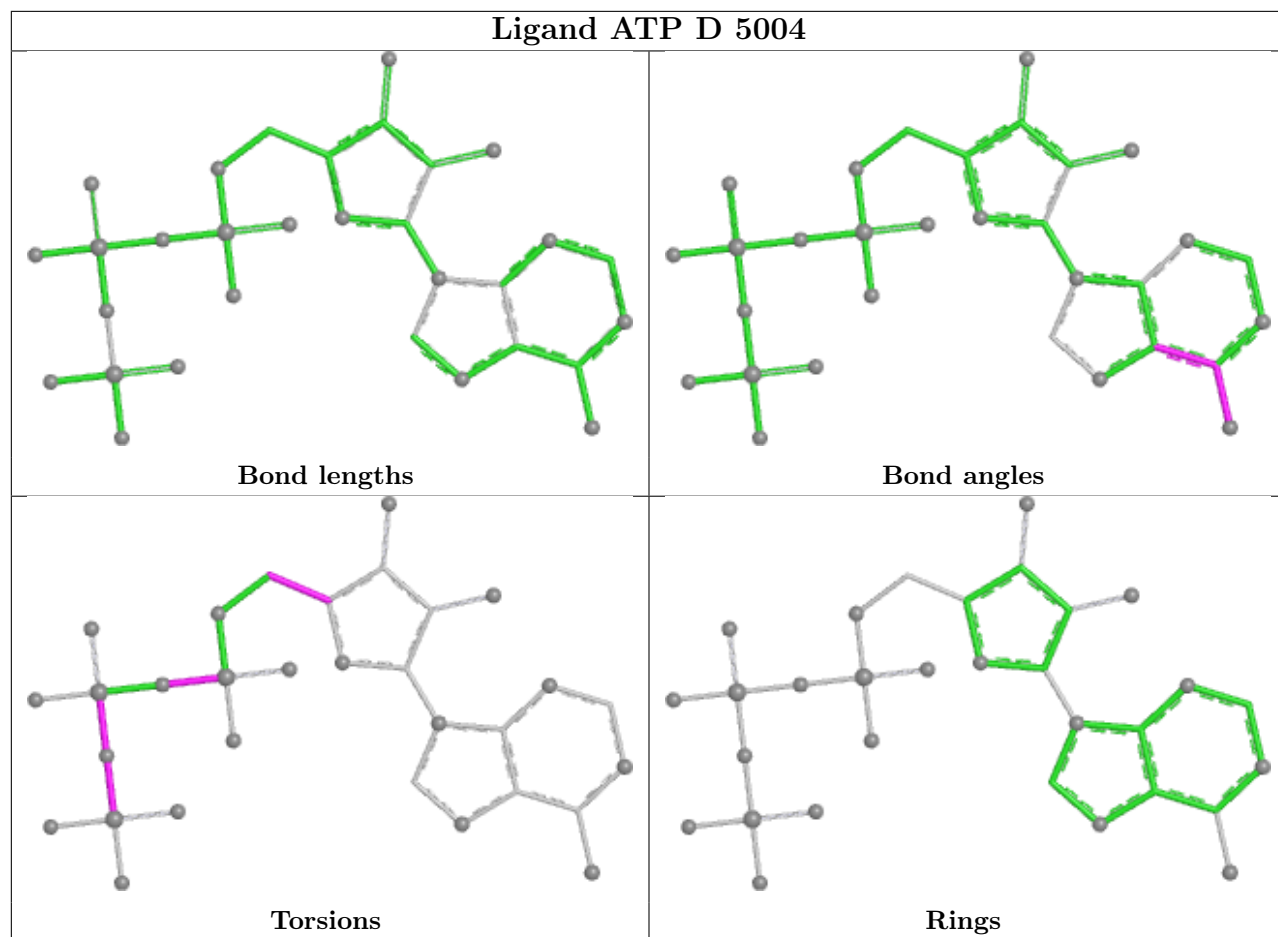
Mol	Chain	Res	Type	Atoms
5	A	5004	ATP	PG-O3B-PB-O1B
5	B	5002	ATP	PG-O3B-PB-O1B
5	B	5002	ATP	PG-O3B-PB-O2B
5	B	5002	ATP	PB-O3A-PA-O1A
5	B	5002	ATP	PB-O3A-PA-O2A
5	B	5004	ATP	PG-O3B-PB-O1B
5	C	5002	ATP	PG-O3B-PB-O1B
5	C	5002	ATP	PG-O3B-PB-O2B
5	C	5002	ATP	PB-O3A-PA-O1A
5	C	5002	ATP	PB-O3A-PA-O2A
5	C	5004	ATP	PG-O3B-PB-O1B
5	D	5002	ATP	PG-O3B-PB-O1B
5	D	5002	ATP	PG-O3B-PB-O2B
5	D	5002	ATP	PB-O3A-PA-O1A
5	D	5002	ATP	PB-O3A-PA-O2A
5	D	5004	ATP	PG-O3B-PB-O1B

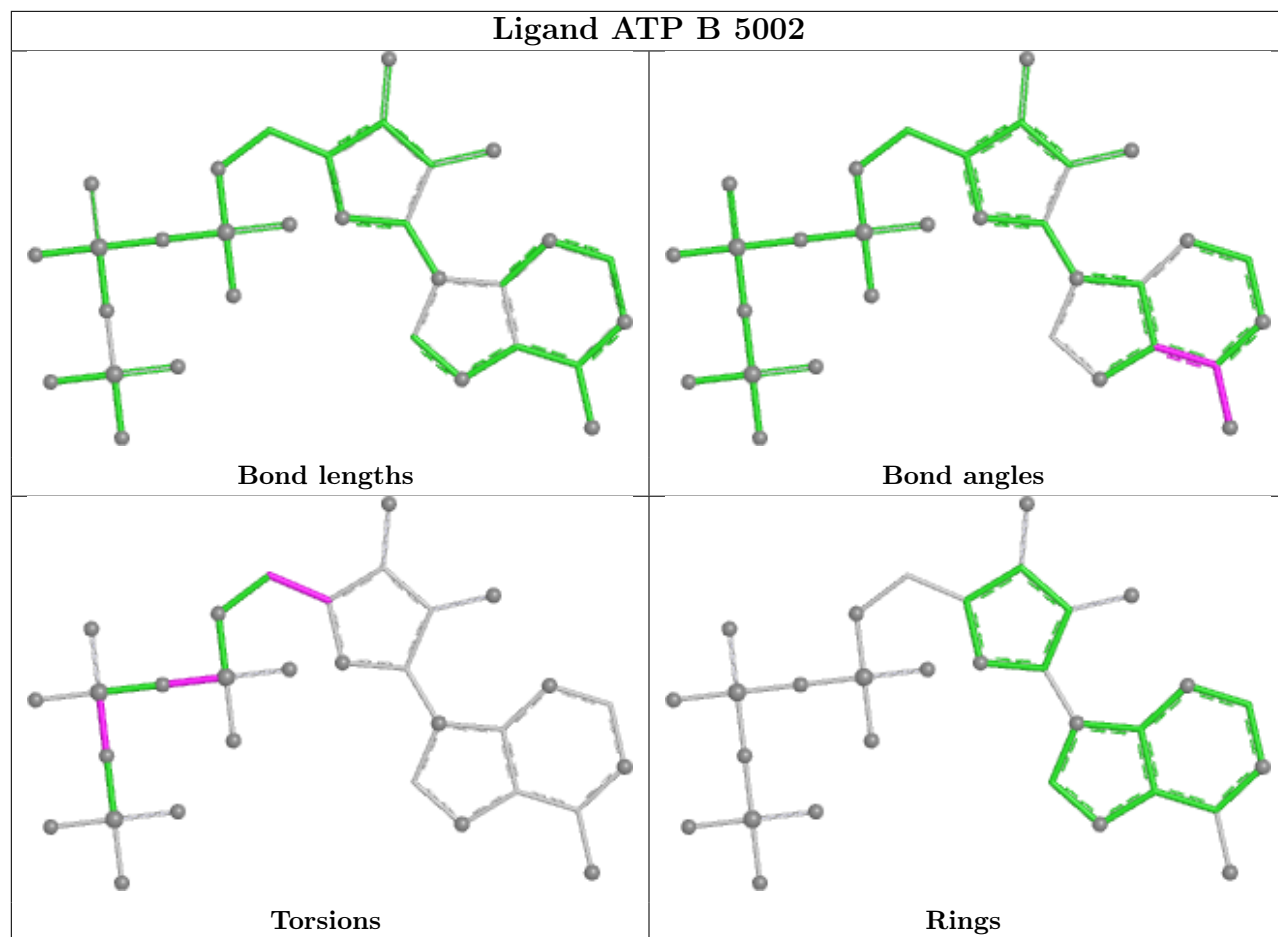
There are no ring outliers.

