



Full wwPDB EM Validation Report ⓘ

Nov 14, 2023 – 11:34 AM EST

PDB ID : 8UXG
EMDB ID : EMD-42763
Title : Structure of PKA phosphorylated human RyR2-R420W in the closed state in the presence of ARM210
Authors : Miotto, M.C.; Marks, A.R.
Deposited on : 2023-11-09
Resolution : 3.08 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.dev70
Mogul : 1.8.5 (274361), CSD as541be (2020)
MolProbity : 4.02b-467
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36

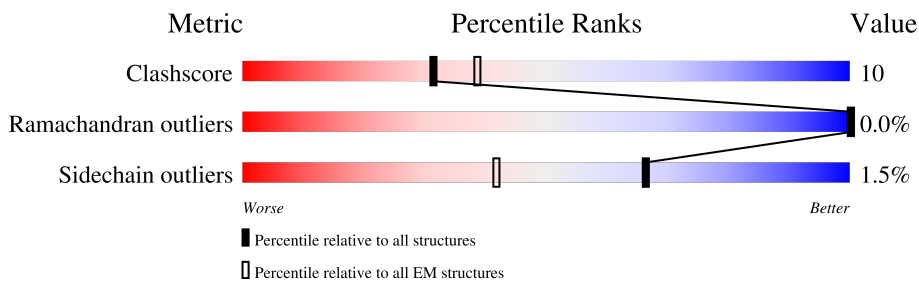
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.08 Å.

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



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

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

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

2 Entry composition [i](#)

There are 5 unique types of molecules in this entry. The entry contains 138712 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Ryanodine receptor 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	4224	33774	21521	5743	6280	230	2	0
1	B	4224	33774	21521	5743	6280	230	2	0
1	C	4224	33774	21521	5743	6280	230	2	0
1	D	4224	33774	21521	5743	6280	230	2	0

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

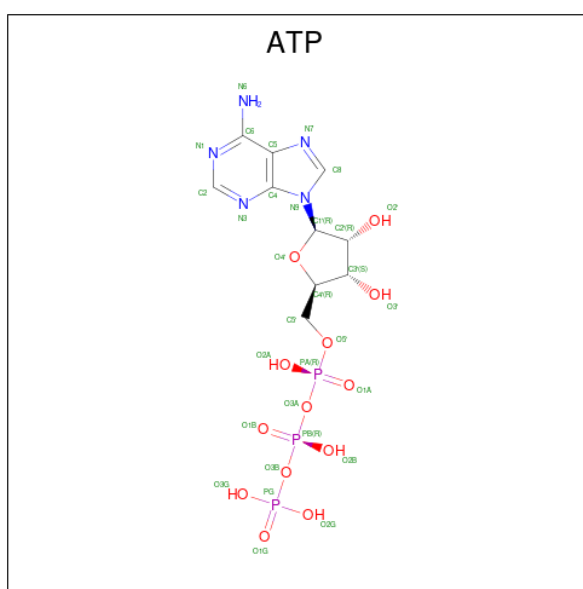
- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1B.

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

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

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

- Molecule 4 is ADENOSINE-5'-TRIPHOSPHATE (three-letter code: ATP) (formula: C₁₀H₁₆N₅O₁₃P₃) (labeled as "Ligand of Interest" by depositor).



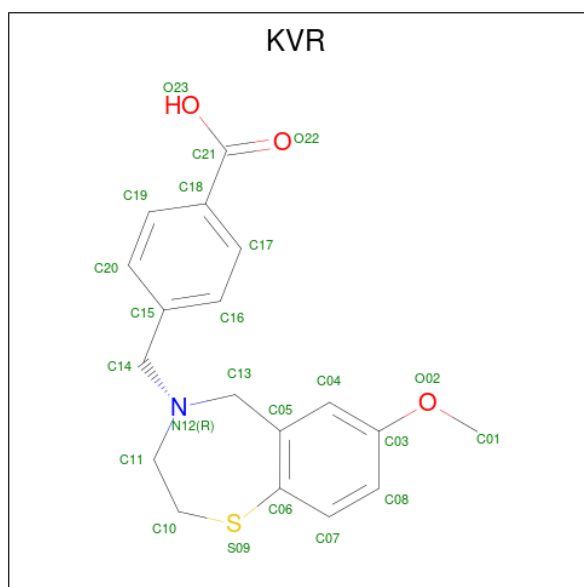
Mol	Chain	Residues	Atoms	AltConf
4	A	1	Total C N O P 31 10 5 13 3	0
4	A	1	Total C N O P 31 10 5 13 3	0
4	B	1	Total C N O P 31 10 5 13 3	0
4	B	1	Total C N O P 31 10 5 13 3	0
4	C	1	Total C N O P 31 10 5 13 3	0
4	C	1	Total C N O P 31 10 5 13 3	0
4	D	1	Total C N O P 31 10 5 13 3	0

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

- Molecule 5 is 4-[(7-methoxy-2,3-dihydro-1,4-benzothiazepin-4(5H)-yl)methyl]benzoic acid (three-letter code: KVR) (formula: C₁₈H₁₉NO₃S) (labeled as "Ligand of Interest" by depositor).



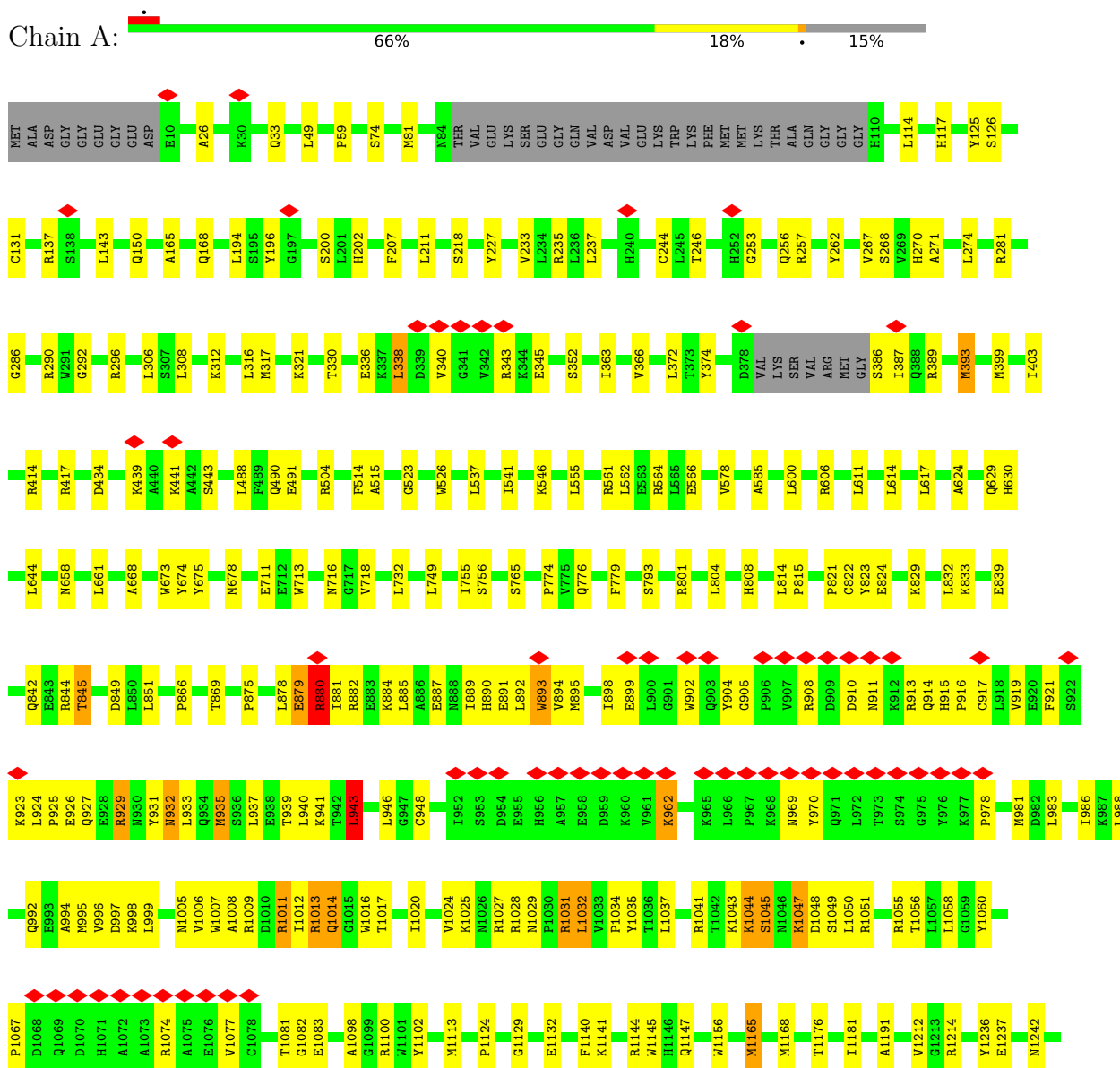
Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	S	
5	A	1	23	18	1	3	1	0
5	B	1	23	18	1	3	1	0
5	C	1	23	18	1	3	1	0
5	D	1	23	18	1	3	1	0

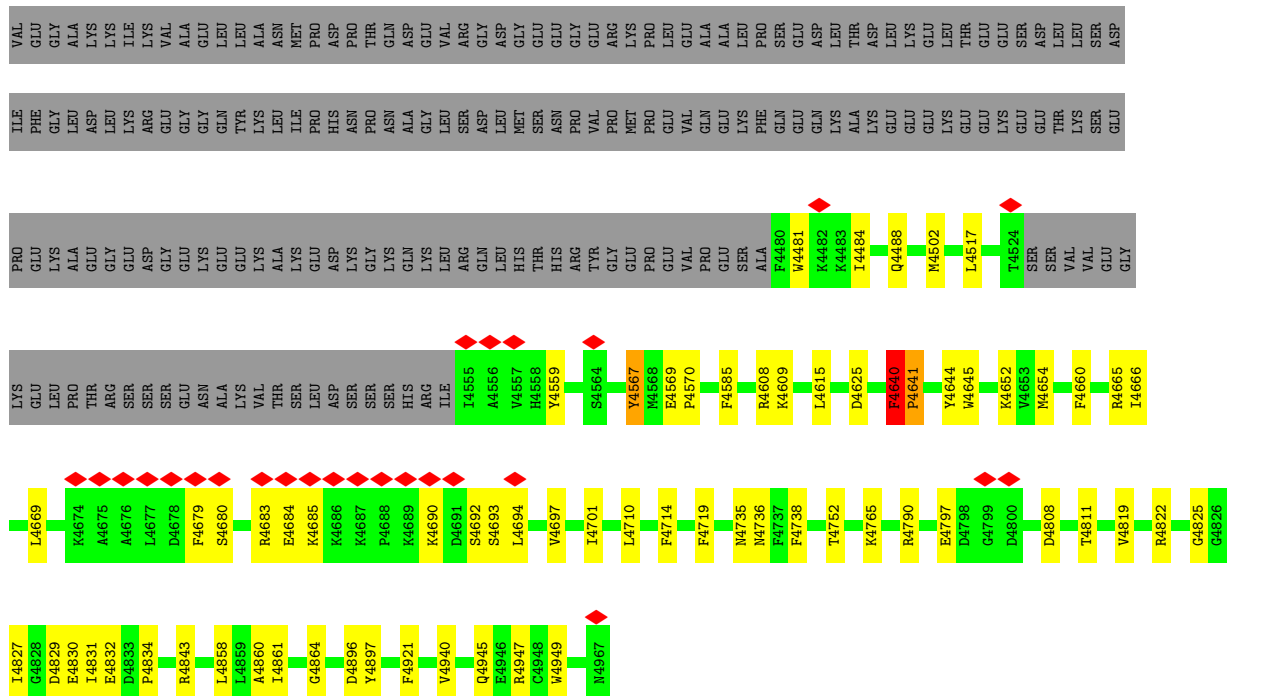
3 Residue-property plots [i](#)

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.

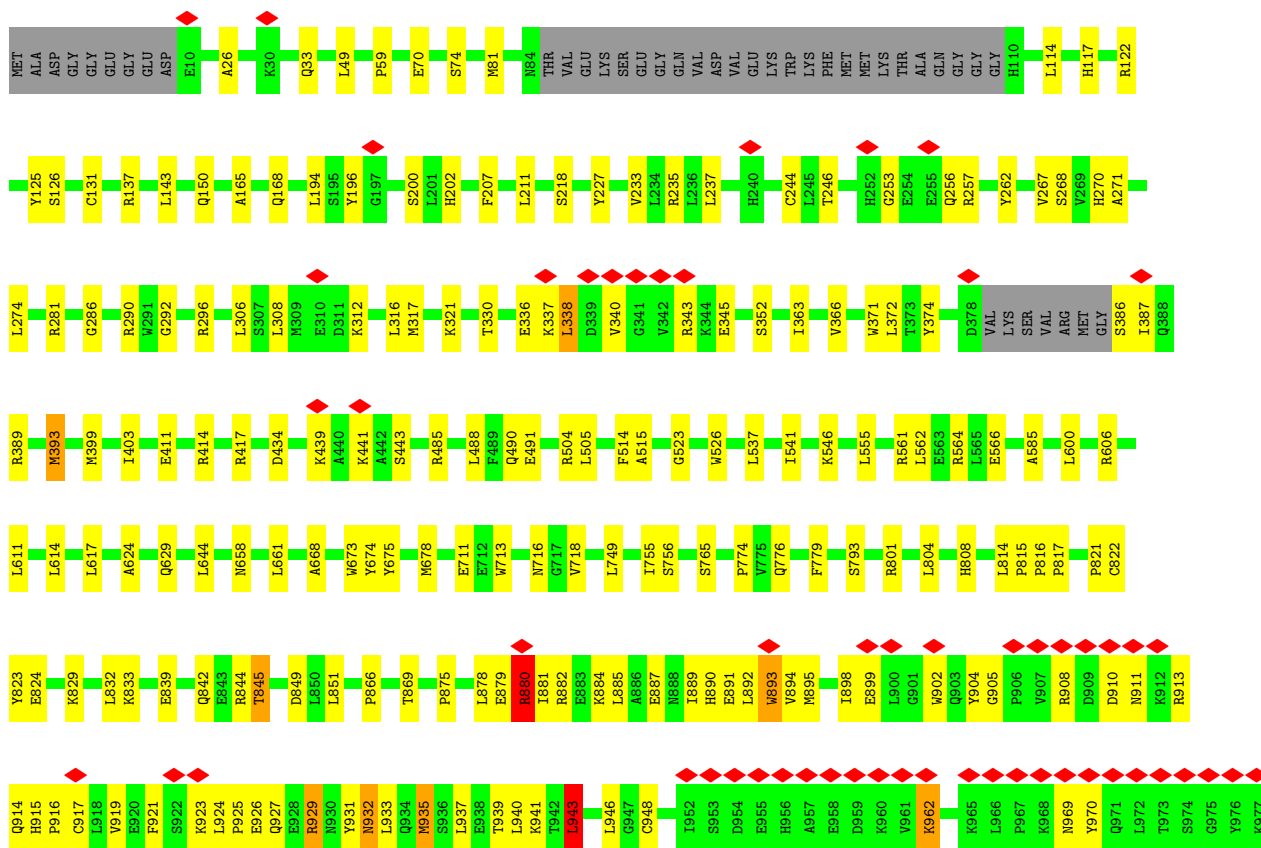
- Molecule 1: Ryanodine receptor 2

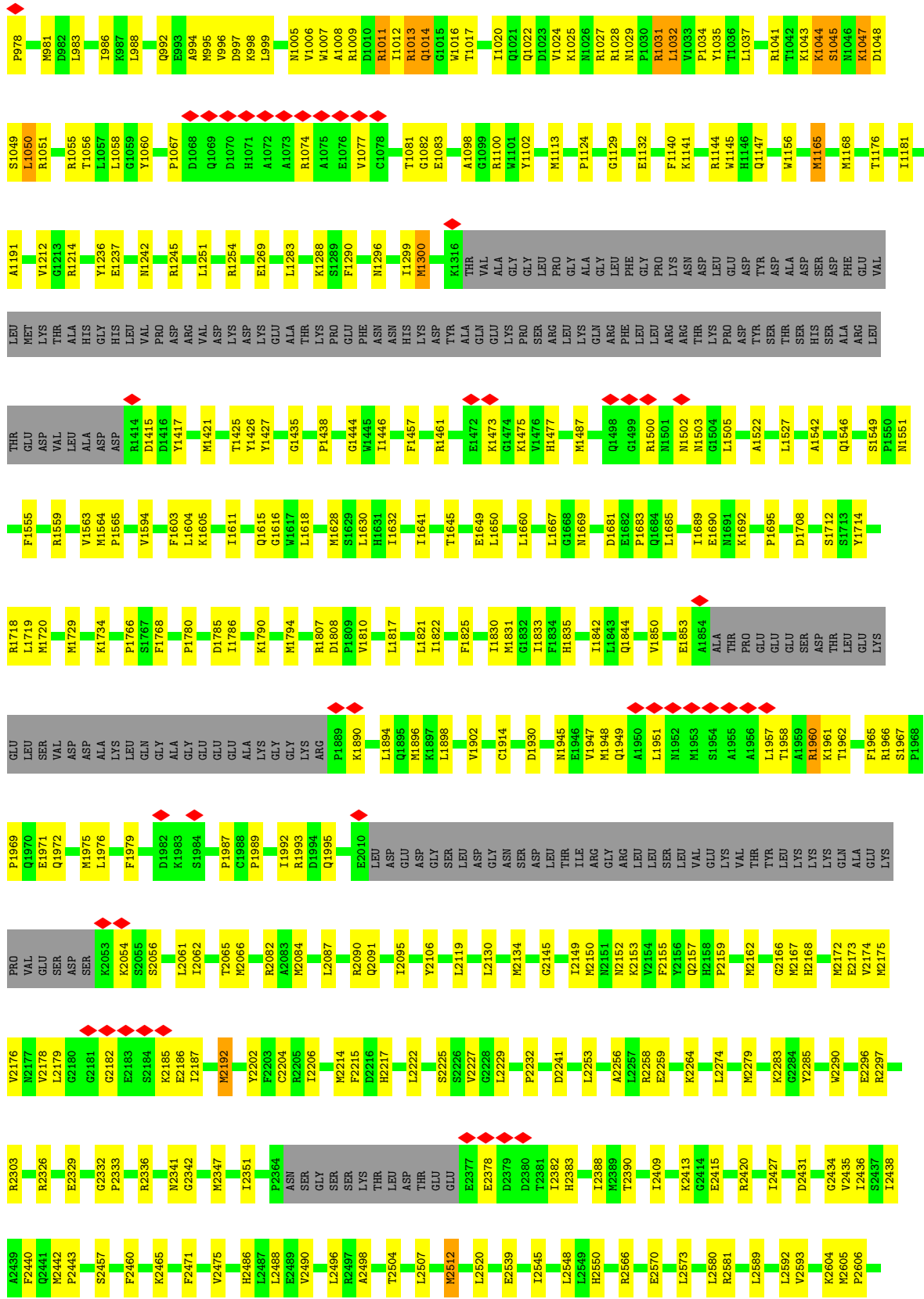
Chain A:



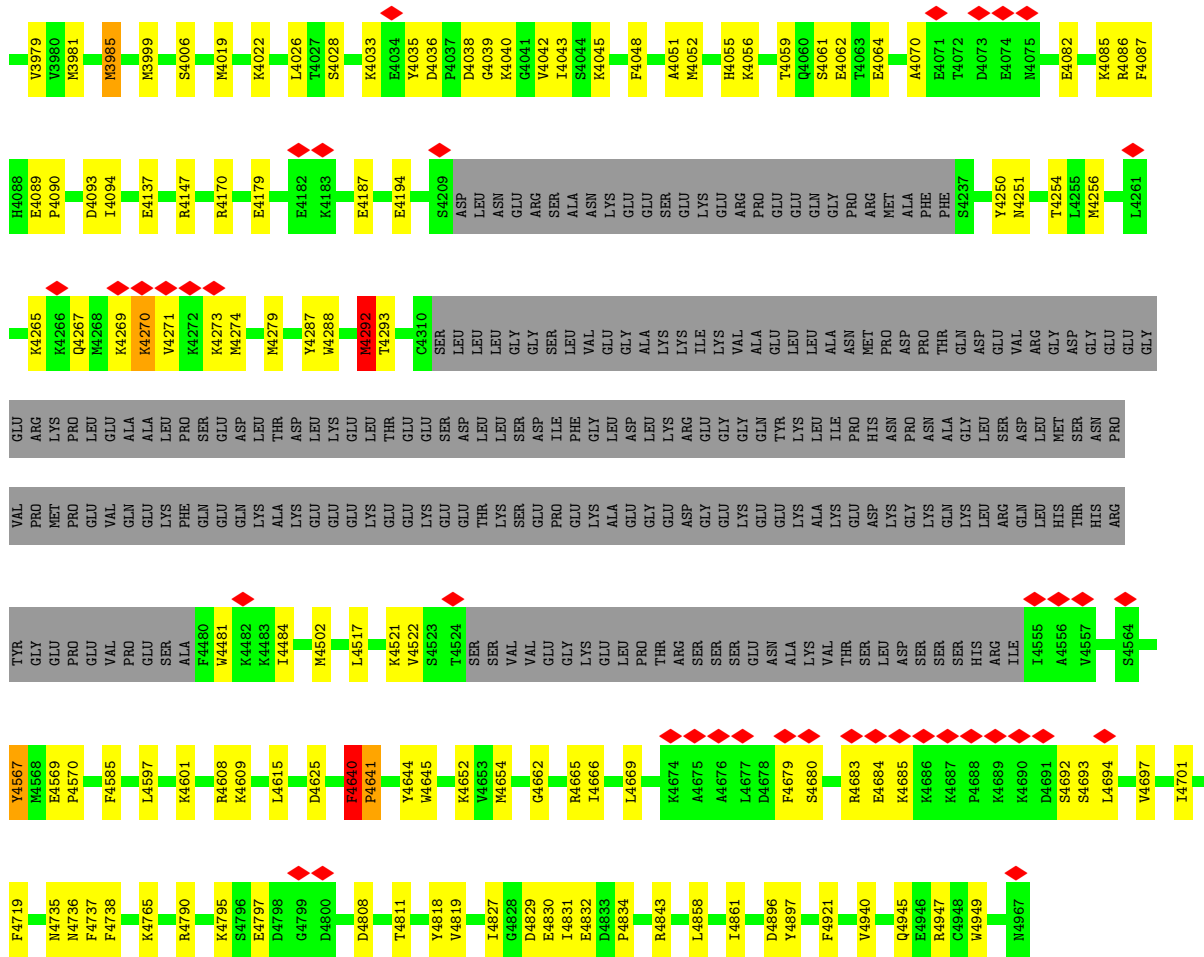


• Molecule 1: Ryanodine receptor 2

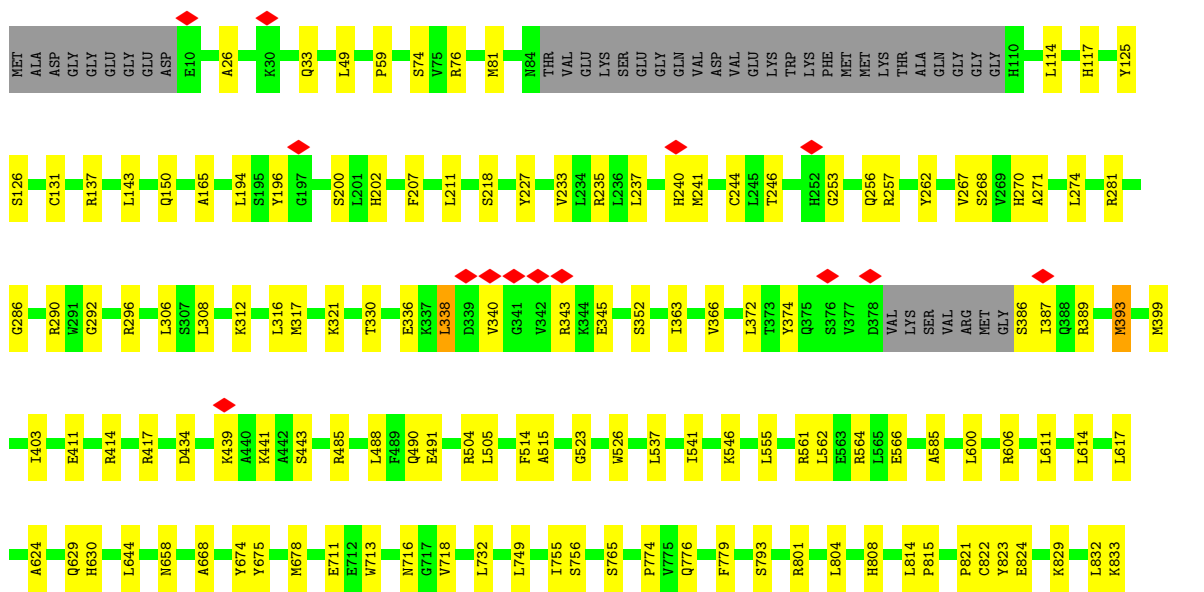


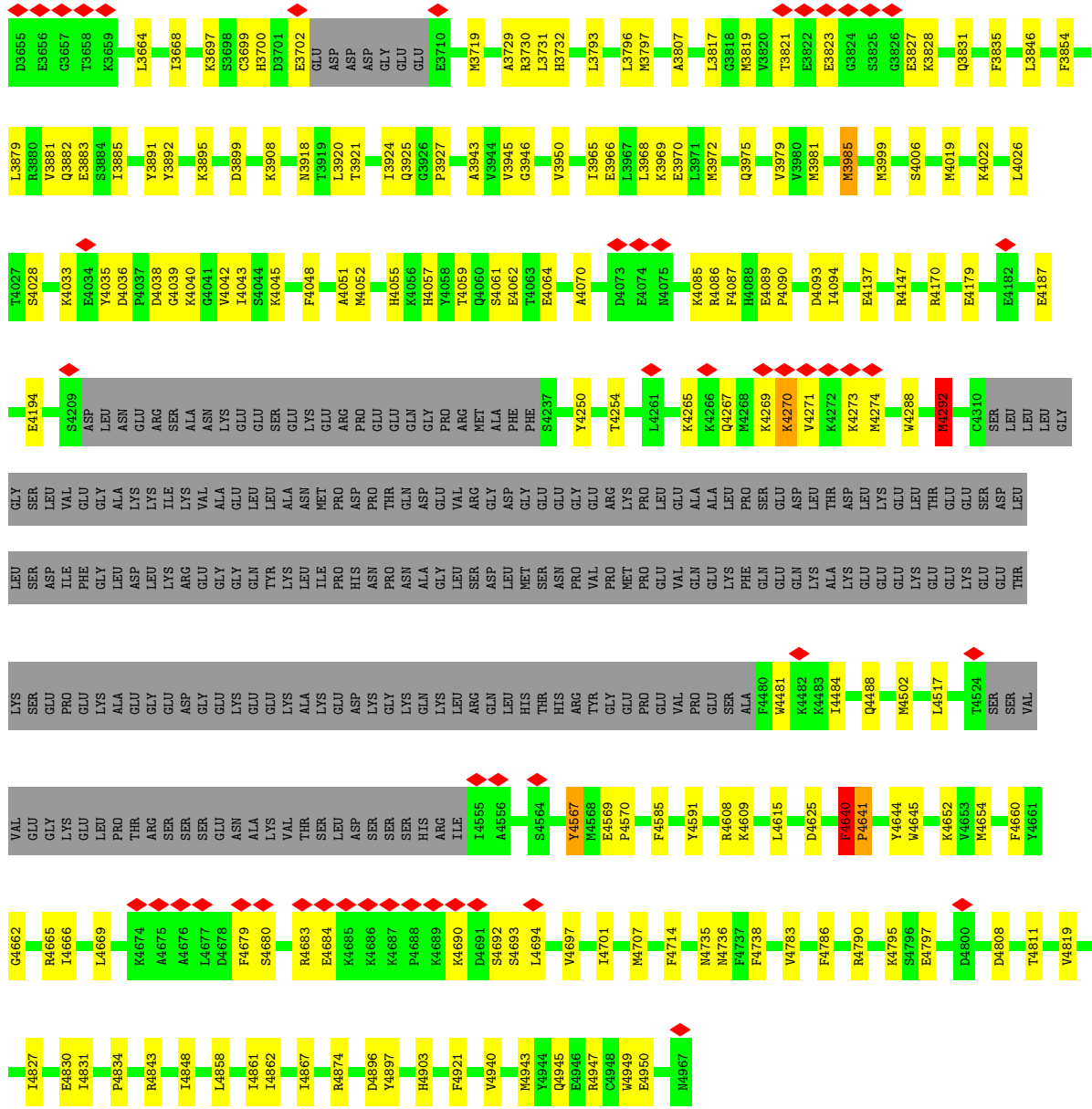


E3822	E3823	G3824	S3825	G3826	E3827	K3828	Q3831	F3835	L3846	F3854	Y3851	Q3852	E3853	E3854	D3855	E3856	G3857	T3858	K3859	L3664	I3668	L3687	K3697	C3699	H3700	D3701	E3702	GLU	ASP	ASP	GLY	GLU	GLU	E3710	M3719	A3729	R3730	L3731	H3732	I3744	S3747	L3793	L3796	M3797	N3806	A3807	T3821							
L2610	K2619	L2623	K2627	G2628	N2629	F2630	E2635	L2638	R2642	K2643	L2644	E2660	L2664	A2665	L2666	D2679	E2682	S2683	N2684	H2689	E2690	K2691	Q2692	S2693	S2694	N2695	D2696	S2697	E2698	N2702	P2703	Q2704	P2705	V2706	K2723	E2726	K2731	M2734	A2738	N2739	G2740	K2741	G2820											
I2742	Y2743	G2744	E2745	L2746	Y2747	S2748	D2749	S2750	S2751	K2752	V2753	Q2754	M2757	K2758	P2759	L2762	L2763	S2764	E2765	K2766	E2767	K2768	E2769	R2772	V2773	L2779	M2782	V2785	R2788	I2789	R2793	N2802	ARG	THR	ARG	THR	ILE	ARG	GLN	THR	GLN	GLN	VAL	SER	SER	VAL	ALA	ALA	HIS					
Y2821	S2822	P2823	R2824	N2830	L2832	T2833	L2834	S2835	D2836	L2837	M2840	M2844	H2849	W2852	A2853	K2854	K2855	K2856	K2857	M2858	E2861	G2864	G2865	G2867	H2868	G2869	G2870	G2871	G2872	G2873	G2874	D2875	T2876	L2877	K2884	D2885	R2886	E2887	Q2890	D2891	I2892	L2893	F2895	L2896	S2904	R2905	K2908	D2909	L2910					
E2911	L2912	D2913	T2914	P2915	S2916	L2917	E2918	K2919	R2920	R2921	Q2927	Q2928	L2929	L2930	R2931	D2934	Q2938	E2942	F2943	K2944	G2945	G2946	S2947	R2948	G2949	K2950	G2951	E2952	H2953	F2954	P2955	Y2956	E2957	L2960	V2966	V2967	L2968	P2969	L2970	R2979	L2982	L2983	R2988	P2989	S2997	E3000	K3001	E3002						
T3005	S3006	L3011	L3014	R3018	I3019	S3020	L3021	F3022	D3025	I3029	L3033	H3034	L3035	Q3038	T3039	L3040	D3041	A3042	V3045	M3046	L3050	E3051	S3052	V3053	K3054	A3059	N3063	K3070	T3071	M3072	E3073	N3074	L3075	K3076	Q3079	F3080	T3081	HIS	THR	ARG	ASN	GLN	PRO	K3088										
Y3086	L3102	P3103	M3104	L3108	F3109	L3112	H3115	Q3116	F3117	G3118	E3119	L3122	V3126	Q3127	S3129	L3133	L3134	L3137	K3144	V3148	E3149	R3150	Q3151	R3152	L3155	L3159	F3162	F3166	F3167	V3168	L3171	H3174	L3175	L3183	Y3184	K3187	S3188	S3189	R3190	E3191														
R3192	P3198	V3204	L3211	E3212	K3213	M3215	E3216	E3217	I3218	V3219	E3223	R3227	Y3228	T3229	Q3230	H3233	V3234	M3235	I3238	L3239	Y3245	R3248	W3249	K3250	E3251	N3256	R3260	T3266	A3267	L3268	N3269	S3270	E3271	H3272	M3273	L3277	I3280	L3281	Y3285	I3284	Y3285	L3288	G3289											
L3290	D3291	E3292	G3293	M3296	L3299	Q3304	T3307	L3314	L3315	H3318	F3319	L3320	P3321	L3322	K3323	E3324	K3325	L3326	K3327	K3328	T3332	H3333	V3334	E3337	ASP	HIS	LEU	LYS	GLU	ALA	GLU	GLY	ASP	MET	LEU	VAL	GLN	VAL	PHE	LEU	LEU	LEU	ILE	GLU	GLN	ASN	ASP	PHE	VAL	THR	THR	LEU	ALA	ARG
ASP	LEU	TYR	ALA	PHE	TYR	PRO	LEU	LEU	ILE	ARG	ILE	ASP	TRP	LEU	LYS	GLU	ASN	PRO	GLU	GLY	ALA	GLU	PHE	ASP	ARG	VAL	ILE	TRP	ARG	GLY	ASP	SER	MET	GLN	VAL	PHE	LEU	LEU	LEU	ILE	GLU	GLN	ASN	ASP	PHE	VAL	THR	THR	LEU	ALA	ARG			
ILE	ASN	ASN	MET	PHE	LEU	ALA	LEU	ILE	THR	ASN	THR	ALA	VAL	SER	GLN	ILE	ARG	LYS	GLY	MET	ALA	GLU	GLY	ASP	GLY	LEU	ILE	TRP	ILE	VAL	ALA	ALA	LEU	LYS	ARG	LEU	LEU	PRO	GLU	ILE	GLY	ASN	ASP	ILE	VAL	CYS	ALA	ASP	PRO	GLY				
ASP	GLN	GLU	LEU	ILE	ALA	LEU	ALA	LYS	ASN	ARG	THR	GLU	ASP	VAL	ARG	ASP	ILE	ARG	ARG	SER	ASN	ILE	GLN	LEU	GLY	LEU	ILE	TRP	TRP	GLN	MET	ALA	TYR	LEU	LYS	ASP	LEU	LEU	PRO	ASN	ARG	ARG	THR	ASP	THR	SER	ASP	PRO						
GLU	LYS	THR	VAL	GLU	ARG	VAL	ASP	ASP	ILE	ALA	LEU	GLU	GLN	LYS	VAL	ARG	GLY	ARG	ARG	HIS	TYR	CYS	LEU	VAL	VAL	HIS	LYS	ALA	VAL	TRP	TRP	MET	ALA	TYR	LEU	LYS	ASP	LEU	PRO	ASN	ARG	ARG	ALA	V3599	V3600	A3601	C3602	F3603	R3604					
M3605	R3615	K3639	L3640	I3641	E3650	P3651	F3652	E3653	E3654	D3655	E3656	G3657	T3658	K3659	L3664	I3668	L3687	K3697	C3699	H3700	D3701	E3702	GLU	ASP	ASP	GLY	GLU	GLU	E3710	M3719	A3729	R3730	L3731	H3732	I3744	S3747	L3793	L3796	M3797	N3806	A3807	T3821												
E3822	E3823	G3824	S3825	G3826	E3827	K3828	Q3831	F3835	L3846	F3854	Y3851	Q3852	E3853	E3854	D3855	E3856	G3857	T3858	K3859	L3664	I3668	L3687	K3697	C3699	H3700	D3701	E3702	GLU	ASP	ASP	GLY	GLU	GLU	E3710	M3719	A3729	R3730	L3731	H3732	I3744	S3747	L3793	L3796	M3797	N3806	A3807	T3821							