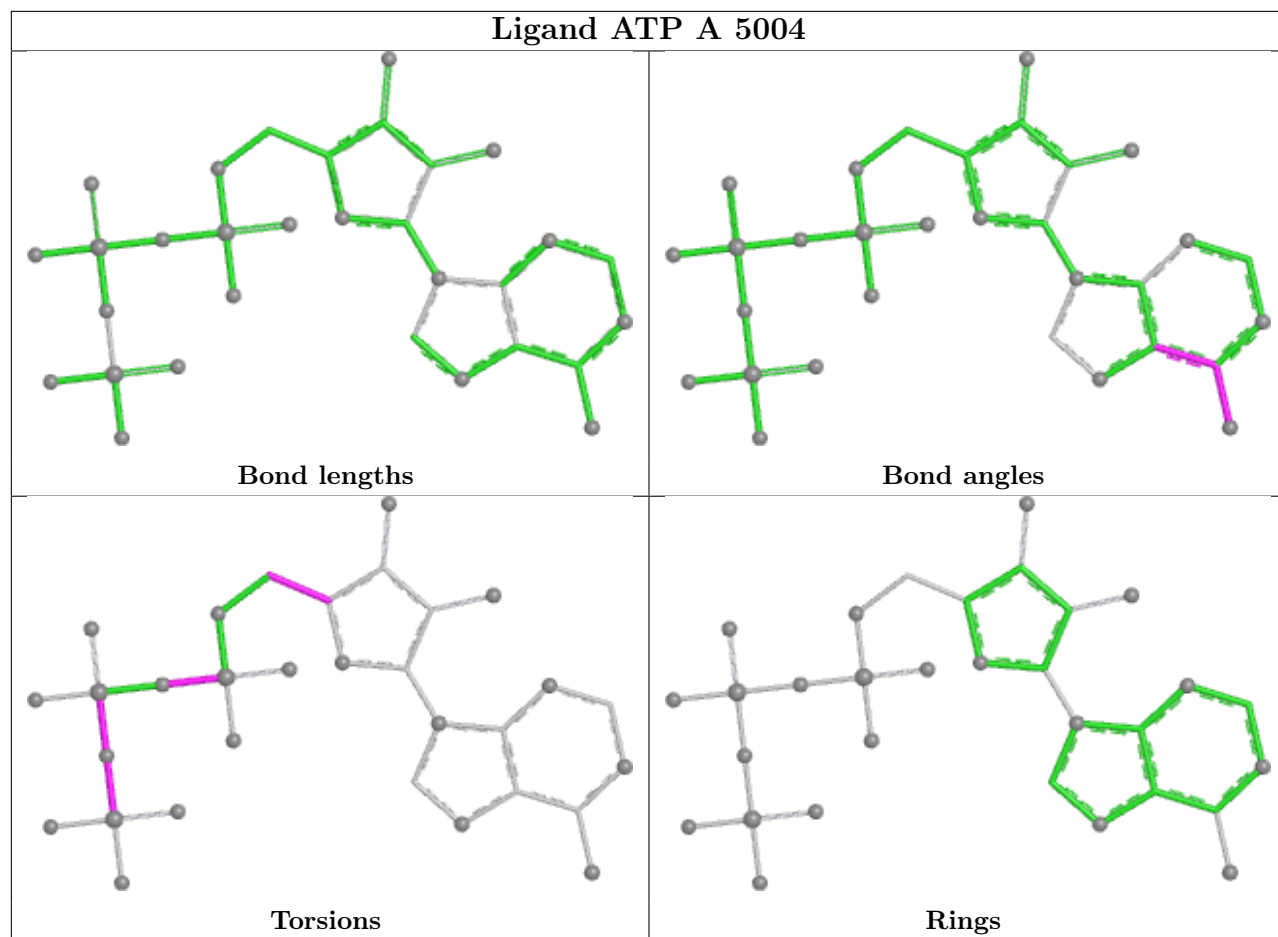
No monomer is involved in short contacts.

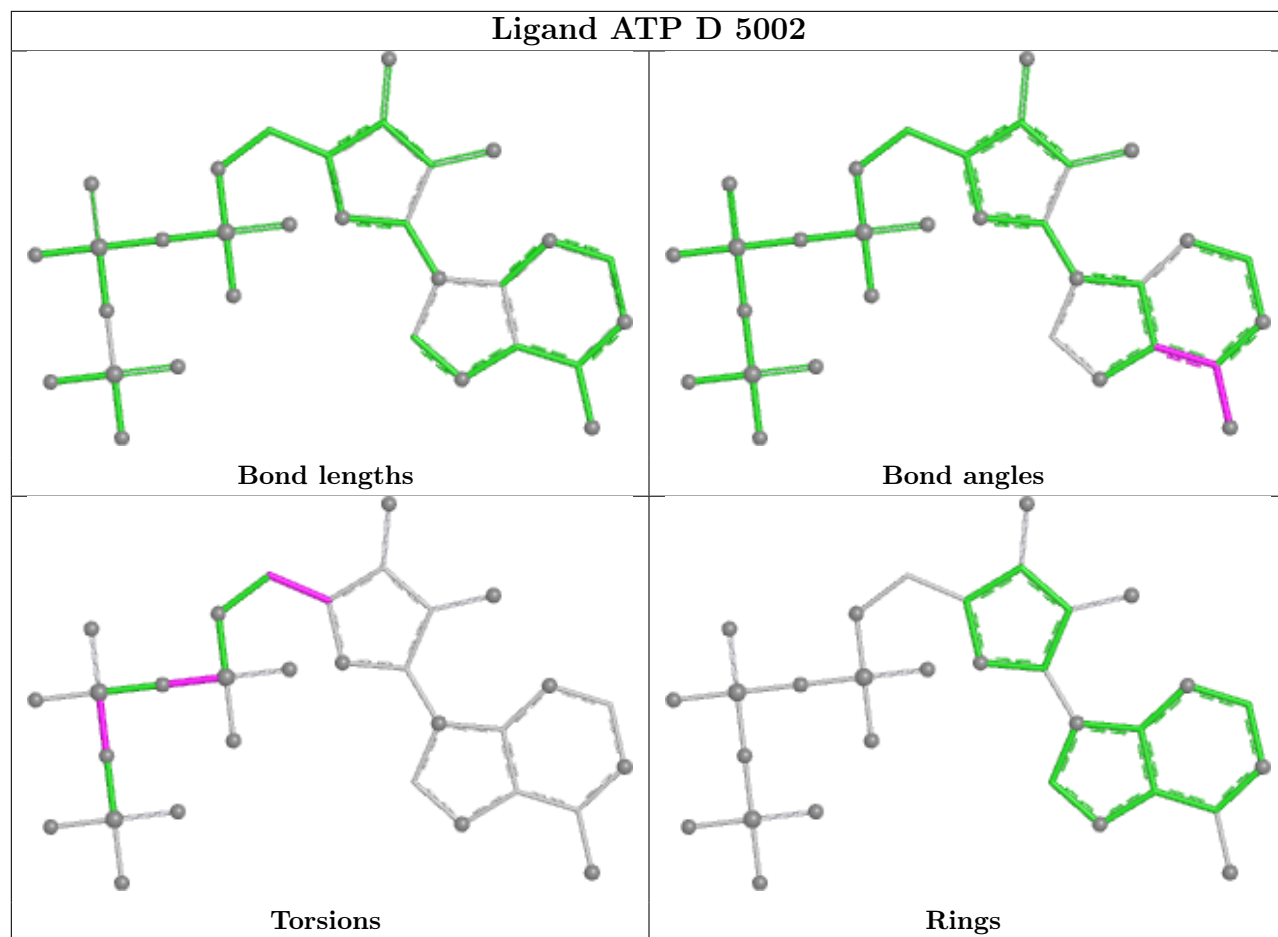
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