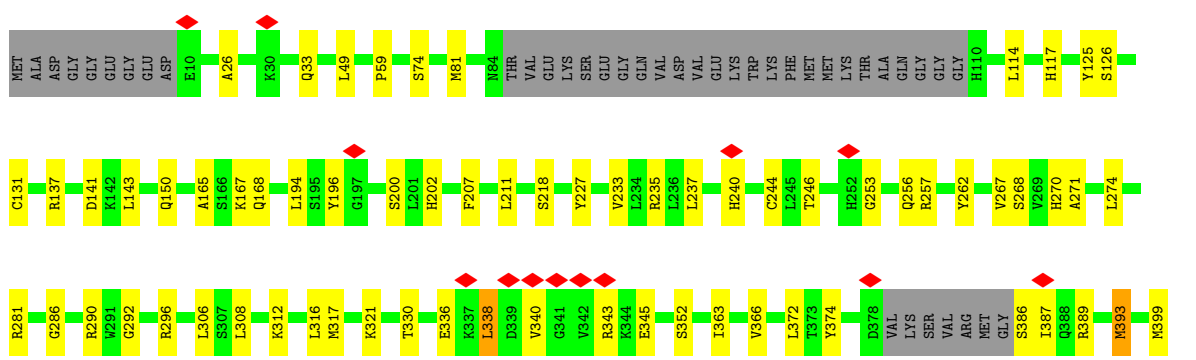


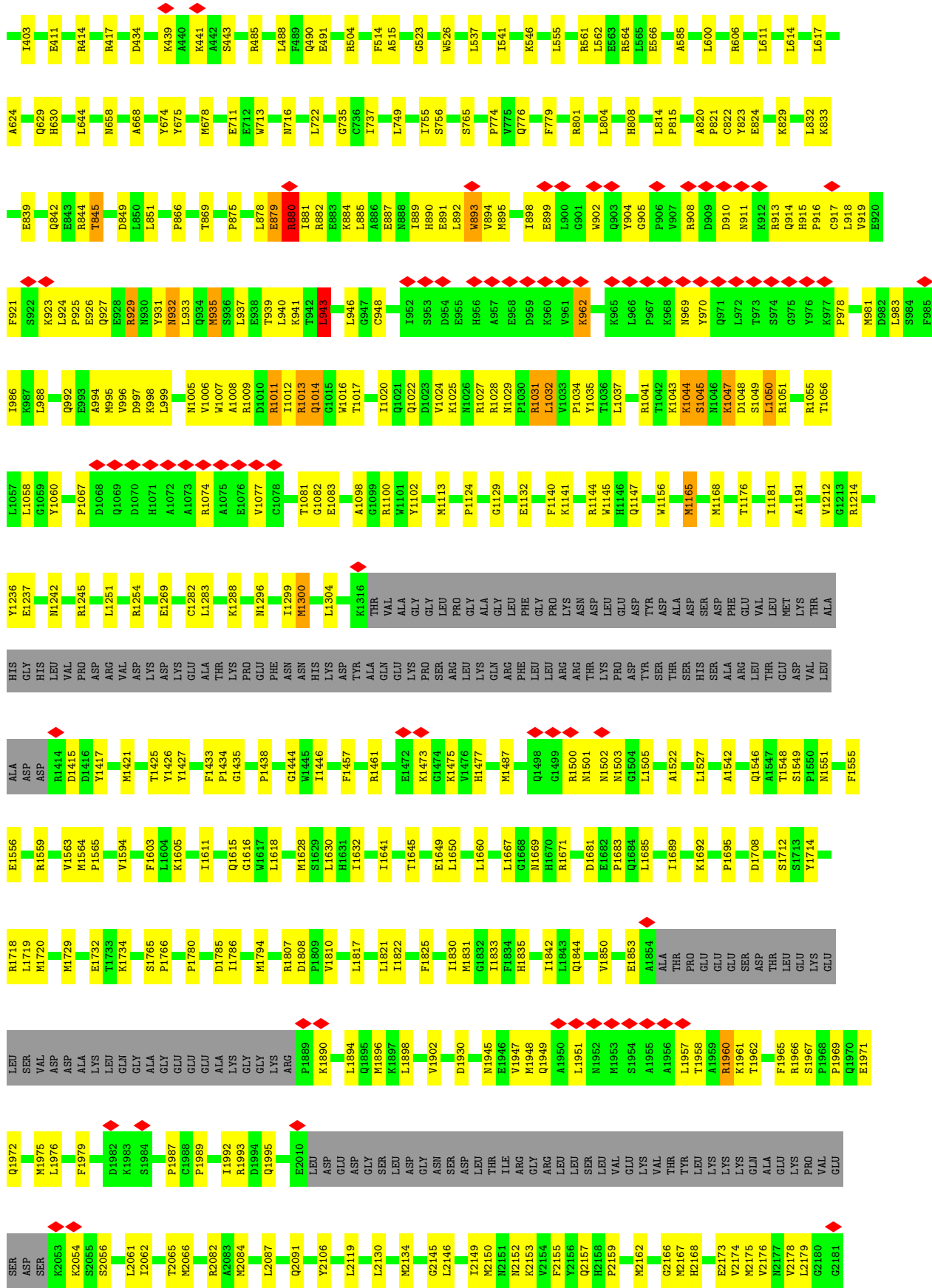
• Molecule 1: Ryanodine receptor 2

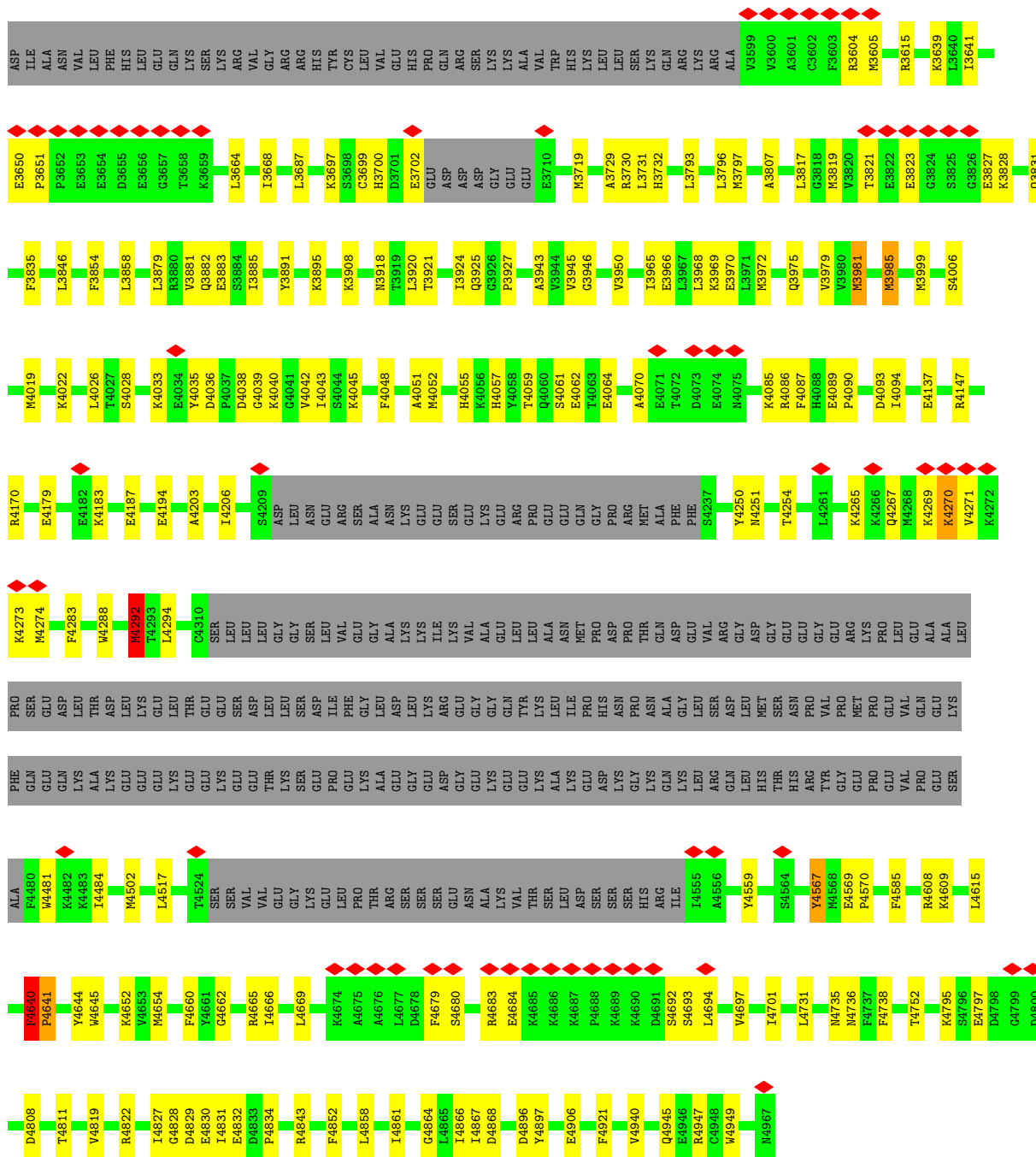




• Molecule 1: Ryanodine receptor 2

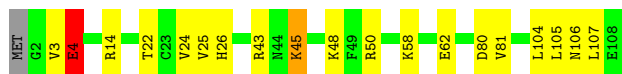






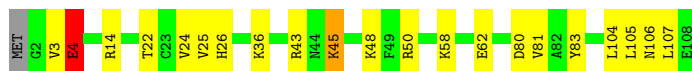
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain E: 81% 16%

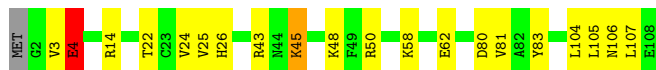
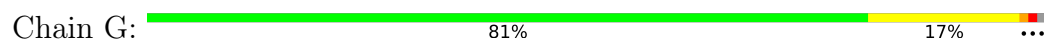


• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

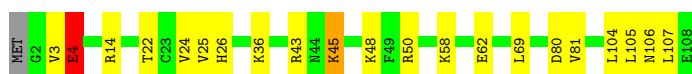
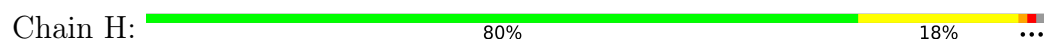
Chain F: 80% 18%



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



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



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C4	Depositor
Number of particles used	181724	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	0.623	Depositor
Minimum map value	-0.012	Depositor
Average map value	0.011	Depositor
Map value standard deviation	0.034	Depositor
Recommended contour level	0.12	Depositor
Map size (Å)	430.592, 430.592, 430.592	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.841, 0.841, 0.841	Depositor

5 Model quality i

5.1 Standard geometry i

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

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	0.26	0/34516	0.50	9/46623 (0.0%)
1	B	0.26	0/34516	0.50	9/46623 (0.0%)
1	C	0.26	0/34516	0.50	9/46623 (0.0%)
1	D	0.26	0/34516	0.50	9/46623 (0.0%)
2	E	0.29	0/834	0.56	1/1123 (0.1%)
2	F	0.29	0/834	0.56	1/1123 (0.1%)
2	G	0.29	0/834	0.56	1/1123 (0.1%)
2	H	0.29	0/834	0.56	1/1123 (0.1%)
All	All	0.26	0/141400	0.51	40/190984 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	5
1	B	0	5
1	C	0	5
1	D	0	5
All	All	0	20

There are no bond length outliers.

All (40) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	943	LEU	CA-CB-CG	12.40	143.83	115.30
1	C	943	LEU	CA-CB-CG	12.39	143.81	115.30
1	D	943	LEU	CA-CB-CG	12.39	143.81	115.30
1	B	943	LEU	CA-CB-CG	12.38	143.78	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	2734	MET	CA-CB-CG	9.25	129.03	113.30
1	A	2734	MET	CA-CB-CG	9.23	129.00	113.30
1	C	2734	MET	CA-CB-CG	9.22	128.98	113.30
1	D	2734	MET	CA-CB-CG	9.22	128.97	113.30
1	C	4640	PHE	C-N-CD	-7.99	103.03	120.60
1	A	4640	PHE	C-N-CD	-7.98	103.05	120.60
1	B	4640	PHE	C-N-CD	-7.98	103.05	120.60
1	D	4640	PHE	C-N-CD	-7.97	103.06	120.60
1	D	4292	MET	CA-CB-CG	6.95	125.11	113.30
1	A	4292	MET	CA-CB-CG	6.94	125.09	113.30
1	B	4292	MET	CA-CB-CG	6.94	125.09	113.30
1	C	4292	MET	CA-CB-CG	6.92	125.07	113.30
1	D	880	ARG	CG-CD-NE	6.10	124.61	111.80
1	C	880	ARG	CG-CD-NE	6.09	124.60	111.80
1	B	880	ARG	CG-CD-NE	6.09	124.58	111.80
1	A	880	ARG	CG-CD-NE	6.08	124.58	111.80
1	B	943	LEU	CB-CG-CD1	5.89	121.01	111.00
1	A	943	LEU	CB-CG-CD1	5.88	121.00	111.00
1	D	943	LEU	CB-CG-CD1	5.88	120.99	111.00
1	C	943	LEU	CB-CG-CD1	5.86	120.96	111.00
1	C	880	ARG	CB-CG-CD	-5.25	97.96	111.60
1	D	880	ARG	CB-CG-CD	-5.24	97.97	111.60
1	A	880	ARG	CB-CG-CD	-5.23	97.99	111.60
1	B	880	ARG	CB-CG-CD	-5.22	98.02	111.60
1	D	2734	MET	CB-CG-SD	5.18	127.95	112.40
1	C	2734	MET	CB-CG-SD	5.18	127.95	112.40
1	A	2734	MET	CB-CG-SD	5.18	127.93	112.40
1	B	2734	MET	CB-CG-SD	5.18	127.93	112.40
1	B	943	LEU	CB-CG-CD2	-5.11	102.31	111.00
1	C	943	LEU	CB-CG-CD2	-5.10	102.34	111.00
1	D	943	LEU	CB-CG-CD2	-5.08	102.36	111.00
1	A	943	LEU	CB-CG-CD2	-5.08	102.37	111.00
2	H	4	GLU	CA-CB-CG	5.01	124.42	113.40
2	G	4	GLU	CA-CB-CG	5.01	124.41	113.40
2	F	4	GLU	CA-CB-CG	5.00	124.41	113.40
2	E	4	GLU	CA-CB-CG	5.00	124.40	113.40

There are no chirality outliers.

All (20) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	2766	LYS	Peptide

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Mol	Chain	Res	Type	Group
1	A	439	LYS	Peptide
1	A	4640	PHE	Peptide
1	A	879	GLU	Peptide
1	A	880	ARG	Peptide
1	B	2766	LYS	Peptide
1	B	439	LYS	Peptide
1	B	4640	PHE	Peptide
1	B	879	GLU	Peptide
1	B	880	ARG	Peptide
1	C	2766	LYS	Peptide
1	C	439	LYS	Peptide
1	C	4640	PHE	Peptide
1	C	879	GLU	Peptide
1	C	880	ARG	Peptide
1	D	2766	LYS	Peptide
1	D	439	LYS	Peptide
1	D	4640	PHE	Peptide
1	D	879	GLU	Peptide
1	D	880	ARG	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	33774	0	33452	652	0
1	B	33774	0	33452	665	0
1	C	33774	0	33452	664	0
1	D	33774	0	33452	671	0
2	E	818	0	821	12	0
2	F	818	0	821	14	0
2	G	818	0	821	13	0
2	H	818	0	821	14	0
3	A	1	0	0	0	0
3	B	1	0	0	0	0
3	C	1	0	0	0	0
3	D	1	0	0	0	0
4	A	62	0	24	2	0
4	B	62	0	24	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	C	62	0	24	2	0
4	D	62	0	24	2	0
5	A	23	0	0	1	0
5	B	23	0	0	1	0
5	C	23	0	0	1	0
5	D	23	0	0	1	0
All	All	138712	0	137188	2637	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 10.

All (2637) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2779:LEU:HA	1:A:2782:MET:HG3	1.56	0.88
1:B:2779:LEU:HA	1:B:2782:MET:HG3	1.56	0.87
1:D:2779:LEU:HA	1:D:2782:MET:HG3	1.56	0.86
1:C:2779:LEU:HA	1:C:2782:MET:HG3	1.56	0.85
1:B:4279:MET:HE1	1:C:4488:GLN:HG2	1.57	0.85
2:F:4:GLU:OE1	2:F:4:GLU:N	2.13	0.82
2:E:4:GLU:N	2:E:4:GLU:OE1	2.13	0.81
2:H:4:GLU:OE1	2:H:4:GLU:N	2.13	0.81
1:C:2831:VAL:HG22	1:D:1435:GLY:HA2	1.63	0.80
2:G:4:GLU:OE1	2:G:4:GLU:N	2.13	0.80
1:B:3945:VAL:HG23	1:B:4006:SER:HB3	1.65	0.79
1:A:3945:VAL:HG23	1:A:4006:SER:HB3	1.65	0.79
1:C:4874:ARG:NH1	1:D:4868:ASP:OD1	2.16	0.79
1:D:3945:VAL:HG23	1:D:4006:SER:HB3	1.65	0.79
1:C:3945:VAL:HG23	1:C:4006:SER:HB3	1.65	0.78
1:B:1628:MET:HE3	1:B:1641:ILE:HG21	1.66	0.77
1:A:1628:MET:HE3	1:A:1641:ILE:HG21	1.66	0.77
1:C:1628:MET:HE3	1:C:1641:ILE:HG21	1.66	0.77
1:C:3171:LEU:HB3	1:C:3211:LEU:HB2	1.68	0.76
1:C:2832:THR:OG1	1:D:1548:THR:O	2.01	0.76
1:D:3284:ILE:HD11	1:D:3299:LEU:HD23	1.67	0.76
1:B:3171:LEU:HB3	1:B:3211:LEU:HB2	1.68	0.76
1:D:1628:MET:HE3	1:D:1641:ILE:HG21	1.66	0.76
1:A:3284:ILE:HD11	1:A:3299:LEU:HD23	1.67	0.75
1:C:3284:ILE:HD11	1:C:3299:LEU:HD23	1.67	0.75
1:D:3171:LEU:HB3	1:D:3211:LEU:HB2	1.68	0.74
1:B:1948:MET:HA	1:B:1951:LEU:HD23	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1948:MET:HA	1:A:1951:LEU:HD23	1.69	0.74
1:A:3171:LEU:HB3	1:A:3211:LEU:HB2	1.68	0.74
1:D:1948:MET:HA	1:D:1951:LEU:HD23	1.69	0.74
1:A:4829:ASP:OD1	1:D:4822:ARG:NH1	2.21	0.74
1:C:1948:MET:HA	1:C:1951:LEU:HD23	1.69	0.73
1:B:3284:ILE:HD11	1:B:3299:LEU:HD23	1.67	0.73
1:D:875:PRO:HD2	1:D:878:LEU:HD12	1.71	0.73
1:C:4665:ARG:HH21	1:C:4666:ILE:HD13	1.54	0.73
1:A:875:PRO:HD2	1:A:878:LEU:HD12	1.71	0.73
1:D:3325:LYS:HD3	1:D:3328:LYS:HE3	1.71	0.73
1:B:1947:VAL:HG12	1:B:1948:MET:HE2	1.70	0.73
1:A:913:ARG:O	1:A:914:GLN:NE2	2.22	0.72
1:B:4665:ARG:HH21	1:B:4666:ILE:HD13	1.54	0.72
1:A:3325:LYS:HD3	1:A:3328:LYS:HE3	1.71	0.72
1:C:312:LYS:NZ	1:C:393:MET:O	2.20	0.72
1:C:1947:VAL:HG12	1:C:1948:MET:HE2	1.71	0.72
1:D:4665:ARG:HH21	1:D:4666:ILE:HD13	1.54	0.72
1:A:2782:MET:HG2	1:A:2844:MET:HE1	1.71	0.72
1:D:1947:VAL:HG12	1:D:1948:MET:HE2	1.70	0.72
1:C:875:PRO:HD2	1:C:878:LEU:HD12	1.71	0.72
1:C:913:ARG:O	1:C:914:GLN:NE2	2.22	0.72
1:A:889:ILE:HA	1:A:892:LEU:HD12	1.72	0.71
1:B:4521:LYS:NZ	1:C:4808:ASP:HB2	2.04	0.71
1:C:3325:LYS:HD3	1:C:3328:LYS:HE3	1.71	0.71
1:D:889:ILE:HA	1:D:892:LEU:HD12	1.72	0.71
1:D:2782:MET:HG2	1:D:2844:MET:HE1	1.72	0.71
1:A:4665:ARG:HH21	1:A:4666:ILE:HD13	1.54	0.71
1:B:875:PRO:HD2	1:B:878:LEU:HD12	1.71	0.71
1:C:1245:ARG:NH1	1:C:1692:LYS:O	2.24	0.71
1:C:1896:MET:HB2	1:C:1898:LEU:HD11	1.72	0.71
1:A:1245:ARG:NH1	1:A:1692:LYS:O	2.24	0.71
1:A:1947:VAL:HG12	1:A:1948:MET:HE2	1.70	0.71
1:D:1245:ARG:NH1	1:D:1692:LYS:O	2.24	0.71
1:D:1896:MET:HB2	1:D:1898:LEU:HD11	1.72	0.71
1:B:1245:ARG:NH1	1:B:1692:LYS:O	2.24	0.71
1:B:913:ARG:O	1:B:914:GLN:NE2	2.22	0.71
1:B:3325:LYS:HD3	1:B:3328:LYS:HE3	1.71	0.71
1:D:2488:LEU:HD21	1:D:2548:LEU:HD22	1.73	0.71
1:A:2488:LEU:HD21	1:A:2548:LEU:HD22	1.73	0.70
1:B:312:LYS:NZ	1:B:393:MET:O	2.20	0.70
1:D:913:ARG:O	1:D:914:GLN:NE2	2.22	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:22:THR:HG22	2:G:50:ARG:HG2	1.74	0.70
1:A:4864:GLY:HA2	1:D:4867:ILE:HG12	1.73	0.70
2:F:22:THR:HG22	2:F:50:ARG:HG2	1.73	0.70
1:B:2185:LYS:O	1:B:2186:GLU:HG3	1.92	0.70
1:A:312:LYS:NZ	1:A:393:MET:O	2.20	0.70
1:B:2488:LEU:HD21	1:B:2548:LEU:HD22	1.73	0.70
1:C:889:ILE:HA	1:C:892:LEU:HD12	1.72	0.70
1:C:2488:LEU:HD21	1:C:2548:LEU:HD22	1.73	0.70
2:H:22:THR:HG22	2:H:50:ARG:HG2	1.74	0.70
1:B:2782:MET:HG2	1:B:2844:MET:HE1	1.73	0.70
1:C:2185:LYS:O	1:C:2186:GLU:HG3	1.92	0.70
1:B:889:ILE:HA	1:B:892:LEU:HD12	1.72	0.70
1:A:2185:LYS:O	1:A:2186:GLU:HG3	1.92	0.70
1:B:1896:MET:HB2	1:B:1898:LEU:HD11	1.72	0.69
1:B:3227:ARG:NH2	1:B:3291:ASP:OD1	2.25	0.69
1:C:3227:ARG:NH2	1:C:3291:ASP:OD1	2.25	0.69
1:A:1896:MET:HB2	1:A:1898:LEU:HD11	1.72	0.69
1:C:2782:MET:HG2	1:C:2844:MET:HE1	1.72	0.69
1:C:3719:MET:HG2	1:C:4680:SER:HB2	1.75	0.69
1:A:3227:ARG:HD3	1:A:3229:THR:H	1.58	0.69
2:E:22:THR:HG22	2:E:50:ARG:HG2	1.73	0.69
1:D:3227:ARG:HD3	1:D:3229:THR:H	1.58	0.69
1:A:3227:ARG:NH2	1:A:3291:ASP:OD1	2.25	0.69
1:A:3719:MET:HG2	1:A:4680:SER:HB2	1.75	0.69
1:D:3719:MET:HG2	1:D:4680:SER:HB2	1.75	0.69
1:D:2185:LYS:O	1:D:2186:GLU:HG3	1.92	0.69
1:B:3719:MET:HG2	1:B:4680:SER:HB2	1.75	0.69
1:D:2743:TYR:HD1	1:D:2757:MET:HB2	1.58	0.69
1:A:2743:TYR:HD1	1:A:2757:MET:HB2	1.58	0.68
1:D:312:LYS:NZ	1:D:393:MET:O	2.20	0.68
1:C:1435:GLY:H	1:C:1500:ARG:HH12	1.40	0.68
1:B:1011:ARG:HD3	1:B:1014:GLN:HE22	1.58	0.68
1:A:4652:LYS:NZ	1:A:4945:GLN:OE1	2.24	0.68
1:B:3227:ARG:HD3	1:B:3229:THR:H	1.58	0.68
1:C:4652:LYS:NZ	1:C:4945:GLN:OE1	2.24	0.68
1:C:3227:ARG:HD3	1:C:3229:THR:H	1.58	0.68
1:A:1435:GLY:H	1:A:1500:ARG:HH12	1.40	0.68
1:B:1435:GLY:H	1:B:1500:ARG:HH12	1.40	0.68
1:B:2943:PHE:O	1:B:2947:SER:HB3	1.94	0.68
1:C:2758:LYS:HB2	1:C:2762:LEU:HD23	1.76	0.68
1:D:3227:ARG:NH2	1:D:3291:ASP:OD1	2.25	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4293:THR:HG22	1:C:4714:PHE:CE2	2.29	0.68
1:D:2758:LYS:HB2	1:D:2762:LEU:HD23	1.76	0.68
1:A:2570:GLU:HG2	1:A:2605:MET:HG3	1.75	0.68
1:A:2758:LYS:HB2	1:A:2762:LEU:HD23	1.76	0.68
1:B:4652:LYS:NZ	1:B:4945:GLN:OE1	2.24	0.68
1:C:1011:ARG:HD3	1:C:1014:GLN:HE22	1.59	0.68
1:D:921:PHE:HB2	1:D:929:ARG:HG3	1.76	0.67
1:B:490:GLN:OE1	1:B:546:LYS:NZ	2.28	0.67
1:C:921:PHE:HB2	1:C:929:ARG:HG3	1.76	0.67
1:B:2570:GLU:HG2	1:B:2605:MET:HG3	1.75	0.67
1:C:2943:PHE:O	1:C:2947:SER:HB3	1.94	0.67
1:A:915:HIS:HD2	1:A:916:PRO:HD2	1.60	0.67
1:B:915:HIS:HD2	1:B:916:PRO:HD2	1.60	0.67
1:B:2934:ASP:O	1:B:2938:GLN:NE2	2.28	0.67
1:C:240:HIS:O	1:D:167:LYS:NZ	2.23	0.67
1:C:2743:TYR:HD1	1:C:2757:MET:HB2	1.58	0.67
1:D:2934:ASP:O	1:D:2938:GLN:NE2	2.28	0.67
1:B:2743:TYR:HD1	1:B:2757:MET:HB2	1.58	0.67
1:C:2934:ASP:O	1:C:2938:GLN:NE2	2.28	0.67
1:D:891:GLU:HA	1:D:894:VAL:HG22	1.77	0.67
1:D:2570:GLU:HG2	1:D:2605:MET:HG3	1.75	0.67
1:D:2943:PHE:O	1:D:2947:SER:HB3	1.94	0.67
1:D:4652:LYS:NZ	1:D:4945:GLN:OE1	2.24	0.67
1:B:2758:LYS:HB2	1:B:2762:LEU:HD23	1.76	0.67
1:D:915:HIS:CD2	1:D:916:PRO:HD2	2.30	0.67
1:D:1435:GLY:H	1:D:1500:ARG:HH12	1.40	0.67
1:A:2934:ASP:O	1:A:2938:GLN:NE2	2.28	0.67
1:D:3198:PRO:HG2	1:D:3204:VAL:HA	1.76	0.67
1:A:1011:ARG:HD3	1:A:1014:GLN:HE22	1.58	0.67
1:A:3198:PRO:HG2	1:A:3204:VAL:HA	1.76	0.67
1:B:4640:PHE:CD2	1:B:4641:PRO:HD3	2.30	0.67
1:C:490:GLN:OE1	1:C:546:LYS:NZ	2.28	0.67
1:C:2570:GLU:HG2	1:C:2605:MET:HG3	1.75	0.67
1:D:1242:ASN:HB3	1:D:1807:ARG:HG3	1.77	0.67
1:A:490:GLN:OE1	1:A:546:LYS:NZ	2.28	0.67
1:A:891:GLU:HA	1:A:894:VAL:HG22	1.77	0.67
1:A:915:HIS:CD2	1:A:916:PRO:HD2	2.30	0.67
1:A:2943:PHE:O	1:A:2947:SER:HB3	1.94	0.67
1:A:4085:LYS:NZ	1:A:4089:GLU:OE2	2.28	0.67
1:B:915:HIS:CD2	1:B:916:PRO:HD2	2.30	0.67
1:B:4293:THR:HG22	1:C:4714:PHE:HE2	1.60	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4085:LYS:NZ	1:C:4089:GLU:OE2	2.28	0.67
1:D:4640:PHE:CD2	1:D:4641:PRO:HD3	2.30	0.67
1:C:4640:PHE:CD2	1:C:4641:PRO:HD3	2.30	0.66
1:D:4085:LYS:NZ	1:D:4089:GLU:OE2	2.28	0.66
1:B:194:LEU:HD23	1:B:196:TYR:HE1	1.60	0.66
1:C:891:GLU:HA	1:C:894:VAL:HG22	1.77	0.66
1:D:1011:ARG:HD3	1:D:1014:GLN:HE22	1.59	0.66
1:B:891:GLU:HA	1:B:894:VAL:HG22	1.77	0.66
1:C:915:HIS:HD2	1:C:916:PRO:HD2	1.60	0.66
1:D:915:HIS:HD2	1:D:916:PRO:HD2	1.60	0.66
1:D:1766:PRO:HG3	1:D:1780:PRO:HB3	1.78	0.66
1:B:921:PHE:HB2	1:B:929:ARG:HG3	1.76	0.66
1:B:1242:ASN:HB3	1:B:1807:ARG:HG3	1.77	0.66
1:A:4640:PHE:CD2	1:A:4641:PRO:HD3	2.30	0.66
1:B:4040:LYS:NZ	1:B:4042:VAL:O	2.29	0.66
1:B:4818:TYR:HD1	1:C:4848:ILE:HD11	1.60	0.66
1:C:915:HIS:CD2	1:C:916:PRO:HD2	2.30	0.66
1:D:194:LEU:HD23	1:D:196:TYR:HE1	1.61	0.66
1:A:1766:PRO:HG3	1:A:1780:PRO:HB3	1.78	0.66
1:A:4040:LYS:NZ	1:A:4042:VAL:O	2.29	0.66
1:C:902:TRP:HH2	1:C:910:ASP:HA	1.61	0.66
1:C:2856:LYS:HE2	1:C:2868:HIS:HD2	1.61	0.66
1:C:3198:PRO:HG2	1:C:3204:VAL:HA	1.76	0.66
1:C:4292:MET:HE2	1:C:4292:MET:N	2.11	0.66
1:D:2856:LYS:HE2	1:D:2868:HIS:HD2	1.60	0.66
1:A:921:PHE:HB2	1:A:929:ARG:HG3	1.76	0.66
1:B:1766:PRO:HG3	1:B:1780:PRO:HB3	1.78	0.66
1:C:194:LEU:HD23	1:C:196:TYR:HE1	1.61	0.66
1:C:1766:PRO:HG3	1:C:1780:PRO:HB3	1.78	0.66
1:A:1242:ASN:HB3	1:A:1807:ARG:HG3	1.77	0.66
1:B:3198:PRO:HG2	1:B:3204:VAL:HA	1.76	0.66
1:B:629:GLN:OE1	1:B:1669:ASN:ND2	2.30	0.65
1:B:902:TRP:HH2	1:B:910:ASP:HA	1.61	0.65
1:B:4085:LYS:NZ	1:B:4089:GLU:OE2	2.28	0.65
1:C:629:GLN:OE1	1:C:1669:ASN:ND2	2.29	0.65
1:D:4040:LYS:NZ	1:D:4042:VAL:O	2.29	0.65
1:A:2856:LYS:HE2	1:A:2868:HIS:HD2	1.60	0.65
1:A:2788:ARG:NH2	1:A:2905:ARG:O	2.29	0.65
1:B:3050:LEU:HD23	1:B:3052:SER:H	1.61	0.65
1:A:194:LEU:HD23	1:A:196:TYR:HE1	1.61	0.65
1:A:902:TRP:HH2	1:A:910:ASP:HA	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2788:ARG:NH2	1:C:2905:ARG:O	2.29	0.65
1:D:4292:MET:HE2	1:D:4292:MET:N	2.11	0.65
1:A:4036:ASP:HB2	1:A:4043:ILE:HD13	1.79	0.65
1:B:2856:LYS:HE2	1:B:2868:HIS:HD2	1.61	0.65
1:C:4040:LYS:NZ	1:C:4042:VAL:O	2.29	0.65
1:D:2788:ARG:NH2	1:D:2905:ARG:O	2.30	0.65
1:D:4036:ASP:HB2	1:D:4043:ILE:HD13	1.79	0.65
1:B:4287:TYR:HE1	1:C:4591:TYR:CD2	2.15	0.65
1:C:3050:LEU:HD23	1:C:3052:SER:H	1.61	0.65
1:C:4036:ASP:HB2	1:C:4043:ILE:HD13	1.79	0.65
1:A:904:TYR:CE1	1:A:916:PRO:HA	2.32	0.65
1:B:4292:MET:N	1:B:4292:MET:HE2	2.12	0.65
1:D:629:GLN:OE1	1:D:1669:ASN:ND2	2.30	0.65
1:A:629:GLN:OE1	1:A:1669:ASN:ND2	2.30	0.65
1:D:1415:ASP:OD2	1:D:1559:ARG:NH2	2.30	0.65
1:D:3050:LEU:HD23	1:D:3052:SER:H	1.61	0.65
1:B:3034:HIS:CE1	1:B:3038:GLN:HE22	2.15	0.64
1:D:902:TRP:HH2	1:D:910:ASP:HA	1.61	0.64