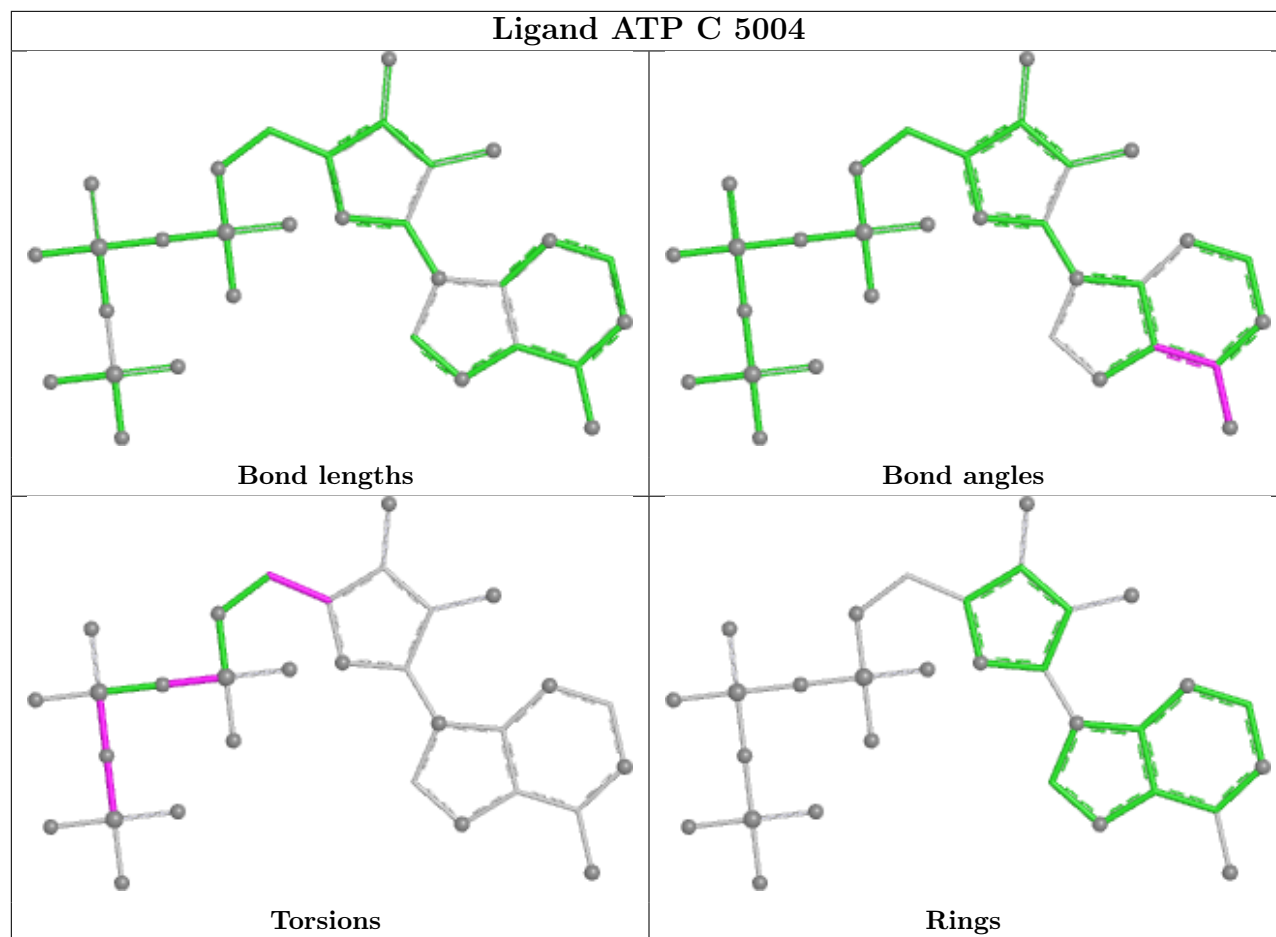


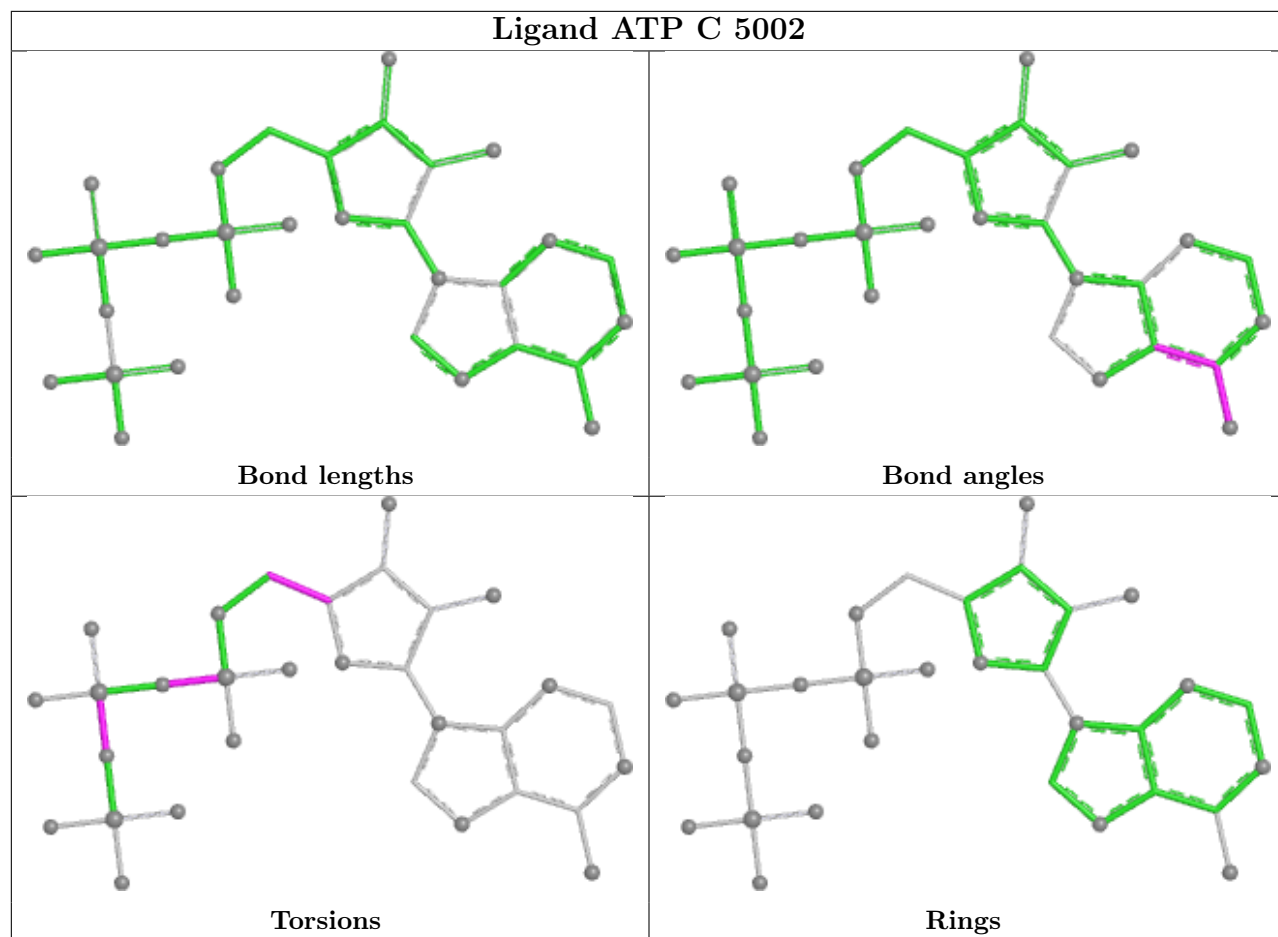


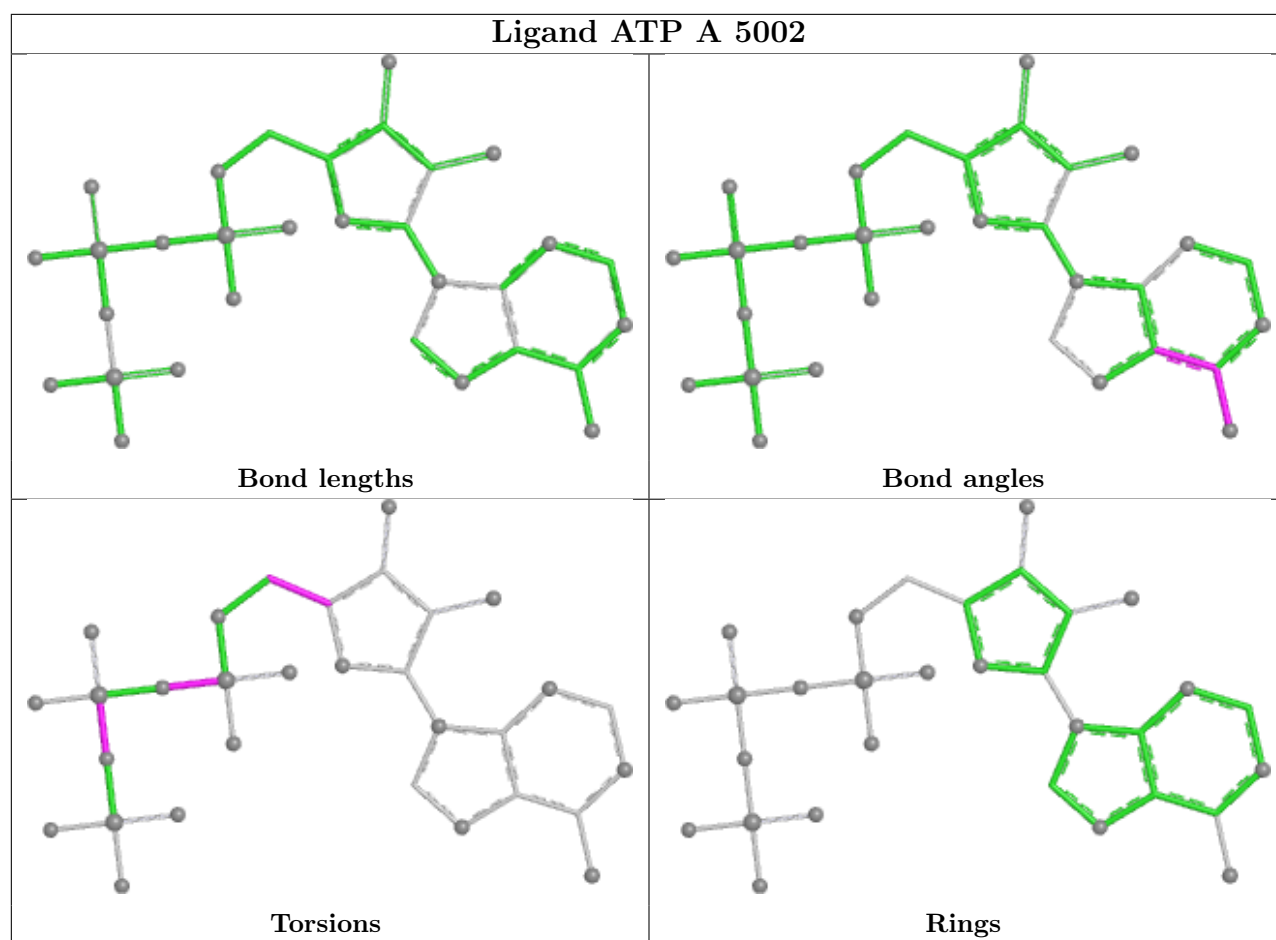












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

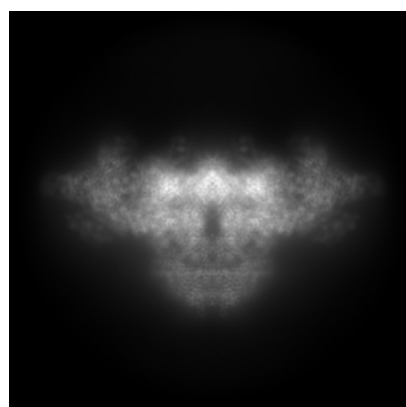
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-42768. These allow visual inspection of the internal detail of the map and identification of artifacts.

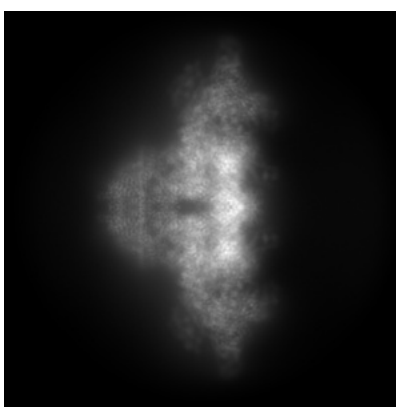
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

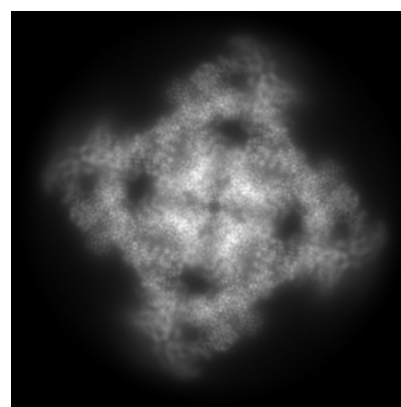
6.1.1 Primary map



X



Y



Z

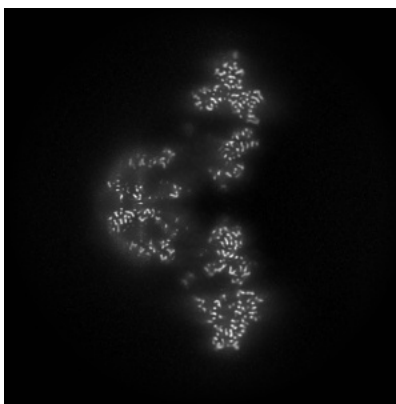
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

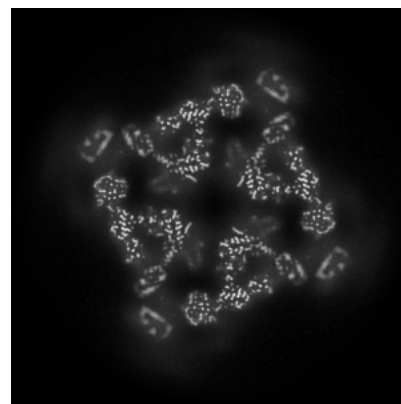
6.2.1 Primary map



X Index: 256



Y Index: 256



Z Index: 256

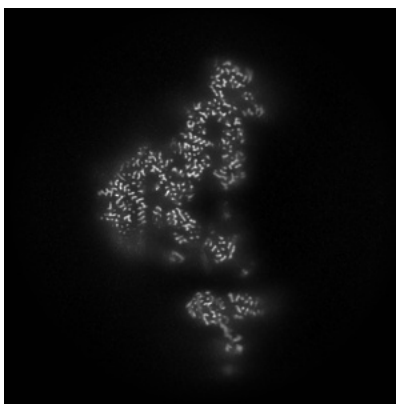
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

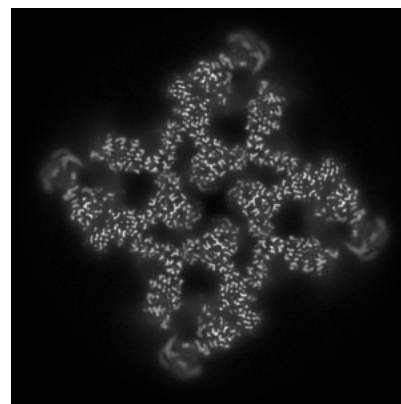
6.3.1 Primary map



X Index: 278



Y Index: 278

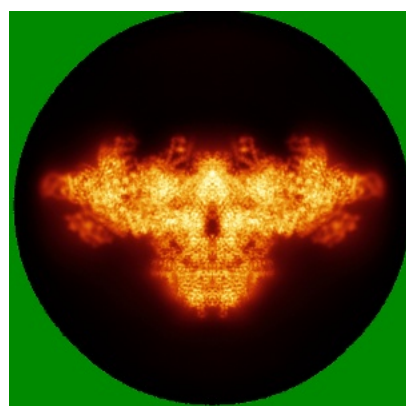


Z Index: 285

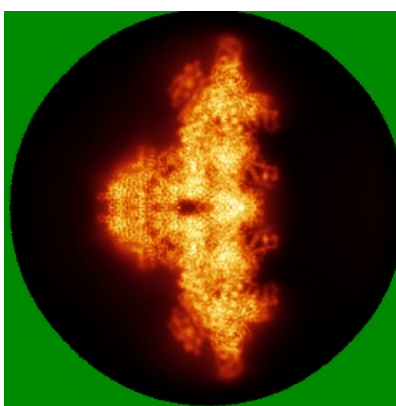
The images above show the largest variance slices of the map in three orthogonal directions.

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

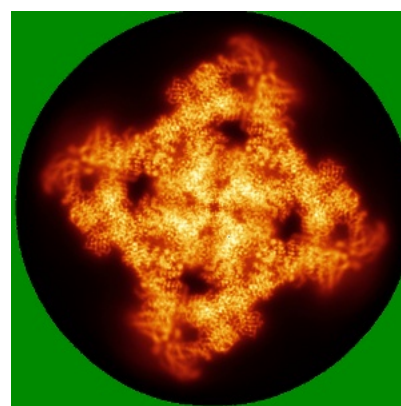
6.4.1 Primary map



X



Y

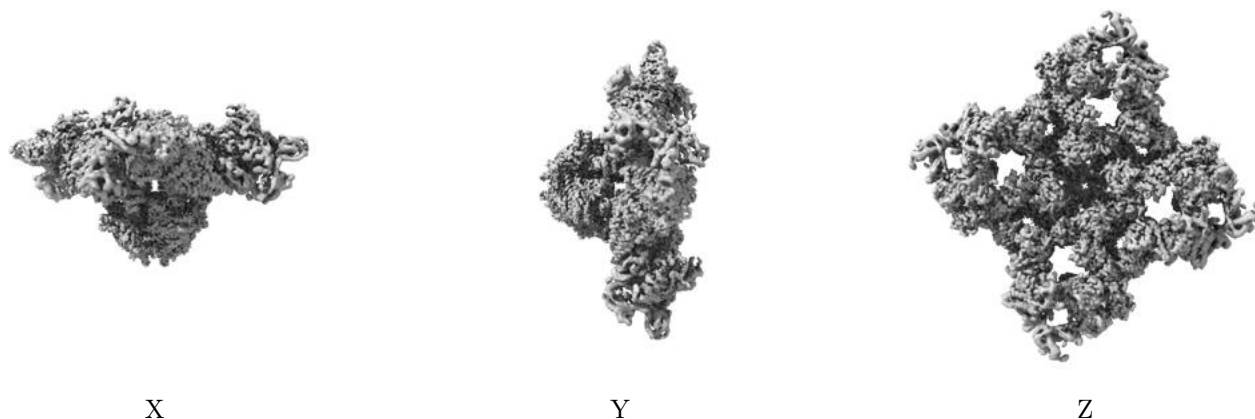


Z

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 0.14. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