1:B:2788:ARG:NH1	1:B:2904:SER:OG	2.30	0.64
1:B:2788:ARG:NH2	1:B:2905:ARG:O	2.30	0.64
1:C:1242:ASN:HB3	1:C:1807:ARG:HG3	1.77	0.64
1:C:2788:ARG:NH1	1:C:2904:SER:OG	2.30	0.64
1:B:904:TYR:CE1	1:B:916:PRO:HA	2.32	0.64
1:C:3034:HIS:CE1	1:C:3038:GLN:HE22	2.15	0.64
1:A:2830:ASN:OD1	1:B:1549:SER:HB2	1.97	0.64
1:B:4036:ASP:HB2	1:B:4043:ILE:HD13	1.79	0.64
1:A:2788:ARG:NH1	1:A:2904:SER:OG	2.30	0.64
1:A:3034:HIS:CE1	1:A:3038:GLN:HE22	2.15	0.64
1:C:904:TYR:CE1	1:C:916:PRO:HA	2.32	0.64
1:D:904:TYR:CE1	1:D:916:PRO:HA	2.32	0.64
1:D:3034:HIS:CE1	1:D:3038:GLN:HE22	2.15	0.64
1:A:1415:ASP:OD2	1:A:1559:ARG:NH2	2.30	0.64
1:A:4292:MET:HE2	1:A:4292:MET:N	2.12	0.64
1:B:1415:ASP:OD2	1:B:1559:ARG:NH2	2.30	0.64
1:B:2982:PHE:O	1:B:3001:LYS:NZ	2.31	0.64
1:C:1415:ASP:OD2	1:C:1559:ARG:NH2	2.30	0.64
1:C:2982:PHE:O	1:C:3001:LYS:NZ	2.31	0.64
1:C:4665:ARG:HH22	1:C:4669:LEU:HD22	1.63	0.64
1:A:2409:ILE:HD13	1:A:2420:ARG:HD2	1.80	0.64
1:B:1967:SER:O	1:B:1972:GLN:NE2	2.31	0.64
1:D:2409:ILE:HD13	1:D:2420:ARG:HD2	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2436:ILE:HA	1:A:2465:LYS:HD3	1.79	0.64
1:A:2982:PHE:O	1:A:3001:LYS:NZ	2.31	0.64
1:C:4862:ILE:HD13	1:D:4852:PHE:HE1	1.62	0.64
1:A:3050:LEU:HD23	1:A:3052:SER:H	1.61	0.64
1:B:363:ILE:HD11	1:B:403:ILE:HD13	1.80	0.64
1:B:801:ARG:NH1	1:B:1615:GLN:OE1	2.31	0.64
1:D:490:GLN:OE1	1:D:546:LYS:NZ	2.28	0.64
1:A:2856:LYS:HE2	1:A:2868:HIS:CD2	2.34	0.63
1:A:801:ARG:NH1	1:A:1615:GLN:OE1	2.31	0.63
1:A:1967:SER:O	1:A:1972:GLN:NE2	2.31	0.63
1:C:235:ARG:NE	1:C:268:SER:O	2.31	0.63
1:D:4187:GLU:OE2	1:D:4947:ARG:NH2	2.31	0.63
1:B:235:ARG:NE	1:B:268:SER:O	2.31	0.63
1:C:992:GLN:HA	1:C:995:MET:HE3	1.80	0.63
1:D:2202:TYR:O	1:D:2206:ILE:HG12	1.99	0.63
1:A:363:ILE:HD11	1:A:403:ILE:HD13	1.80	0.63
1:B:2202:TYR:O	1:B:2206:ILE:HG12	1.99	0.63
1:B:3188:SER:OG	1:B:3191:GLU:OE1	2.17	0.63
1:C:801:ARG:NH1	1:C:1615:GLN:OE1	2.31	0.63
1:D:801:ARG:NH1	1:D:1615:GLN:OE1	2.31	0.63
1:D:2788:ARG:NH1	1:D:2904:SER:OG	2.30	0.63
1:D:2856:LYS:HE2	1:D:2868:HIS:CD2	2.34	0.63
1:B:2062:ILE:O	1:B:2066:MET:HG2	1.99	0.63
1:C:3188:SER:OG	1:C:3191:GLU:OE1	2.17	0.63
1:C:4187:GLU:OE2	1:C:4947:ARG:NH2	2.31	0.63
1:D:126:SER:HA	1:D:414:ARG:HH12	1.63	0.63
1:A:2062:ILE:O	1:A:2066:MET:HG2	1.99	0.63
1:A:2202:TYR:O	1:A:2206:ILE:HG12	1.99	0.63
1:C:363:ILE:HD11	1:C:403:ILE:HD13	1.80	0.63
1:D:2436:ILE:HA	1:D:2465:LYS:HD3	1.79	0.63
1:B:4665:ARG:HH22	1:B:4669:LEU:HD22	1.63	0.63
1:B:2409:ILE:HD13	1:B:2420:ARG:HD2	1.80	0.63
1:C:2062:ILE:O	1:C:2066:MET:HG2	1.99	0.63
1:C:2409:ILE:HD13	1:C:2420:ARG:HD2	1.80	0.63
1:D:2062:ILE:O	1:D:2066:MET:HG2	1.99	0.63
1:D:3188:SER:OG	1:D:3191:GLU:OE1	2.17	0.63
1:D:4665:ARG:HH22	1:D:4669:LEU:HD22	1.63	0.63
1:A:4187:GLU:OE2	1:A:4947:ARG:NH2	2.31	0.62
1:C:1967:SER:O	1:C:1972:GLN:NE2	2.31	0.62
1:D:1967:SER:O	1:D:1972:GLN:NE2	2.31	0.62
1:D:2833:LEU:HB3	1:D:2837:LEU:HB2	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2982:PHE:O	1:D:3001:LYS:NZ	2.31	0.62
1:A:4665:ARG:HH22	1:A:4669:LEU:HD22	1.63	0.62
1:B:2436:ILE:HA	1:B:2465:LYS:HD3	1.79	0.62
1:C:2706:VAL:HG21	1:C:2785:TRP:HE1	1.65	0.62
1:C:2856:LYS:HE2	1:C:2868:HIS:CD2	2.34	0.62
1:A:992:GLN:HA	1:A:995:MET:HE3	1.80	0.62
1:A:3188:SER:OG	1:A:3191:GLU:OE1	2.17	0.62
1:A:3235:MET:HA	1:A:3239:LEU:HD12	1.82	0.62
1:C:2436:ILE:HA	1:C:2465:LYS:HD3	1.79	0.62
1:A:126:SER:HA	1:A:414:ARG:HH12	1.63	0.62
1:A:235:ARG:NE	1:A:268:SER:O	2.31	0.62
1:B:2706:VAL:HG21	1:B:2785:TRP:HE1	1.64	0.62
1:D:2706:VAL:HG21	1:D:2785:TRP:HE1	1.64	0.62
1:B:4187:GLU:OE2	1:B:4947:ARG:NH2	2.31	0.62
1:A:2833:LEU:HB3	1:A:2837:LEU:HB2	1.81	0.62
1:B:2274:LEU:HD21	1:B:2329:GLU:HG2	1.82	0.62
1:B:2856:LYS:HE2	1:B:2868:HIS:CD2	2.34	0.62
1:B:3235:MET:HA	1:B:3239:LEU:HD12	1.82	0.62
1:C:2627:TRP:HB2	1:C:2630:PHE:HB2	1.81	0.62
1:D:2274:LEU:HD21	1:D:2329:GLU:HG2	1.82	0.62
1:C:2202:TYR:O	1:C:2206:ILE:HG12	1.99	0.62
1:D:235:ARG:NE	1:D:268:SER:O	2.31	0.62
1:D:363:ILE:HD11	1:D:403:ILE:HD13	1.80	0.62
1:A:2274:LEU:HD21	1:A:2329:GLU:HG2	1.82	0.62
1:B:2627:TRP:HB2	1:B:2630:PHE:HB2	1.81	0.62
1:B:4170:ARG:NH1	4:B:5002:ATP:O2G	2.33	0.62
1:C:126:SER:HA	1:C:414:ARG:HH12	1.63	0.61
1:A:2706:VAL:HG21	1:A:2785:TRP:HE1	1.64	0.61
1:B:126:SER:HA	1:B:414:ARG:HH12	1.63	0.61
1:C:1961:LYS:HA	1:C:1961:LYS:HE3	1.83	0.61
1:C:3235:MET:HA	1:C:3239:LEU:HD12	1.82	0.61
1:D:3235:MET:HA	1:D:3239:LEU:HD12	1.82	0.61
1:B:2833:LEU:HB3	1:B:2837:LEU:HB2	1.81	0.61
1:C:1718:ARG:HD3	1:C:1831:MET:HA	1.83	0.61
1:B:992:GLN:HA	1:B:995:MET:HE3	1.82	0.61
1:C:2833:LEU:HB3	1:C:2837:LEU:HB2	1.81	0.61
1:A:4170:ARG:NH1	4:A:5002:ATP:O2G	2.33	0.61
1:D:2627:TRP:HB2	1:D:2630:PHE:HB2	1.81	0.61
1:D:4170:ARG:NH1	4:D:5002:ATP:O2G	2.33	0.61
1:D:1718:ARG:HD3	1:D:1831:MET:HA	1.83	0.61
1:A:2627:TRP:HB2	1:A:2630:PHE:HB2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2824:ARG:HH22	1:B:1503:ASN:HB2	1.66	0.61
1:A:2831:VAL:HG22	1:B:1435:GLY:HA2	1.81	0.61
1:B:1961:LYS:HE3	1:B:1961:LYS:HA	1.82	0.61
1:C:4170:ARG:NH1	4:C:5002:ATP:O2G	2.33	0.61
1:A:434:ASP:OD1	1:A:504:ARG:NH1	2.34	0.61
1:A:1718:ARG:HD3	1:A:1831:MET:HA	1.83	0.61
1:C:4903:HIS:HB3	1:D:4183:LYS:HZ1	1.66	0.61
1:D:1961:LYS:HA	1:D:1961:LYS:HE3	1.82	0.61
1:B:2734:MET:HE2	1:B:2823:PRO:HB2	1.83	0.60
1:A:3827:GLU:OE2	1:A:3831:GLN:NE2	2.35	0.60
1:B:434:ASP:OD1	1:B:504:ARG:NH1	2.34	0.60
1:B:1011:ARG:HA	1:B:1014:GLN:NE2	2.16	0.60
1:C:2274:LEU:HD21	1:C:2329:GLU:HG2	1.82	0.60
1:D:434:ASP:OD1	1:D:504:ARG:NH1	2.34	0.60
1:A:880:ARG:C	1:A:880:ARG:HD3	2.20	0.60
1:A:1129:GLY:HA3	1:A:1145:TRP:HB3	1.83	0.60
1:A:2539:GLU:OE2	1:A:2581:ARG:NE	2.35	0.60
1:B:1718:ARG:HD3	1:B:1831:MET:HA	1.83	0.60
1:C:434:ASP:OD1	1:C:504:ARG:NH1	2.34	0.60
1:D:3827:GLU:OE2	1:D:3831:GLN:NE2	2.35	0.60
1:A:1502:ASN:HB2	1:D:2824:ARG:NH1	2.16	0.60
2:F:26:HIS:CD2	2:F:105:LEU:HD11	2.36	0.60
2:G:26:HIS:CD2	2:G:105:LEU:HD11	2.36	0.60
1:C:1283:LEU:HB2	1:C:1555:PHE:HB2	1.84	0.60
1:D:992:GLN:HA	1:D:995:MET:HE3	1.82	0.60
1:D:1011:ARG:HA	1:D:1014:GLN:NE2	2.17	0.60
1:A:1011:ARG:HA	1:A:1014:GLN:NE2	2.17	0.60
1:A:1283:LEU:HB2	1:A:1555:PHE:HB2	1.84	0.60
1:A:2179:LEU:HD23	1:A:2187:ILE:HD13	1.84	0.60
1:B:2539:GLU:OE2	1:B:2581:ARG:NE	2.35	0.60
1:B:3827:GLU:OE2	1:B:3831:GLN:NE2	2.35	0.60
1:C:3639:LYS:HD2	1:C:4683:ARG:HH12	1.67	0.60
1:A:1961:LYS:HA	1:A:1961:LYS:HE3	1.82	0.60
2:H:26:HIS:CD2	2:H:105:LEU:HD11	2.37	0.60
1:B:2179:LEU:HD23	1:B:2187:ILE:HD13	1.84	0.60
1:C:962:LYS:HE3	1:C:981:MET:HG2	1.84	0.60
1:D:1283:LEU:HB2	1:D:1555:PHE:HB2	1.84	0.60
1:B:1129:GLY:HA3	1:B:1145:TRP:HB3	1.83	0.60
1:C:2179:LEU:HD23	1:C:2187:ILE:HD13	1.84	0.60
1:D:908:ARG:HH22	1:D:925:PRO:HG3	1.66	0.60
1:D:1129:GLY:HA3	1:D:1145:TRP:HB3	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2539:GLU:OE2	1:D:2581:ARG:NE	2.35	0.60
1:B:962:LYS:HE3	1:B:981:MET:HG2	1.84	0.60
1:C:3184:TYR:O	1:C:3192:ARG:NH2	2.35	0.60
1:C:3827:GLU:OE2	1:C:3831:GLN:NE2	2.35	0.60
1:D:2684:ASN:ND2	1:D:2911:GLU:O	2.35	0.60
2:E:26:HIS:CD2	2:E:105:LEU:HD11	2.36	0.59
1:B:2684:ASN:ND2	1:B:2911:GLU:O	2.35	0.59
1:D:2179:LEU:HD23	1:D:2187:ILE:HD13	1.84	0.59
1:A:908:ARG:HH2	1:A:925:PRO:HG3	1.66	0.59
1:A:4567:TYR:O	1:A:4570:PRO:HD2	2.03	0.59
1:B:3184:TYR:O	1:B:3192:ARG:NH2	2.35	0.59
1:C:1129:GLY:HA3	1:C:1145:TRP:HB3	1.83	0.59
1:D:2130:LEU:HD21	1:D:2173:GLU:HG3	1.85	0.59
1:A:2684:ASN:ND2	1:A:2911:GLU:O	2.35	0.59
1:B:908:ARG:HH2	1:B:925:PRO:HG3	1.66	0.59
1:C:1011:ARG:HA	1:C:1014:GLN:NE2	2.17	0.59
1:C:2539:GLU:OE2	1:C:2581:ARG:NE	2.35	0.59
1:D:4267:GLN:O	1:D:4270:LYS:HG3	2.02	0.59
1:A:2296:GLU:HG3	1:A:2390:THR:HG22	1.85	0.59
1:A:4035:TYR:HE2	1:A:4051:ALA:HA	1.67	0.59
1:A:4267:GLN:O	1:A:4270:LYS:HG3	2.02	0.59
1:B:3639:LYS:HD2	1:B:4683:ARG:HH12	1.67	0.59
1:C:2296:GLU:HG3	1:C:2390:THR:HG22	1.85	0.59
1:C:4567:TYR:O	1:C:4570:PRO:HD2	2.03	0.59
1:B:880:ARG:C	1:B:880:ARG:HD3	2.20	0.59
1:B:2296:GLU:HG3	1:B:2390:THR:HG22	1.85	0.59
1:B:4035:TYR:HE2	1:B:4051:ALA:HA	1.67	0.59
1:C:2130:LEU:HD21	1:C:2173:GLU:HG3	1.85	0.59
1:B:1283:LEU:HB2	1:B:1555:PHE:HB2	1.84	0.59
1:B:4567:TYR:O	1:B:4570:PRO:HD2	2.03	0.59
1:D:916:PRO:O	1:D:919:VAL:HG22	2.03	0.59
1:D:962:LYS:HE3	1:D:981:MET:HG2	1.84	0.59
1:D:2296:GLU:HG3	1:D:2390:THR:HG22	1.85	0.59
1:A:253:GLY:HA3	1:A:256:GLN:NE2	2.18	0.59
1:A:3296:MET:HB3	1:A:3334:VAL:HG22	1.84	0.59
1:B:4267:GLN:O	1:B:4270:LYS:HG3	2.02	0.59
1:C:2684:ASN:ND2	1:C:2911:GLU:O	2.35	0.59
1:C:3296:MET:HB3	1:C:3334:VAL:HG22	1.84	0.59
1:A:2130:LEU:HD21	1:A:2173:GLU:HG3	1.85	0.59
1:A:3639:LYS:HD2	1:A:4683:ARG:HH12	1.67	0.59
1:D:253:GLY:HA3	1:D:256:GLN:NE2	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:962:LYS:HE3	1:A:981:MET:HG2	1.84	0.59
1:B:2130:LEU:HD21	1:B:2173:GLU:HG3	1.85	0.59
1:B:4028:SER:O	1:B:4033:LYS:NZ	2.36	0.59
1:B:4056:LYS:HE2	1:C:4660:PHE:CE1	2.37	0.59
1:C:916:PRO:O	1:C:919:VAL:HG22	2.03	0.59
1:C:4028:SER:O	1:C:4033:LYS:NZ	2.36	0.59
1:C:4267:GLN:O	1:C:4270:LYS:HG3	2.02	0.59
1:D:3184:TYR:O	1:D:3192:ARG:NH2	2.35	0.59
1:D:4035:TYR:HE2	1:D:4051:ALA:HA	1.67	0.59
1:D:4569:GLU:HB3	1:D:4570:PRO:HD3	1.85	0.59
1:B:253:GLY:HA3	1:B:256:GLN:NE2	2.18	0.58
1:C:4035:TYR:HE2	1:C:4051:ALA:HA	1.67	0.58
1:B:3127:GLN:HG2	1:B:3183:ILE:HB	1.85	0.58
1:D:3639:LYS:HD2	1:D:4683:ARG:HH12	1.67	0.58
1:D:4028:SER:O	1:D:4033:LYS:NZ	2.36	0.58
1:A:4028:SER:O	1:A:4033:LYS:NZ	2.36	0.58
1:A:1011:ARG:HB2	1:A:1032:LEU:HD21	1.86	0.58
1:A:3184:TYR:O	1:A:3192:ARG:NH2	2.35	0.58
1:B:1011:ARG:HB2	1:B:1032:LEU:HD21	1.86	0.58
1:B:2241:ASP:OD1	1:B:2297:ARG:NH2	2.37	0.58
1:A:4569:GLU:HB3	1:A:4570:PRO:HD3	1.85	0.58
1:C:2241:ASP:OD1	1:C:2297:ARG:NH2	2.37	0.58
1:D:2682:GLU:OE2	1:D:2919:LYS:HD3	2.03	0.58