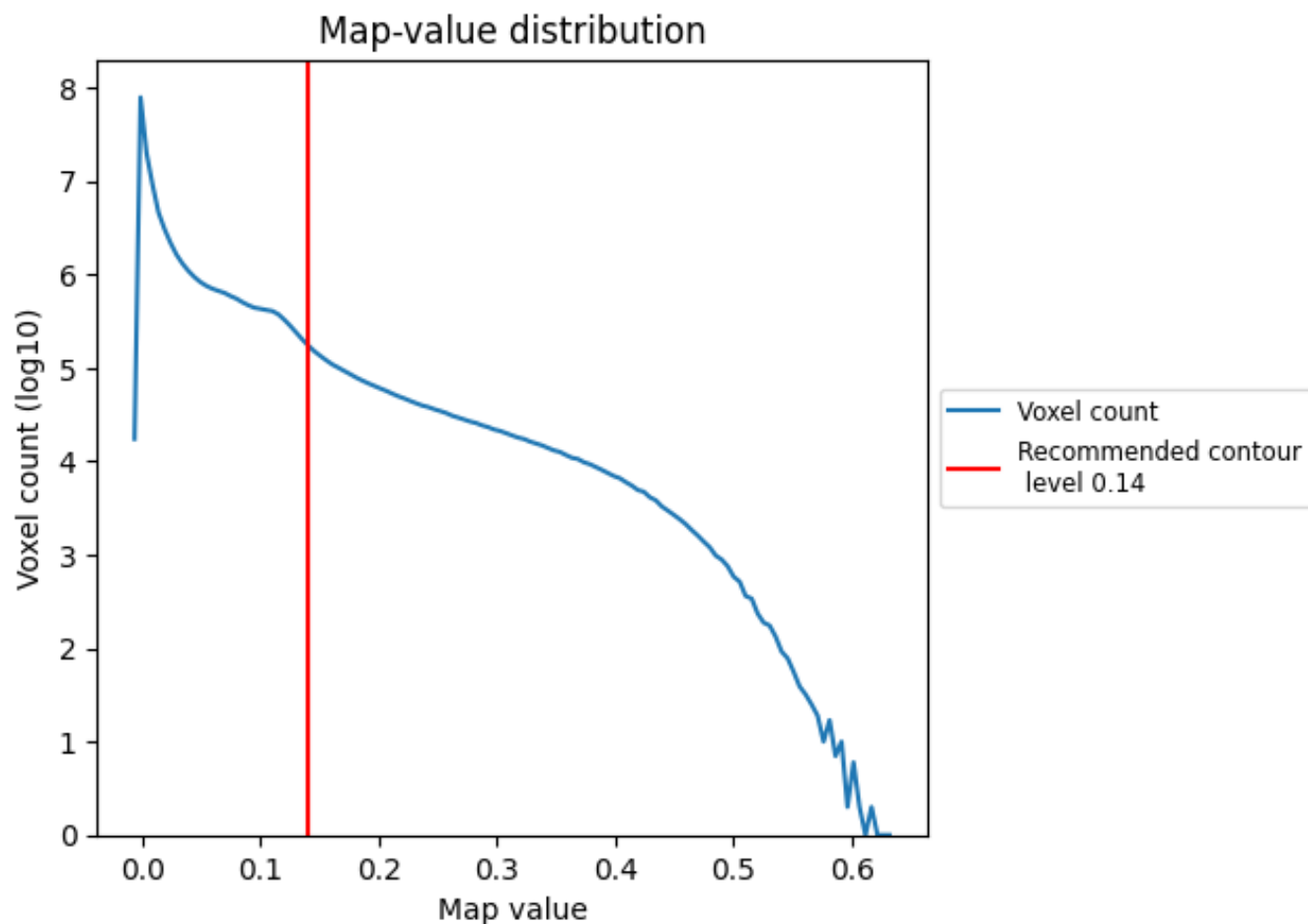
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

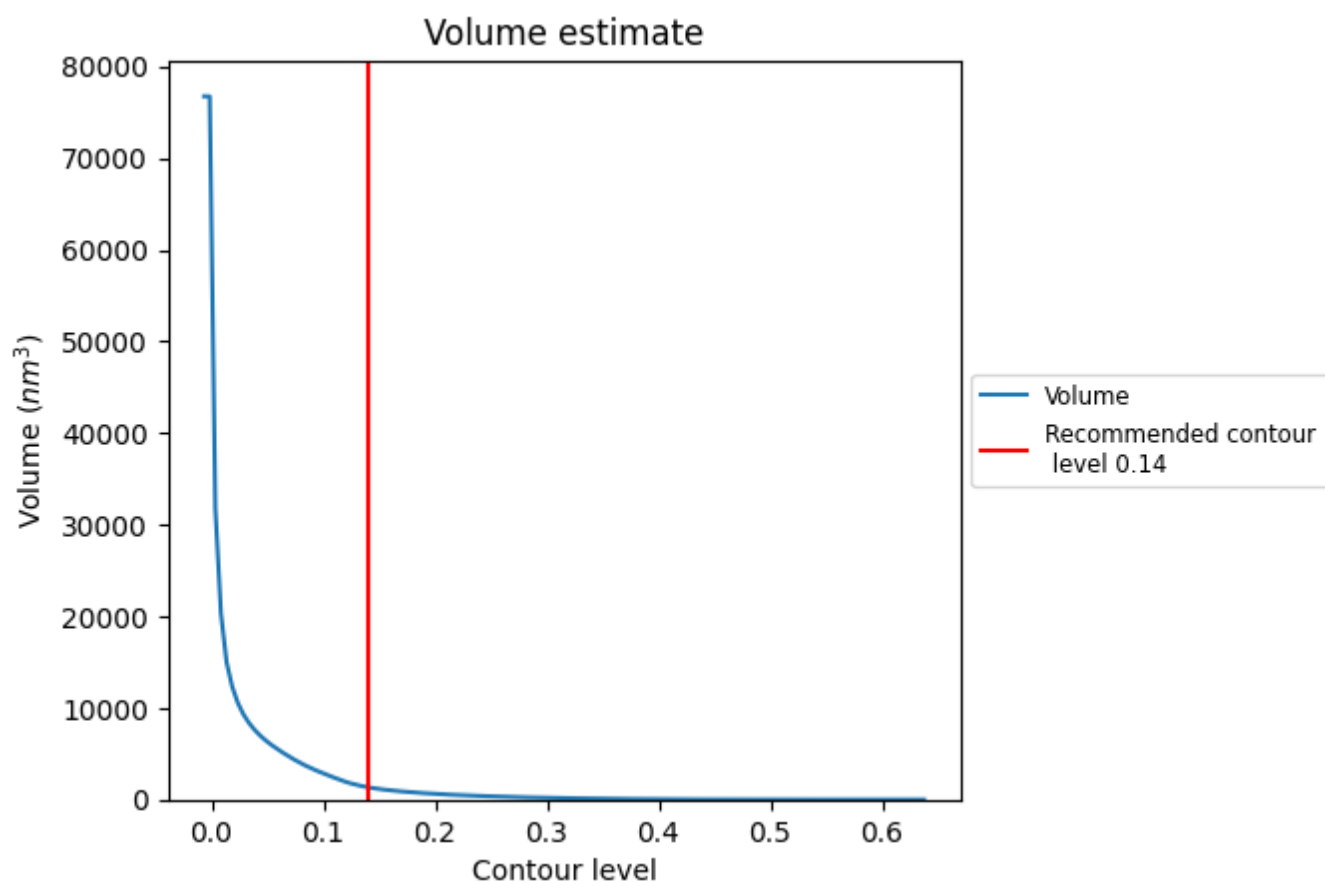
This section contains the results of statistical analysis of the map.