1:D:2704:GLN:HA	1:D:2854:LYS:HE2	1.85	0.58
1:A:916:PRO:O	1:A:919:VAL:HG22	2.03	0.58
1:A:2682:GLU:OE2	1:A:2919:LYS:HD3	2.03	0.58
1:A:2704:GLN:HA	1:A:2854:LYS:HE2	1.85	0.58
1:D:902:TRP:HZ2	1:D:915:HIS:HB2	1.69	0.58
1:D:3127:GLN:HG2	1:D:3183:ILE:HB	1.85	0.58
1:B:2682:GLU:OE2	1:B:2919:LYS:HD3	2.03	0.58
1:C:882:ARG:HH11	1:C:933:LEU:HD11	1.69	0.58
1:D:233:VAL:HG12	1:D:274:LEU:HD22	1.86	0.58
1:A:3216:GLU:HA	1:A:3219:VAL:HG12	1.86	0.58
1:B:1011:ARG:HH11	1:B:1014:GLN:HE22	1.50	0.58
1:B:3296:MET:HB3	1:B:3334:VAL:HG22	1.84	0.58
1:C:908:ARG:HH22	1:C:925:PRO:HG3	1.66	0.58
1:D:3296:MET:HB3	1:D:3334:VAL:HG22	1.84	0.58
1:D:4567:TYR:O	1:D:4570:PRO:HD2	2.03	0.58
1:C:253:GLY:HA3	1:C:256:GLN:NE2	2.18	0.58
1:C:902:TRP:HZ2	1:C:915:HIS:HB2	1.69	0.58
1:C:3216:GLU:HA	1:C:3219:VAL:HG12	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:882:ARG:HH11	1:A:933:LEU:HD11	1.69	0.58
1:A:1549:SER:HB2	1:D:2830:ASN:OD1	2.04	0.58
1:A:3127:GLN:HG2	1:A:3183:ILE:HB	1.85	0.58
1:B:4569:GLU:HB3	1:B:4570:PRO:HD3	1.85	0.58
1:D:880:ARG:HD3	1:D:880:ARG:C	2.20	0.58
1:D:2179:LEU:HD22	1:D:2227:VAL:HG21	1.86	0.58
1:D:3005:THR:HG22	1:D:3040:LEU:HD22	1.86	0.58
1:B:564:ARG:HB3	1:B:566:GLU:HG2	1.86	0.57
1:B:2179:LEU:HD22	1:B:2227:VAL:HG21	1.86	0.57
1:B:2704:GLN:HA	1:B:2854:LYS:HE2	1.85	0.57
1:B:3005:THR:HG22	1:B:3040:LEU:HD22	1.86	0.57
1:C:2682:GLU:OE2	1:C:2919:LYS:HD3	2.03	0.57
1:C:2704:GLN:HA	1:C:2854:LYS:HE2	1.85	0.57
1:B:882:ARG:HH11	1:B:933:LEU:HD11	1.69	0.57
1:B:3216:GLU:HA	1:B:3219:VAL:HG12	1.86	0.57
1:B:4521:LYS:HZ2	1:C:4808:ASP:HB2	1.69	0.57
1:C:924:LEU:HG	1:C:925:PRO:HD2	1.87	0.57
1:C:1014:GLN:HB3	1:C:1027:ARG:HH21	1.70	0.57
1:C:2179:LEU:HD22	1:C:2227:VAL:HG21	1.86	0.57
1:A:924:LEU:HG	1:A:925:PRO:HD2	1.86	0.57
1:B:1176:THR:HG22	1:B:1181:ILE:HD13	1.87	0.57
1:C:564:ARG:HB3	1:C:566:GLU:HG2	1.87	0.57
1:A:713:TRP:HH2	1:A:1251:LEU:HD21	1.69	0.57
1:A:2179:LEU:HD22	1:A:2227:VAL:HG21	1.86	0.57
1:B:1014:GLN:HB3	1:B:1027:ARG:HH21	1.69	0.57
1:C:1011:ARG:HH11	1:C:1014:GLN:HE22	1.50	0.57
1:C:3127:GLN:HG2	1:C:3183:ILE:HB	1.85	0.57
1:A:233:VAL:HG12	1:A:274:LEU:HD22	1.86	0.57
1:B:713:TRP:HH2	1:B:1251:LEU:HD21	1.69	0.57
1:B:924:LEU:HG	1:B:925:PRO:HD2	1.86	0.57
1:D:890:HIS:NE2	1:D:924:LEU:HD13	2.20	0.57
1:A:1011:ARG:HH11	1:A:1014:GLN:HE22	1.50	0.57
1:A:1014:GLN:HB3	1:A:1027:ARG:HH21	1.70	0.57
1:C:233:VAL:HG12	1:C:274:LEU:HD22	1.86	0.57
1:C:4569:GLU:HB3	1:C:4570:PRO:HD3	1.85	0.57
1:B:2629:ASN:OD1	1:B:2630:PHE:N	2.38	0.57
1:D:2629:ASN:OD1	1:D:2630:PHE:N	2.38	0.57
1:D:3216:GLU:HA	1:D:3219:VAL:HG12	1.86	0.57
1:A:2222:LEU:HA	1:A:2225:SER:HB3	1.87	0.57
1:A:4822:ARG:NH1	1:B:4829:ASP:OD1	2.38	0.57
1:C:890:HIS:NE2	1:C:924:LEU:HD13	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3005:THR:HG22	1:C:3040:LEU:HD22	1.85	0.57
1:D:1014:GLN:HB3	1:D:1027:ARG:HH21	1.70	0.57
1:A:2241:ASP:OD1	1:A:2297:ARG:NH2	2.37	0.57
1:A:3005:THR:HG22	1:A:3040:LEU:HD22	1.86	0.57
1:B:3890:TRP:HB3	1:C:76:ARG:HG2	1.87	0.57
1:C:829:LYS:NZ	1:C:1037:LEU:O	2.38	0.57
1:C:3985:MET:HB3	1:C:3999:MET:HE1	1.87	0.57
1:D:829:LYS:NZ	1:D:1037:LEU:O	2.38	0.57
1:D:882:ARG:HH11	1:D:933:LEU:HD11	1.69	0.57
1:D:2241:ASP:OD1	1:D:2297:ARG:NH2	2.37	0.57
1:A:4765:LYS:HE3	1:D:4752:THR:HG21	1.87	0.57
1:B:902:TRP:HZ2	1:B:915:HIS:HB2	1.69	0.57
1:B:2743:TYR:CD1	1:B:2757:MET:HB2	2.40	0.57
1:C:2629:ASN:OD1	1:C:2630:PHE:N	2.38	0.57
1:D:935:MET:HB2	4:D:5003:ATP:H2	1.70	0.57
1:D:3985:MET:HB3	1:D:3999:MET:HE1	1.87	0.57
1:B:829:LYS:NZ	1:B:1037:LEU:O	2.38	0.56
1:C:2743:TYR:CD1	1:C:2757:MET:HB2	2.40	0.56
1:D:1011:ARG:HB2	1:D:1032:LEU:HD21	1.86	0.56
1:D:3277:LEU:O	1:D:3281:LEU:HG	2.05	0.56
1:B:233:VAL:HG12	1:B:274:LEU:HD22	1.86	0.56
1:B:890:HIS:NE2	1:B:924:LEU:HD13	2.19	0.56
1:C:935:MET:HB2	4:C:5003:ATP:H2	1.70	0.56
1:D:165:ALA:HB1	1:D:211:LEU:HD22	1.87	0.56
1:D:924:LEU:HG	1:D:925:PRO:HD2	1.86	0.56
1:A:564:ARG:HB3	1:A:566:GLU:HG2	1.86	0.56
1:A:829:LYS:NZ	1:A:1037:LEU:O	2.38	0.56
1:A:890:HIS:NE2	1:A:924:LEU:HD13	2.19	0.56
2:E:25:VAL:HG12	2:E:104:LEU:HA	1.87	0.56
2:F:25:VAL:HG12	2:F:104:LEU:HA	1.87	0.56
1:B:916:PRO:O	1:B:919:VAL:HG22	2.03	0.56
1:C:1176:THR:HG22	1:C:1181:ILE:HD13	1.87	0.56
1:C:4045:LYS:NZ	1:C:4070:ALA:O	2.38	0.56
1:C:4867:ILE:HG12	1:D:4864:GLY:CA	2.34	0.56
1:A:4048:PHE:O	1:A:4052:MET:HG2	2.06	0.56
1:C:1011:ARG:HB2	1:C:1032:LEU:HD21	1.85	0.56
1:C:2066:MET:CE	1:C:2084:MET:HG2	2.36	0.56
1:D:1176:THR:HG22	1:D:1181:ILE:HD13	1.87	0.56
1:D:4045:LYS:NZ	1:D:4070:ALA:O	2.38	0.56
1:D:4137:GLU:HG2	1:D:4147:ARG:HG2	1.88	0.56
1:A:2054:LYS:HE2	1:A:2056:SER:HA	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4045:LYS:NZ	1:B:4070:ALA:O	2.38	0.56
1:D:1011:ARG:HH11	1:D:1014:GLN:HE22	1.50	0.56
1:A:844:ARG:NH1	1:A:845:THR:HG23	2.21	0.56
1:A:902:TRP:HZ2	1:A:915:HIS:HB2	1.69	0.56
1:A:2629:ASN:OD1	1:A:2630:PHE:N	2.38	0.56
1:A:3277:LEU:O	1:A:3281:LEU:HG	2.05	0.56
1:A:4831:ILE:HG13	1:A:4843:ARG:NH2	2.21	0.56
1:B:2054:LYS:HE2	1:B:2056:SER:HA	1.88	0.56
1:B:2222:LEU:HA	1:B:2225:SER:HB3	1.87	0.56
1:B:3277:LEU:O	1:B:3281:LEU:HG	2.05	0.56
1:C:4048:PHE:O	1:C:4052:MET:HG2	2.06	0.56
1:D:564:ARG:HB3	1:D:566:GLU:HG2	1.87	0.56
1:D:2054:LYS:HE2	1:D:2056:SER:HA	1.88	0.56
2:H:25:VAL:HG12	2:H:104:LEU:HA	1.87	0.56
1:C:713:TRP:HH2	1:C:1251:LEU:HD21	1.69	0.56
1:D:844:ARG:NH1	1:D:845:THR:HG23	2.21	0.56
1:A:4045:LYS:NZ	1:A:4070:ALA:O	2.38	0.56
1:B:935:MET:HB2	4:B:5003:ATP:H2	1.70	0.56
1:B:2764:SER:HB3	1:B:2767:GLU:OE1	2.05	0.56
1:C:2834:SER:H	1:C:2837:LEU:HD12	1.71	0.56
1:D:2852:TRP:HA	1:D:2855:LYS:HG2	1.88	0.56
1:A:2764:SER:HB3	1:A:2767:GLU:OE1	2.06	0.56
1:A:3151:GLN:N	1:A:3151:GLN:OE1	2.39	0.56
1:B:774:PRO:O	1:B:776:GLN:NE2	2.39	0.56
1:C:889:ILE:HA	1:C:892:LEU:HB2	1.88	0.56
1:D:1245:ARG:NH2	1:D:1808:ASP:OD1	2.37	0.56
1:D:3070:LYS:O	1:D:3074:ASN:ND2	2.39	0.56
1:D:4048:PHE:O	1:D:4052:MET:HG2	2.06	0.56
1:D:4921:PHE:HE2	1:D:4940:VAL:HG11	1.71	0.56
1:A:4137:GLU:HG2	1:A:4147:ARG:HG2	1.88	0.56
1:A:4921:PHE:HE2	1:A:4940:VAL:HG11	1.71	0.56
1:C:2054:LYS:HE2	1:C:2056:SER:HA	1.88	0.56
1:C:2852:TRP:HA	1:C:2855:LYS:HG2	1.88	0.56
1:C:4137:GLU:HG2	1:C:4147:ARG:HG2	1.88	0.56
1:D:2764:SER:HB3	1:D:2767:GLU:OE1	2.06	0.56
1:A:2066:MET:CE	1:A:2084:MET:HG2	2.36	0.55
1:B:1502:ASN:OD1	1:B:1503:ASN:N	2.39	0.55
1:C:774:PRO:O	1:C:776:GLN:NE2	2.39	0.55
1:C:2764:SER:HB3	1:C:2767:GLU:OE1	2.06	0.55
1:D:713:TRP:HH2	1:D:1251:LEU:HD21	1.69	0.55
1:D:2734:MET:HE2	1:D:2823:PRO:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:935:MET:HB2	4:A:5003:ATP:H2	1.70	0.55
1:A:2834:SER:H	1:A:2837:LEU:HD12	1.71	0.55
1:A:2852:TRP:HA	1:A:2855:LYS:HG2	1.88	0.55
1:A:3070:LYS:O	1:A:3074:ASN:ND2	2.39	0.55
1:B:2066:MET:CE	1:B:2084:MET:HG2	2.36	0.55
1:B:2852:TRP:HA	1:B:2855:LYS:HG2	1.88	0.55
1:B:4831:ILE:HG13	1:B:4843:ARG:NH2	2.21	0.55
1:C:844:ARG:NH1	1:C:845:THR:HG23	2.21	0.55
1:C:3070:LYS:O	1:C:3074:ASN:ND2	2.39	0.55
1:C:3151:GLN:OE1	1:C:3151:GLN:N	2.39	0.55
1:D:4831:ILE:HG13	1:D:4843:ARG:NH2	2.21	0.55
1:A:165:ALA:HB1	1:A:211:LEU:HD22	1.87	0.55
1:A:2743:TYR:CD1	1:A:2757:MET:HB2	2.40	0.55
2:G:25:VAL:HG12	2:G:104:LEU:HA	1.87	0.55
1:C:880:ARG:C	1:C:880:ARG:HD3	2.20	0.55
1:C:1502:ASN:OD1	1:C:1503:ASN:N	2.39	0.55
1:C:4921:PHE:HE2	1:C:4940:VAL:HG11	1.71	0.55
1:D:2222:LEU:HA	1:D:2225:SER:HB3	1.87	0.55
1:A:3315:LEU:HD12	1:A:3319:PHE:HB2	1.88	0.55
1:C:2830:ASN:HB3	1:D:1434:PRO:O	2.06	0.55
1:A:374:TYR:HB2	1:A:389:ARG:HD3	1.89	0.55
1:B:165:ALA:HB1	1:B:211:LEU:HD22	1.87	0.55
1:C:4831:ILE:HG13	1:C:4843:ARG:NH2	2.21	0.55
1:D:2834:SER:H	1:D:2837:LEU:HD12	1.71	0.55
1:A:774:PRO:O	1:A:776:GLN:NE2	2.39	0.55
1:A:1176:THR:HG22	1:A:1181:ILE:HD13	1.87	0.55
1:A:1245:ARG:NH2	1:A:1808:ASP:OD1	2.37	0.55
1:A:1502:ASN:OD1	1:A:1503:ASN:N	2.39	0.55
1:B:2834:SER:H	1:B:2837:LEU:HD12	1.71	0.55
1:D:374:TYR:HB2	1:D:389:ARG:HD3	1.89	0.55
1:A:2619:LYS:HA	1:A:2623:LEU:HD13	1.89	0.55
1:B:4048:PHE:O	1:B:4052:MET:HG2	2.06	0.55
1:C:2413:LYS:NZ	1:C:2415:GLU:OE1	2.40	0.55
1:C:3214:LEU:O	1:C:3217:GLU:HG3	2.07	0.55
1:D:1502:ASN:OD1	1:D:1503:ASN:N	2.39	0.55
1:B:844:ARG:NH1	1:B:845:THR:HG23	2.21	0.55
1:B:1144:ARG:NH1	1:B:1191:ALA:O	2.40	0.55
1:B:2413:LYS:NZ	1:B:2415:GLU:OE1	2.40	0.55
1:C:165:ALA:HB1	1:C:211:LEU:HD22	1.87	0.55
1:C:1017:THR:O	1:C:1028:ARG:HA	2.07	0.55
1:C:3277:LEU:O	1:C:3281:LEU:HG	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3281:LEU:HD13	1:C:3322:LEU:HD13	1.89	0.55
1:D:2743:TYR:CD1	1:D:2757:MET:HB2	2.40	0.55
1:A:3985:MET:HB3	1:A:3999:MET:HE1	1.87	0.55
1:A:4559:TYR:OH	1:B:4790:ARG:NH2	2.35	0.55
1:B:131:CYS:SG	1:B:150:GLN:HB2	2.47	0.55
1:B:889:ILE:HA	1:B:892:LEU:HB2	1.88	0.55
1:B:2619:LYS:HA	1:B:2623:LEU:HD13	1.89	0.55
1:C:3281:LEU:O	1:C:3285:TYR:HD1	1.90	0.55
1:D:2066:MET:CE	1:D:2084:MET:HG2	2.36	0.55
1:D:2413:LYS:NZ	1:D:2415:GLU:OE1	2.40	0.55
1:D:2765:GLU:OE2	1:D:2772:ARG:NH1	2.40	0.55
1:B:3985:MET:HB3	1:B:3999:MET:HE1	1.88	0.55
1:B:4137:GLU:HG2	1:B:4147:ARG:HG2	1.88	0.55
1:C:1081:THR:OG1	1:C:1082:GLY:N	2.40	0.55
1:C:2619:LYS:HA	1:C:2623:LEU:HD13	1.89	0.55
1:C:2898:ILE:HG23	1:D:1501:ASN:OD1	2.06	0.55
1:A:3284:ILE:HG21	1:A:3334:VAL:HG21	1.89	0.54
1:B:1017:THR:O	1:B:1028:ARG:HA	2.07	0.54
1:B:3070:LYS:O	1:B:3074:ASN:ND2	2.39	0.54
1:B:3151:GLN:OE1	1:B:3151:GLN:N	2.39	0.54
1:B:3214:LEU:O	1:B:3217:GLU:HG3	2.07	0.54
1:B:3281:LEU:O	1:B:3285:TYR:HD1	1.90	0.54
1:B:3284:ILE:HG21	1:B:3334:VAL:HG21	1.89	0.54
1:C:131:CYS:SG	1:C:150:GLN:HB2	2.47	0.54
1:D:1081:THR:OG1	1:D:1082:GLY:N	2.40	0.54
1:D:3281:LEU:HD13	1:D:3322:LEU:HD13	1.89	0.54
1:A:3281:LEU:HD13	1:A:3322:LEU:HD13	1.89	0.54
1:C:2222:LEU:HA	1:C:2225:SER:HB3	1.87	0.54
1:A:2413:LYS:NZ	1:A:2415:GLU:OE1	2.40	0.54
1:A:2734:MET:HE2	1:A:2823:PRO:HB2	1.90	0.54
1:B:4921:PHE:HE2	1:B:4940:VAL:HG11	1.71	0.54
1:C:2496:LEU:HD23	1:C:2520:LEU:HD13	1.90	0.54
1:C:3284:ILE:HG21	1:C:3334:VAL:HG21	1.89	0.54
1:D:774:PRO:O	1:D:776:GLN:NE2	2.39	0.54
1:D:2619:LYS:HA	1:D:2623:LEU:HD13	1.89	0.54
1:D:3151:GLN:N	1:D:3151:GLN:OE1	2.39	0.54
1:D:3214:LEU:O	1:D:3217:GLU:HG3	2.07	0.54
1:A:658:ASN:ND2	1:A:833:LYS:HG2	2.23	0.54
1:A:1144:ARG:NH1	1:A:1191:ALA:O	2.40	0.54
1:B:658:ASN:ND2	1:B:833:LYS:HG2	2.23	0.54
1:A:889:ILE:HA	1:A:892:LEU:HB2	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1898:LEU:HD23	1:C:1902:VAL:HG11	1.89	0.54
1:D:889:ILE:HA	1:D:892:LEU:HB2	1.88	0.54
1:D:3284:ILE:HG21	1:D:3334:VAL:HG21	1.89	0.54
1:A:995:MET:O	1:A:999:LEU:HD23	2.08	0.54
1:A:4288:TRP:O	1:A:4292:MET:HE3	2.07	0.54
1:C:1844:GLN:O	1:C:1890:LYS:NZ	2.41	0.54
1:C:2917:ILE:HG23	1:C:2920:ARG:HD3	1.90	0.54
1:C:4867:ILE:HG12	1:D:4864:GLY:HA2	1.90	0.54
1:A:983:LEU:HD13	1:A:986:ILE:HD13	1.90	0.54
1:B:3144:LYS:HE3	1:B:3144:LYS:HA	1.90	0.54
1:C:374:TYR:HB2	1:C:389:ARG:HD3	1.89	0.54
1:C:2765:GLU:OE2	1:C:2772:ARG:NH1	2.40	0.54
1:C:3315:LEU:HD12	1:C:3319:PHE:HB2	1.88	0.54
1:D:131:CYS:SG	1:D:150:GLN:HB2	2.47	0.54
1:D:1034:PRO:HG2	1:D:1037:LEU:HD13	1.90	0.54
1:D:2496:LEU:HD23	1:D:2520:LEU:HD13	1.90	0.54
1:D:3281:LEU:O	1:D:3285:TYR:HD1	1.90	0.54
1:A:2765:GLU:OE2	1:A:2772:ARG:NH1	2.40	0.54
1:B:2917:ILE:HG23	1:B:2920:ARG:HD3	1.90	0.54
1:C:1245:ARG:NH2	1:C:1808:ASP:OD1	2.37	0.54
1:C:3144:LYS:HA	1:C:3144:LYS:HE3	1.90	0.54
1:D:983:LEU:HD13	1:D:986:ILE:HD13	1.90	0.54
1:D:2891:ASP:OD1	1:D:2892:ILE:N	2.41	0.54
1:A:131:CYS:SG	1:A:150:GLN:HB2	2.47	0.54
1:A:3281:LEU:O	1:A:3285:TYR:HD1	1.90	0.54
1:B:374:TYR:HB2	1:B:389:ARG:HD3	1.89	0.54
1:C:997:ASP:HA	1:C:1047:LYS:CE	2.38	0.54
1:C:1719:LEU:HD21	1:C:1830:ILE:HD12	1.90	0.54
1:D:1898:LEU:HD23	1:D:1902:VAL:HG11	1.89	0.54
1:D:3144:LYS:HA	1:D:3144:LYS:HE3	1.90	0.54
1:A:1898:LEU:HD23	1:A:1902:VAL:HG11	1.89	0.54
1:B:1081:THR:OG1	1:B:1082:GLY:N	2.40	0.54
1:B:3315:LEU:HD12	1:B:3319:PHE:HB2	1.88	0.54
1:B:4288:TRP:O	1:B:4292:MET:HE3	2.07	0.54
1:C:1144:ARG:NH1	1:C:1191:ALA:O	2.40	0.54
1:D:3315:LEU:HD12	1:D:3319:PHE:HB2	1.88	0.54
1:A:1017:THR:O	1:A:1028:ARG:HA	2.07	0.53
1:A:1100:ARG:HB3	1:A:1236:TYR:CD1	2.44	0.53
1:A:2917:ILE:HG23	1:A:2920:ARG:HD3	1.90	0.53
1:B:1100:ARG:HB3	1:B:1236:TYR:CD1	2.44	0.53
1:B:3281:LEU:HD13	1:B:3322:LEU:HD13	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1034:PRO:HG2	1:C:1037:LEU:HD13	1.90	0.53
1:D:1144:ARG:NH1	1:D:1191:ALA:O	2.40	0.53
1:D:4026:LEU:HD13	1:D:4055:HIS:CG	2.44	0.53
1:A:1844:GLN:O	1:A:1890:LYS:NZ	2.41	0.53
1:A:2496:LEU:HD23	1:A:2520:LEU:HD13	1.90	0.53
1:A:2891:ASP:OD1	1:A:2892:ILE:N	2.41	0.53
1:B:2891:ASP:OD1	1:B:2892:ILE:N	2.41	0.53
1:C:644:LEU:HD13	1:C:1630:LEU:HD21	1.90	0.53
1:B:995:MET:O	1:B:999:LEU:HD23	2.08	0.53
1:B:997:ASP:HA	1:B:1047:LYS:CE	2.38	0.53
1:C:658:ASN:ND2	1:C:833:LYS:HG2	2.23	0.53
1:D:997:ASP:HA	1:D:1047:LYS:CE	2.38	0.53
1:D:1100:ARG:HB3	1:D:1236:TYR:CD1	2.44	0.53
1:A:3144:LYS:HA	1:A:3144:LYS:HE3	1.90	0.53
1:A:3214:LEU:O	1:A:3217:GLU:HG3	2.07	0.53
1:A:4026:LEU:HD13	1:A:4055:HIS:CG	2.44	0.53
1:C:218:SER:HB3	1:C:286:GLY:HA3	1.91	0.53
1:D:3214:LEU:O	1:D:3218:ILE:HG12	2.09	0.53
1:A:614:LEU:HA	1:A:617:LEU:HD12	1.91	0.53
1:B:2496:LEU:HD23	1:B:2520:LEU:HD13	1.90	0.53
1:B:4026:LEU:HD13	1:B:4055:HIS:CG	2.44	0.53
1:C:983:LEU:HD13	1:C:986:ILE:HD13	1.90	0.53
1:C:4026:LEU:HD13	1:C:4055:HIS:CG	2.44	0.53
1:B:1898:LEU:HD23	1:B:1902:VAL:HG11	1.89	0.53
1:B:2765:GLU:OE2	1:B:2772:ARG:NH1	2.40	0.53
1:C:515:ALA:HB2	1:C:523:GLY:HA3	1.90	0.53
1:C:995:MET:O	1:C:999:LEU:HD23	2.08	0.53
1:C:1100:ARG:HB3	1:C:1236:TYR:CD1	2.44	0.53
1:C:2087:LEU:O	1:C:2091:GLN:HG2	2.09	0.53
1:C:4819:VAL:HG12	1:C:4830:GLU:HG3	1.91	0.53
1:A:644:LEU:HD13	1:A:1630:LEU:HD21	1.90	0.53
1:A:1719:LEU:HD21	1:A:1830:ILE:HD12	1.90	0.53
1:A:2176:VAL:HA	1:A:2179:LEU:HD12	1.90	0.53
1:A:2824:ARG:NH2	1:B:1503:ASN:HB2	2.23	0.53
1:A:3011:LEU:HB3	1:A:3033:LEU:HD21	1.91	0.53
1:B:983:LEU:HD13	1:B:986:ILE:HD13	1.90	0.53
1:B:4819:VAL:HG12	1:B:4830:GLU:HG3	1.91	0.53
1:D:1844:GLN:O	1:D:1890:LYS:NZ	2.41	0.53
1:D:2204:CYS:SG	1:D:2214:MET:HG2	2.49	0.53
1:A:4267:GLN:O	1:A:4271:VAL:HG12	2.09	0.53
1:B:3214:LEU:O	1:B:3218:ILE:HG12	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4288:TRP:O	1:C:4292:MET:HE3	2.08	0.53
1:D:3002:GLU:HG2	1:D:3053:VAL:HG21	1.91	0.53
1:A:218:SER:HB3	1:A:286:GLY:HA3	1.91	0.53
1:A:246:THR:HG21	1:A:267:VAL:HG21	1.91	0.53
1:A:1034:PRO:HG2	1:A:1037:LEU:HD13	1.90	0.53
1:A:2741:TRP:CE3	1:A:2754:GLN:HB2	2.44	0.53
1:A:4819:VAL:HG12	1:A:4830:GLU:HG3	1.91	0.53
1:B:1719:LEU:HD21	1:B:1830:ILE:HD12	1.90	0.53
1:B:1844:GLN:O	1:B:1890:LYS:NZ	2.41	0.53
1:B:4086:ARG:HH21	1:B:4087:PHE:HE2	1.55	0.53
1:C:2741:TRP:CE3	1:C:2754:GLN:HB2	2.44	0.53
1:C:3011:LEU:HB3	1:C:3033:LEU:HD21	1.91	0.53
1:D:644:LEU:HD13	1:D:1630:LEU:HD21	1.90	0.53
1:D:4819:VAL:HG12	1:D:4830:GLU:HG3	1.91	0.53
1:B:218:SER:HB3	1:B:286:GLY:HA3	1.91	0.53
1:B:2176:VAL:HA	1:B:2179:LEU:HD12	1.91	0.53
1:C:4267:GLN:O	1:C:4271:VAL:HG12	2.09	0.53
1:D:218:SER:HB3	1:D:286:GLY:HA3	1.91	0.53
1:D:515:ALA:HB2	1:D:523:GLY:HA3	1.90	0.53
1:D:2087:LEU:O	1:D:2091:GLN:HG2	2.09	0.53
1:B:4737:PHE:CD1	1:C:4783:VAL:HG13	2.44	0.52
1:D:658:ASN:ND2	1:D:833:LYS:HG2	2.23	0.52
1:D:1017:THR:O	1:D:1028:ARG:HA	2.07	0.52
1:D:3796:LEU:HD22	1:D:3835:PHE:HZ	1.74	0.52
1:A:997:ASP:HA	1:A:1047:LYS:CE	2.38	0.52
1:A:1102:TYR:HD1	1:A:1165:MET:HG2	1.75	0.52
1:A:3796:LEU:HD22	1:A:3835:PHE:HZ	1.74	0.52
1:A:4086:ARG:HH21	1:A:4087:PHE:HE2	1.55	0.52
1:B:1245:ARG:NH2	1:B:1808:ASP:OD1	2.37	0.52
1:B:4735:ASN:HB3	1:B:4738:PHE:CD2	2.44	0.52
1:C:2378:GLU:OE2	1:C:2378:GLU:N	2.40	0.52
1:D:1719:LEU:HD21	1:D:1830:ILE:HD12	1.90	0.52
1:B:1034:PRO:HG2	1:B:1037:LEU:HD13	1.90	0.52
1:C:3002:GLU:HG2	1:C:3053:VAL:HG21	1.91	0.52
1:C:4086:ARG:HH21	1:C:4087:PHE:HE2	1.55	0.52
1:D:995:MET:O	1:D:999:LEU:HD23	2.08	0.52
1:D:2232:PRO:HG3	1:D:2382:ILE:HD11	1.92	0.52
1:D:2917:ILE:HG23	1:D:2920:ARG:HD3	1.90	0.52
1:A:988:LEU:HD13	1:A:1055:ARG:HE	1.74	0.52
1:A:2087:LEU:O	1:A:2091:GLN:HG2	2.09	0.52
1:A:2341:ASN:OD1	1:A:2342:GLY:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2741:TRP:CE3	1:B:2754:GLN:HB2	2.44	0.52
1:B:4267:GLN:O	1:B:4271:VAL:HG12	2.09	0.52
1:C:2341:ASN:OD1	1:C:2342:GLY:N	2.42	0.52
1:C:2891:ASP:OD1	1:C:2892:ILE:N	2.41	0.52
1:C:3119:GLU:OE2	1:C:3248:ARG:NH2	2.43	0.52
1:D:1102:TYR:HD1	1:D:1165:MET:HG2	1.75	0.52
1:D:2341:ASN:OD1	1:D:2342:GLY:N	2.42	0.52
1:D:2741:TRP:CE3	1:D:2754:GLN:HB2	2.44	0.52
1:D:4267:GLN:O	1:D:4271:VAL:HG12	2.09	0.52
1:A:2204:CYS:SG	1:A:2214:MET:HG2	2.49	0.52
2:E:24:VAL:HG22	2:E:48:LYS:HG2	1.92	0.52
1:B:1425:THR:HG22	1:B:1563:VAL:HG13	1.92	0.52
1:B:2830:ASN:HB3	1:C:1434:PRO:O	2.09	0.52
1:B:3002:GLU:HG2	1:B:3053:VAL:HG21	1.91	0.52
1:C:1425:THR:HG22	1:C:1563:VAL:HG13	1.92	0.52
1:C:2723:LYS:O	1:C:2726:GLU:HG3	2.10	0.52
1:D:988:LEU:HD13	1:D:1055:ARG:HE	1.75	0.52
1:D:2723:LYS:O	1:D:2726:GLU:HG3	2.10	0.52
1:D:4735:ASN:HB3	1:D:4738:PHE:CD2	2.44	0.52
1:A:2642:ARG:HH12	1:A:2921:PHE:HA	1.75	0.52
1:A:3002:GLU:HG2	1:A:3053:VAL:HG21	1.91	0.52
1:B:2173:GLU:HA	1:B:2176:VAL:HG12	1.92	0.52
1:B:2204:CYS:SG	1:B:2214:MET:HG2	2.49	0.52
1:C:246:THR:HG21	1:C:267:VAL:HG21	1.91	0.52
1:C:614:LEU:HA	1:C:617:LEU:HD12	1.91	0.52
1:D:678:MET:SD	1:D:801:ARG:NH2	2.83	0.52
1:A:3119:GLU:OE2	1:A:3248:ARG:NH2	2.43	0.52
1:A:3214:LEU:O	1:A:3218:ILE:HG12	2.09	0.52
1:B:614:LEU:HA	1:B:617:LEU:HD12	1.91	0.52
1:B:3011:LEU:HB3	1:B:3033:LEU:HD21	1.91	0.52
1:B:4827:ILE:O	1:B:4831:ILE:HG12	2.10	0.52
1:C:2232:PRO:HG3	1:C:2382:ILE:HD11	1.92	0.52
1:C:3214:LEU:O	1:C:3218:ILE:HG12	2.09	0.52
1:D:2176:VAL:HA	1:D:2179:LEU:HD12	1.91	0.52
1:D:3639:LYS:HA	1:D:4683:ARG:NH1	2.25	0.52
1:A:2550:HIS:CE1	1:A:2875:ASP:HB3	2.45	0.52
1:A:3187:LYS:NZ	1:A:3191:GLU:HB3	2.25	0.52
1:B:515:ALA:HB2	1:B:523:GLY:HA3	1.90	0.52
1:B:644:LEU:HD13	1:B:1630:LEU:HD21	1.90	0.52
1:B:3891:TYR:O	1:B:3895:LYS:NZ	2.40	0.52
1:B:4521:LYS:HZ3	1:C:4808:ASP:HB2	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2173:GLU:HA	1:C:2176:VAL:HG12	1.92	0.52
1:C:2642:ARG:HH12	1:C:2921:PHE:HA	1.75	0.52
1:C:3639:LYS:HA	1:C:4683:ARG:NH1	2.25	0.52
1:D:824:GLU:HG2	1:D:1020:ILE:HG22	1.91	0.52
1:D:3119:GLU:OE2	1:D:3248:ARG:NH2	2.43	0.52
1:A:515:ALA:HB2	1:A:523:GLY:HA3	1.90	0.52
1:A:678:MET:SD	1:A:801:ARG:NH2	2.83	0.52
1:A:2215:PHE:CG	1:A:2253:LEU:HD22	2.45	0.52
1:B:491:GLU:OE2	1:B:546:LYS:NZ	2.39	0.52
1:B:3187:LYS:O	1:B:3188:SER:OG	2.28	0.52
1:B:3187:LYS:NZ	1:B:3191:GLU:HB3	2.25	0.52
1:B:3639:LYS:HA	1:B:4683:ARG:NH1	2.25	0.52
1:C:988:LEU:HD13	1:C:1055:ARG:HE	1.75	0.52
1:C:1011:ARG:HD3	1:C:1014:GLN:NE2	2.24	0.52
1:D:611:LEU:HD22	1:D:1660:LEU:HD22	1.92	0.52
1:D:894:VAL:HG23	1:D:895:MET:HE2	1.92	0.52
1:D:1957:LEU:O	1:D:1961:LYS:HG2	2.10	0.52
1:D:2589:LEU:O	1:D:2593:VAL:HG13	2.10	0.52
1:D:4086:ARG:HH21	1:D:4087:PHE:HE2	1.56	0.52
1:A:281:ARG:CZ	1:A:345:GLU:HG2	2.40	0.52
1:A:948:CYS:HA	1:A:1067:PRO:HD3	1.92	0.52
1:A:1011:ARG:HD3	1:A:1014:GLN:NE2	2.24	0.52
1:A:3639:LYS:HA	1:A:4683:ARG:NH1	2.25	0.52
1:A:4827:ILE:O	1:A:4831:ILE:HG12	2.10	0.52
1:A:4834:PRO:HB3	1:A:4843:ARG:HG2	1.92	0.52
1:B:2087:LEU:O	1:B:2091:GLN:HG2	2.09	0.52
1:C:281:ARG:CZ	1:C:345:GLU:HG2	2.40	0.52
1:C:948:CYS:HA	1:C:1067:PRO:HD3	1.92	0.52
1:C:2215:PHE:CG	1:C:2253:LEU:HD22	2.45	0.52
1:C:3796:LEU:HD22	1:C:3835:PHE:HZ	1.74	0.52
1:D:614:LEU:HA	1:D:617:LEU:HD12	1.91	0.52
1:D:2173:GLU:HA	1:D:2176:VAL:HG12	1.92	0.52
2:F:24:VAL:HG22	2:F:48:LYS:HG2	1.92	0.51
1:B:2550:HIS:CE1	1:B:2875:ASP:HB3	2.45	0.51