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.

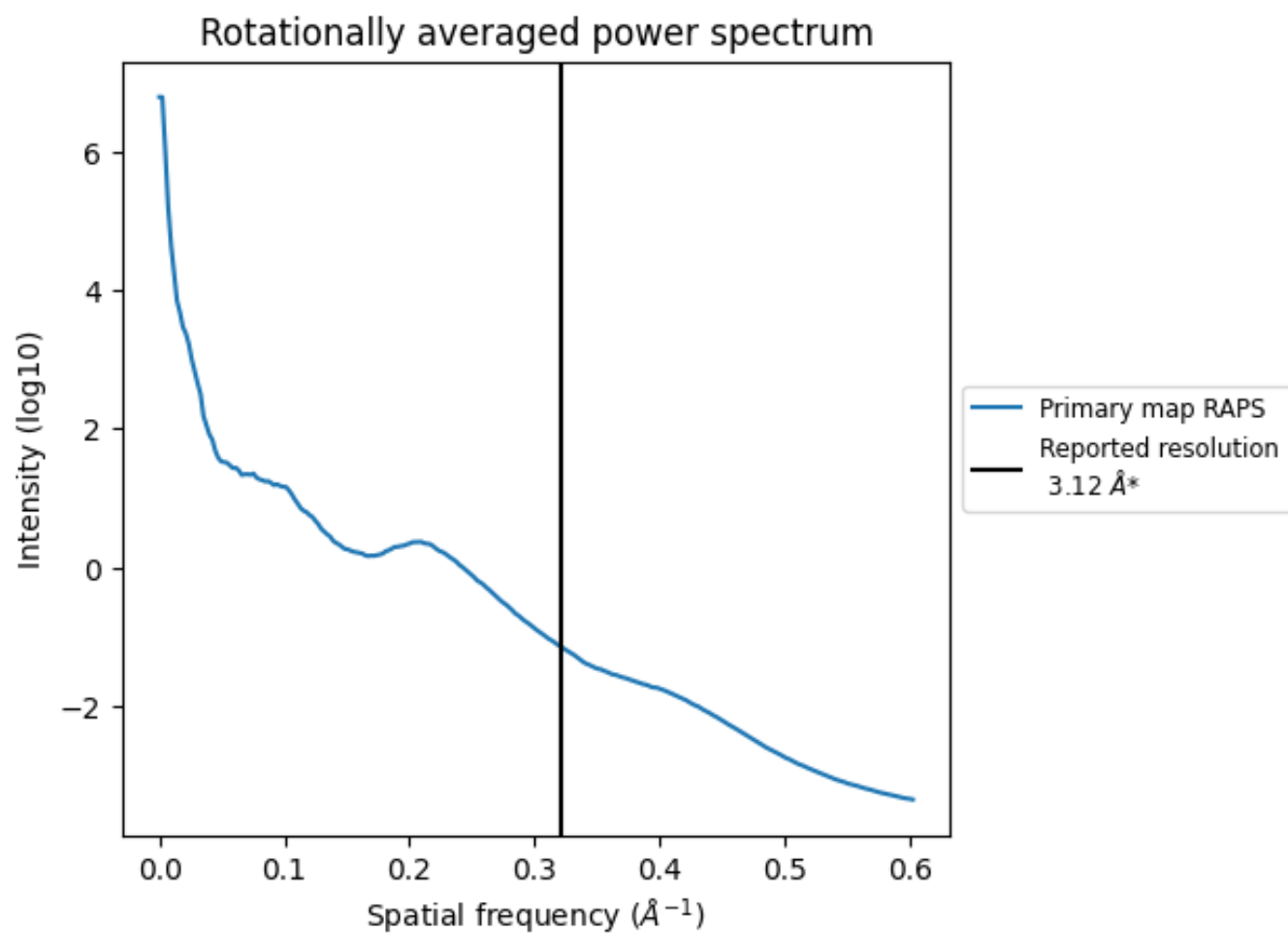
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1339 nm³; this corresponds to an approximate mass of 1210 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.321 Å⁻¹

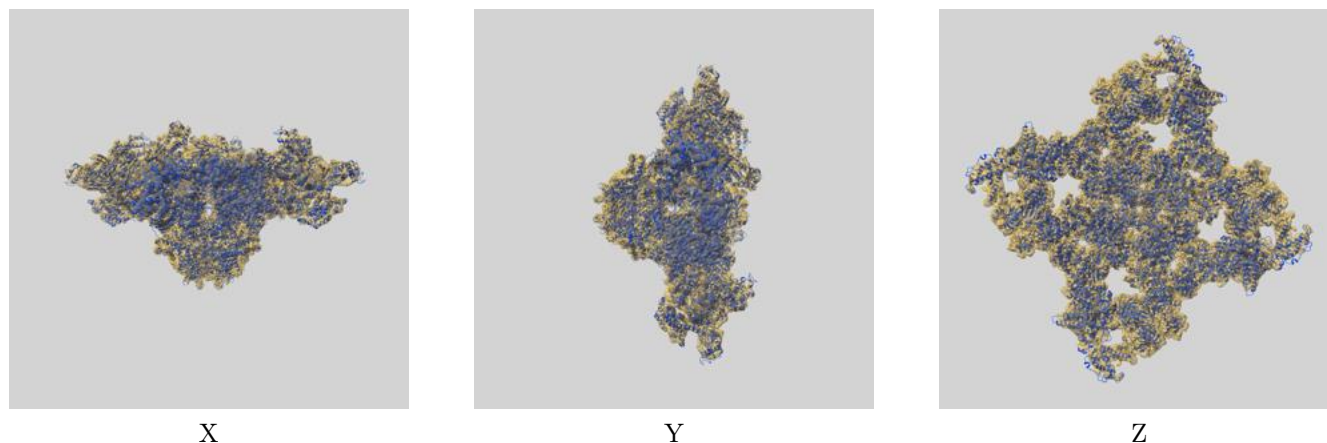
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

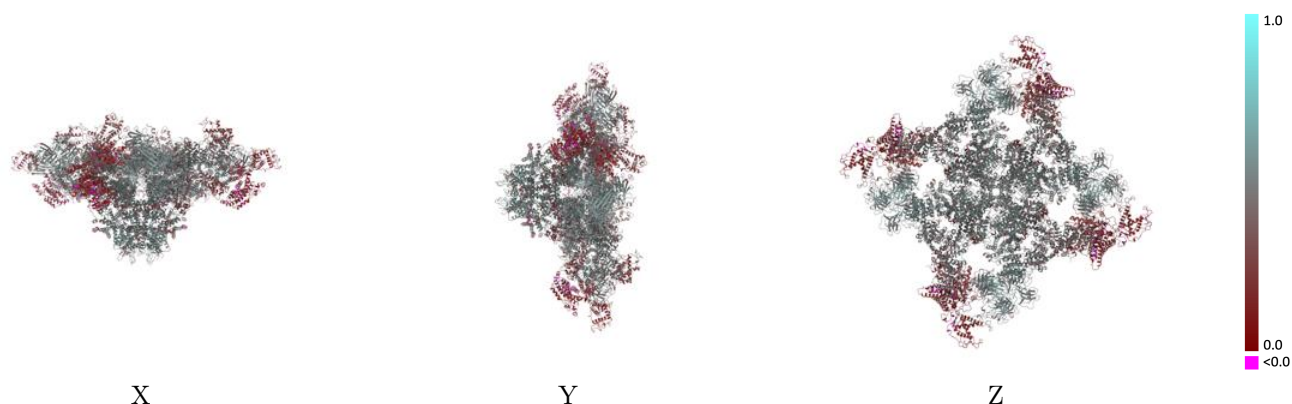
This section contains information regarding the fit between EMDB map EMD-42768 and PDB model 8UXL. Per-residue inclusion information can be found in section [3](#) on page [7](#).

9.1 Map-model overlay [i](#)



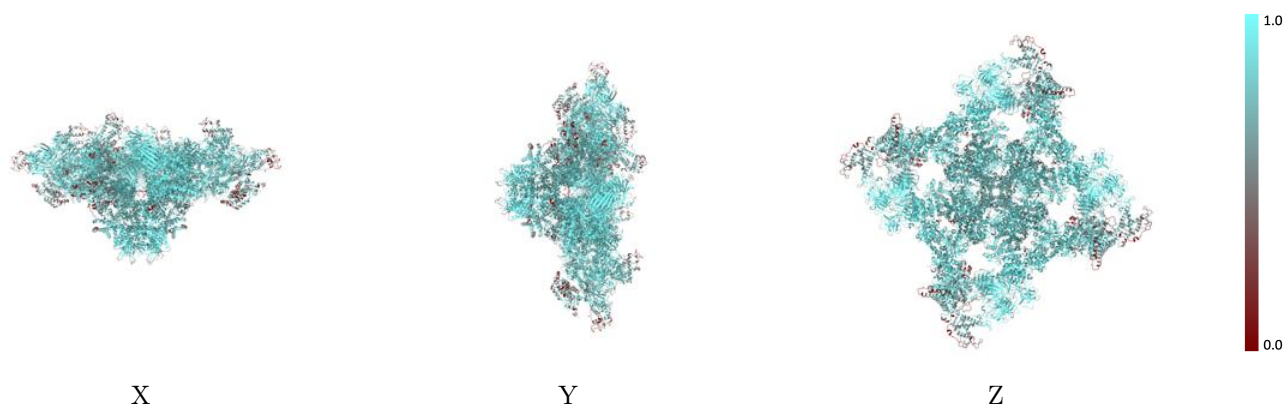
The images above show the 3D surface view of the map at the recommended contour level 0.14 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



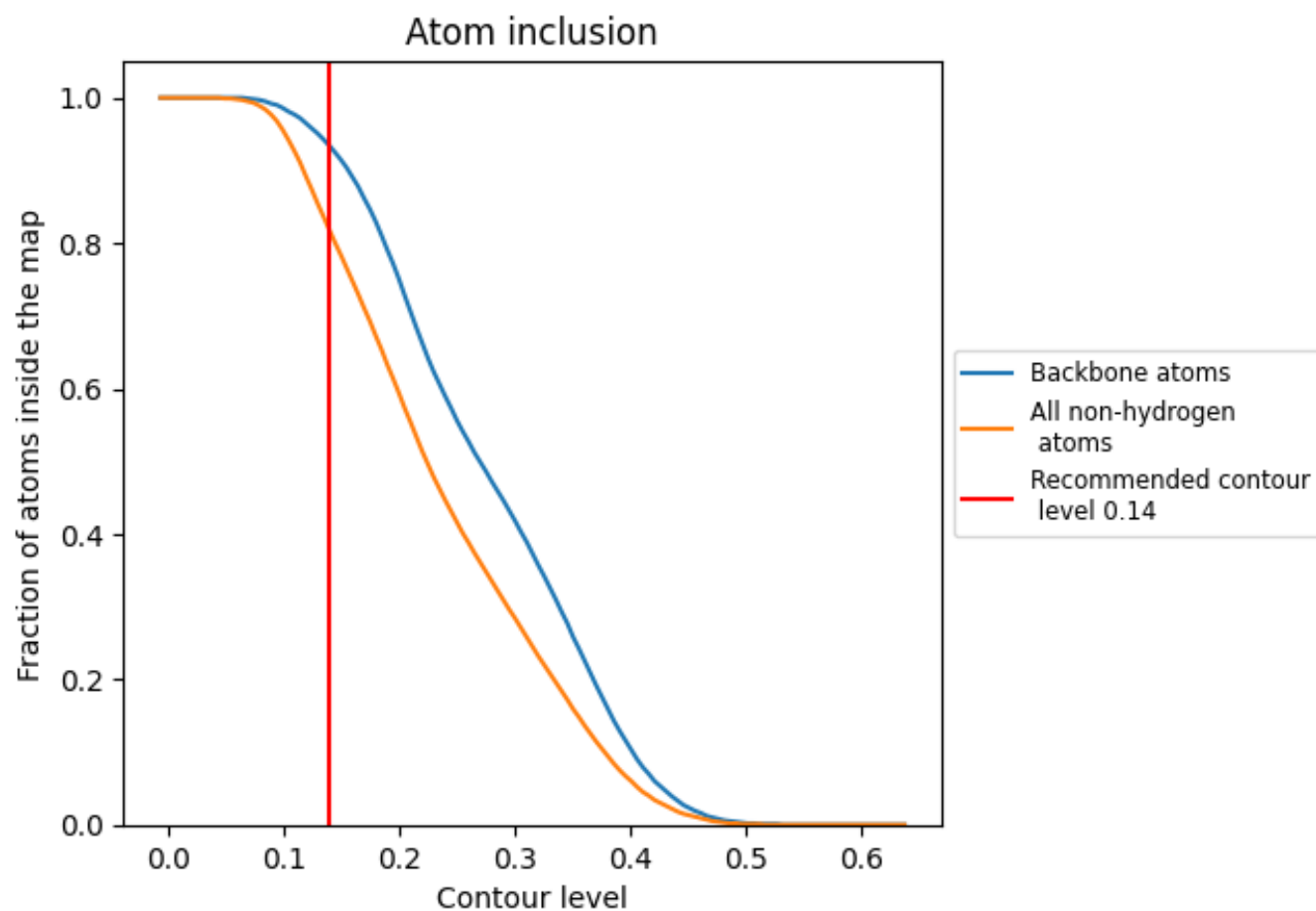
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.14).

9.4 Atom inclusion [i](#)



At the recommended contour level, 93% of all backbone atoms, 82% 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 (0.14) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	<div></div> 0.8160	<div></div> 0.4170
A	<div></div> 0.8150	<div></div> 0.4190
B	<div></div> 0.8170	<div></div> 0.4250
C	<div></div> 0.8150	<div></div> 0.4210
D	<div></div> 0.8110	<div></div> 0.4130
E	<div></div> 0.9130	<div></div> 0.5170
F	<div></div> 0.9130	<div></div> 0.5160
G	<div></div> 0.9130	<div></div> 0.5190
H	<div></div> 0.9160	<div></div> 0.5180
I	<div></div> 0.7920	<div></div> 0.2590
J	<div></div> 0.7920	<div></div> 0.2600
K	<div></div> 0.7950	<div></div> 0.2600
L	<div></div> 0.7890	<div></div> 0.2530