1:B:2589:LEU:O	1:B:2593:VAL:HG13	2.10	0.51
1:B:3293:GLY:N	1:B:3296:MET:HE1	2.25	0.51
1:C:866:PRO:HD2	1:C:1009:ARG:NH2	2.25	0.51
1:C:1102:TYR:HD1	1:C:1165:MET:HG2	1.75	0.51
1:C:1957:LEU:O	1:C:1961:LYS:HG2	2.10	0.51
1:C:2204:CYS:SG	1:C:2214:MET:HG2	2.49	0.51
1:C:2550:HIS:CE1	1:C:2875:ASP:HB3	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4735:ASN:HB3	1:C:4738:PHE:CD2	2.44	0.51
1:C:4827:ILE:O	1:C:4831:ILE:HG12	2.10	0.51
1:D:1011:ARG:HD3	1:D:1014:GLN:NE2	2.24	0.51
1:A:143:LEU:HD23	1:A:207:PHE:HE2	1.76	0.51
1:A:2824:ARG:NH1	1:B:1502:ASN:HB2	2.25	0.51
1:A:3807:ALA:HB1	1:A:3828:LYS:HE3	1.92	0.51
2:H:24:VAL:HG22	2:H:48:LYS:HG2	1.92	0.51
1:B:253:GLY:O	1:B:257:ARG:HG2	2.11	0.51
1:B:281:ARG:CZ	1:B:345:GLU:HG2	2.40	0.51
1:B:678:MET:SD	1:B:801:ARG:NH2	2.83	0.51
1:B:824:GLU:HG2	1:B:1020:ILE:HG22	1.91	0.51
1:B:1102:TYR:HD1	1:B:1165:MET:HG2	1.74	0.51
1:B:1958:THR:O	1:B:1962:THR:HG22	2.11	0.51
1:B:2642:ARG:HH12	1:B:2921:PHE:HA	1.75	0.51
1:B:2758:LYS:HD2	1:B:2762:LEU:HG	1.92	0.51
1:C:1958:THR:O	1:C:1962:THR:HG22	2.11	0.51
1:C:2174:VAL:O	1:C:2178:VAL:HG23	2.10	0.51
1:D:4288:TRP:O	1:D:4292:MET:HE3	2.09	0.51
1:A:3293:GLY:N	1:A:3296:MET:HE1	2.25	0.51
1:B:2341:ASN:OD1	1:B:2342:GLY:N	2.42	0.51
1:B:2723:LYS:O	1:B:2726:GLU:HG3	2.10	0.51
1:B:3119:GLU:OE2	1:B:3248:ARG:NH2	2.43	0.51
1:B:3796:LEU:HD22	1:B:3835:PHE:HZ	1.75	0.51
1:B:4279:MET:HE1	1:C:4488:GLN:CG	2.35	0.51
1:C:330:THR:HG23	1:C:366:VAL:HG22	1.93	0.51
1:C:3187:LYS:NZ	1:C:3191:GLU:HB3	2.25	0.51
1:C:3314:LEU:O	1:C:3318:HIS:HB2	2.11	0.51
1:C:3891:TYR:O	1:C:3895:LYS:NZ	2.40	0.51
1:D:281:ARG:CZ	1:D:345:GLU:HG2	2.40	0.51
1:D:3187:LYS:NZ	1:D:3191:GLU:HB3	2.25	0.51
1:A:866:PRO:HD2	1:A:1009:ARG:NH2	2.25	0.51
1:A:2119:LEU:HB2	1:A:2152:ASN:ND2	2.25	0.51
1:A:2173:GLU:HA	1:A:2176:VAL:HG12	1.92	0.51
1:A:2232:PRO:HG3	1:A:2382:ILE:HD11	1.92	0.51
1:A:2723:LYS:O	1:A:2726:GLU:HG3	2.10	0.51
1:A:3134:LEU:HB2	1:A:3162:PHE:CE2	2.46	0.51
1:B:2938:GLN:O	1:B:2942:GLU:HG2	2.11	0.51
1:C:1016:TRP:CG	1:C:1027:ARG:HB3	2.45	0.51
1:C:2176:VAL:HA	1:C:2179:LEU:HD12	1.90	0.51
1:C:2589:LEU:O	1:C:2593:VAL:HG13	2.10	0.51
1:C:2734:MET:HE2	1:C:2823:PRO:HB2	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2789:ILE:HD11	1:C:2896:LEU:HD11	1.93	0.51
1:C:3134:LEU:HB2	1:C:3162:PHE:CE2	2.46	0.51
1:D:330:THR:HG23	1:D:366:VAL:HG22	1.93	0.51
1:D:948:CYS:HA	1:D:1067:PRO:HD3	1.92	0.51
1:D:1425:THR:HG22	1:D:1563:VAL:HG13	1.92	0.51
1:A:824:GLU:HG2	1:A:1020:ILE:HG22	1.91	0.51
1:B:330:THR:HG23	1:B:366:VAL:HG22	1.93	0.51
1:B:2119:LEU:HB2	1:B:2152:ASN:ND2	2.25	0.51
1:B:2215:PHE:CG	1:B:2253:LEU:HD22	2.45	0.51
1:C:363:ILE:HD13	1:C:372:LEU:HD23	1.93	0.51
1:C:894:VAL:HG23	1:C:895:MET:HE2	1.93	0.51
1:C:2119:LEU:HB2	1:C:2152:ASN:ND2	2.25	0.51
1:C:2938:GLN:O	1:C:2942:GLU:HG2	2.11	0.51
1:C:3293:GLY:N	1:C:3296:MET:HE1	2.25	0.51
1:D:902:TRP:HE3	1:D:913:ARG:HH11	1.59	0.51
1:D:3807:ALA:HB1	1:D:3828:LYS:HE3	1.92	0.51
1:A:330:THR:HG23	1:A:366:VAL:HG22	1.93	0.51
1:A:895:MET:HA	1:A:898:ILE:HG22	1.93	0.51
1:A:1957:LEU:O	1:A:1961:LYS:HG2	2.10	0.51
1:A:2589:LEU:O	1:A:2593:VAL:HG13	2.10	0.51
1:A:2758:LYS:HD2	1:A:2762:LEU:HG	1.92	0.51
1:A:4735:ASN:HB3	1:A:4738:PHE:CD2	2.44	0.51
1:B:1029:ASN:HB3	1:B:1032:LEU:HD12	1.93	0.51
1:B:2174:VAL:O	1:B:2178:VAL:HG23	2.10	0.51
1:B:3807:ALA:HB1	1:B:3828:LYS:HE3	1.92	0.51
1:C:253:GLY:O	1:C:257:ARG:HG2	2.11	0.51
1:C:491:GLU:OE2	1:C:546:LYS:NZ	2.39	0.51
1:C:4679:PHE:CZ	1:C:4684:GLU:HG2	2.46	0.51
1:D:246:THR:HG21	1:D:267:VAL:HG21	1.91	0.51
1:D:2215:PHE:CG	1:D:2253:LEU:HD22	2.45	0.51
1:D:2635:GLU:HA	1:D:2638:LEU:HD12	1.93	0.51
1:D:2642:ARG:HH12	1:D:2921:PHE:HA	1.75	0.51
1:D:3314:LEU:O	1:D:3318:HIS:HB2	2.11	0.51
1:A:1425:THR:HG22	1:A:1563:VAL:HG13	1.92	0.51
1:A:1958:THR:O	1:A:1962:THR:HG22	2.11	0.51
1:B:555:LEU:HD11	1:B:585:ALA:HB1	1.93	0.51
1:B:894:VAL:HG23	1:B:895:MET:HE2	1.92	0.51
1:B:1016:TRP:CG	1:B:1027:ARG:HB3	2.45	0.51
1:B:2232:PRO:HG3	1:B:2382:ILE:HD11	1.92	0.51
1:B:2789:ILE:HD11	1:B:2896:LEU:HD11	1.93	0.51
1:B:3134:LEU:HB2	1:B:3162:PHE:CE2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1029:ASN:HB3	1:C:1032:LEU:HD12	1.93	0.51
1:C:2830:ASN:HD22	1:D:1433:PHE:HB3	1.75	0.51
1:D:1016:TRP:CG	1:D:1027:ARG:HB3	2.46	0.51
1:D:1029:ASN:HB3	1:D:1032:LEU:HD12	1.93	0.51
1:D:1958:THR:O	1:D:1962:THR:HG22	2.11	0.51
1:D:3011:LEU:HB3	1:D:3033:LEU:HD21	1.91	0.51
1:D:3293:GLY:N	1:D:3296:MET:HE1	2.25	0.51
1:B:143:LEU:HD23	1:B:207:PHE:HE2	1.76	0.51
1:B:246:THR:HG21	1:B:267:VAL:HG21	1.91	0.51
1:C:824:GLU:HG2	1:C:1020:ILE:HG22	1.91	0.51
1:D:2550:HIS:CE1	1:D:2875:ASP:HB3	2.45	0.51
1:D:3729:ALA:HA	1:D:3732:HIS:CD2	2.46	0.51
1:A:363:ILE:HD13	1:A:372:LEU:HD23	1.93	0.51
1:A:902:TRP:HE3	1:A:913:ARG:HH11	1.59	0.51
1:A:1016:TRP:CG	1:A:1027:ARG:HB3	2.45	0.51
1:A:2954:PHE:CE2	1:A:2956:TYR:HB2	2.46	0.51
1:B:866:PRO:HD2	1:B:1009:ARG:NH2	2.25	0.51
1:B:988:LEU:HD13	1:B:1055:ARG:HE	1.75	0.51
1:B:4679:PHE:CZ	1:B:4684:GLU:HG2	2.46	0.51
1:C:2758:LYS:HD2	1:C:2762:LEU:HG	1.92	0.51
1:D:866:PRO:HD2	1:D:1009:ARG:NH2	2.25	0.51
1:D:895:MET:HA	1:D:898:ILE:HG22	1.93	0.51
1:D:2119:LEU:HB2	1:D:2152:ASN:ND2	2.25	0.51
1:D:2938:GLN:O	1:D:2942:GLU:HG2	2.11	0.51
1:D:2954:PHE:CE2	1:D:2956:TYR:HB2	2.46	0.51
1:D:2174:VAL:O	1:D:2178:VAL:HG23	2.10	0.51
1:A:2938:GLN:O	1:A:2942:GLU:HG2	2.11	0.50
1:B:1011:ARG:CB	1:B:1032:LEU:HD21	2.42	0.50
1:B:1957:LEU:O	1:B:1961:LYS:HG2	2.10	0.50
1:B:4834:PRO:HB3	1:B:4843:ARG:HG2	1.92	0.50
1:C:3729:ALA:HA	1:C:3732:HIS:CD2	2.46	0.50
1:A:611:LEU:HD22	1:A:1660:LEU:HD22	1.92	0.50
1:A:3314:LEU:O	1:A:3318:HIS:HB2	2.11	0.50
1:A:3729:ALA:HA	1:A:3732:HIS:CD2	2.46	0.50
1:B:948:CYS:HA	1:B:1067:PRO:HD3	1.92	0.50
1:B:2954:PHE:CE2	1:B:2956:TYR:HB2	2.46	0.50
1:C:555:LEU:HD11	1:C:585:ALA:HB1	1.93	0.50
1:C:611:LEU:HD22	1:C:1660:LEU:HD22	1.93	0.50
1:D:3134:LEU:HB2	1:D:3162:PHE:CE2	2.46	0.50
1:D:4827:ILE:O	1:D:4831:ILE:HG12	2.10	0.50
1:A:921:PHE:HB2	1:A:929:ARG:CG	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3187:LYS:O	1:B:3191:GLU:HB2	2.11	0.50
1:C:2635:GLU:HA	1:C:2638:LEU:HD12	1.93	0.50
1:C:3187:LYS:O	1:C:3191:GLU:HB2	2.11	0.50
1:D:1011:ARG:CB	1:D:1032:LEU:HD21	2.42	0.50
1:D:4273:LYS:NZ	1:D:4274:MET:O	2.45	0.50
1:D:4834:PRO:HB3	1:D:4843:ARG:HG2	1.92	0.50
1:A:1500:ARG:HG3	1:A:1505:LEU:H	1.77	0.50
1:A:4679:PHE:CZ	1:A:4684:GLU:HG2	2.46	0.50
2:G:80:ASP:OD2	2:G:81:VAL:N	2.45	0.50
1:B:611:LEU:HD22	1:B:1660:LEU:HD22	1.92	0.50
1:B:917:CYS:O	1:B:924:LEU:HD12	2.12	0.50
1:B:3729:ALA:HA	1:B:3732:HIS:CD2	2.46	0.50
1:B:4522:VAL:HG21	1:C:4790:ARG:NE	2.25	0.50
1:C:143:LEU:HD23	1:C:207:PHE:HE2	1.76	0.50
1:C:561:ARG:HB3	1:C:564:ARG:HD2	1.94	0.50
1:D:905:GLY:HA3	1:D:914:GLN:HB3	1.93	0.50
1:D:919:VAL:HB	1:D:923:LYS:HE3	1.93	0.50
1:D:4679:PHE:CZ	1:D:4684:GLU:HG2	2.46	0.50
1:A:555:LEU:HD11	1:A:585:ALA:HB1	1.93	0.50
1:A:1029:ASN:HB3	1:A:1032:LEU:HD12	1.93	0.50
1:A:3187:LYS:O	1:A:3191:GLU:HB2	2.11	0.50
1:A:4609:LYS:HD3	1:A:4615:LEU:HD13	1.94	0.50
2:G:24:VAL:HG22	2:G:48:LYS:HG2	1.92	0.50
2:H:80:ASP:OD2	2:H:81:VAL:N	2.45	0.50
1:B:905:GLY:HA3	1:B:914:GLN:HB3	1.93	0.50
1:B:2378:GLU:OE2	1:B:2378:GLU:N	2.40	0.50
1:B:2593:VAL:HG12	1:B:2644:LEU:HB2	1.94	0.50
1:B:3314:LEU:O	1:B:3318:HIS:HB2	2.11	0.50
1:D:917:CYS:O	1:D:924:LEU:HD12	2.12	0.50
1:A:917:CYS:O	1:A:924:LEU:HD12	2.12	0.50
1:A:2174:VAL:O	1:A:2178:VAL:HG23	2.10	0.50
1:A:3022:PHE:HB3	1:A:3025:ASP:OD1	2.12	0.50
2:E:80:ASP:OD2	2:E:81:VAL:N	2.45	0.50
1:B:921:PHE:HB2	1:B:929:ARG:CG	2.42	0.50
1:B:1011:ARG:HD3	1:B:1014:GLN:NE2	2.24	0.50
1:B:1500:ARG:HG3	1:B:1505:LEU:H	1.77	0.50
1:B:3018:ARG:HG2	1:B:3021:LEU:HD13	1.94	0.50
1:B:4256:MET:HE1	1:C:4707:MET:N	2.26	0.50
1:C:292:GLY:HA3	1:C:340:VAL:HG21	1.94	0.50
1:C:917:CYS:O	1:C:924:LEU:HD12	2.12	0.50
1:C:2593:VAL:HG12	1:C:2644:LEU:HB2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2997:SER:OG	1:C:3000:GLU:HG2	2.11	0.50
1:C:4273:LYS:NZ	1:C:4274:MET:O	2.45	0.50
1:D:253:GLY:O	1:D:257:ARG:HG2	2.11	0.50
1:D:363:ILE:HD13	1:D:372:LEU:HD23	1.93	0.50
1:D:561:ARG:HB3	1:D:564:ARG:HD2	1.94	0.50
1:D:885:LEU:HD13	1:D:1060:TYR:HE2	1.77	0.50
1:D:1500:ARG:HG3	1:D:1505:LEU:H	1.77	0.50
1:D:1992:ILE:HD13	1:D:1995:GLN:HE22	1.77	0.50
1:D:3187:LYS:O	1:D:3188:SER:OG	2.28	0.50
1:A:2832:THR:HG21	1:B:1290:PHE:HE2	1.77	0.50
1:A:2858:MET:HA	1:A:2861:GLU:HG3	1.93	0.50
1:A:3280:ILE:O	1:A:3284:ILE:HG12	2.12	0.50
1:B:363:ILE:HD13	1:B:372:LEU:HD23	1.93	0.50
1:B:3022:PHE:HB3	1:B:3025:ASP:OD1	2.11	0.50
1:B:4609:LYS:HD3	1:B:4615:LEU:HD13	1.94	0.50
1:C:919:VAL:HB	1:C:923:LYS:HE3	1.94	0.50
1:C:3022:PHE:HB3	1:C:3025:ASP:OD1	2.12	0.50
1:D:143:LEU:HD23	1:D:207:PHE:HE2	1.76	0.50
1:D:2997:SER:OG	1:D:3000:GLU:HG2	2.11	0.50
1:D:4808:ASP:OD2	1:D:4811:THR:N	2.39	0.50
1:A:2765:GLU:O	1:A:2769:GLU:N	2.45	0.50
1:B:3280:ILE:O	1:B:3284:ILE:HG12	2.12	0.50
1:B:4273:LYS:NZ	1:B:4274:MET:O	2.45	0.50
1:C:895:MET:HA	1:C:898:ILE:HG22	1.93	0.50
1:C:1992:ILE:HD13	1:C:1995:GLN:HE22	1.77	0.50
1:C:2858:MET:HA	1:C:2861:GLU:HG3	1.93	0.50
1:C:3807:ALA:HB1	1:C:3828:LYS:HE3	1.92	0.50
1:D:491:GLU:OE2	1:D:546:LYS:NZ	2.39	0.50
1:D:2759:PRO:O	1:D:2763:LEU:HD23	2.12	0.50
1:D:2789:ILE:HD11	1:D:2896:LEU:HD11	1.93	0.50
1:D:2858:MET:HA	1:D:2861:GLU:HG3	1.93	0.50
1:D:3280:ILE:O	1:D:3284:ILE:HG12	2.12	0.50
1:A:292:GLY:HA3	1:A:340:VAL:HG21	1.94	0.50
1:A:561:ARG:HB3	1:A:564:ARG:HD2	1.94	0.50
1:A:905:GLY:HA3	1:A:914:GLN:HB3	1.93	0.50
1:A:3018:ARG:HG2	1:A:3021:LEU:HD13	1.94	0.50
2:G:83:TYR:OH	1:C:1768:PHE:O	2.21	0.50
1:B:891:GLU:HB3	1:B:978:PRO:HB3	1.93	0.50
1:B:895:MET:HA	1:B:898:ILE:HG22	1.93	0.50
1:B:2858:MET:HA	1:B:2861:GLU:HG3	1.93	0.50
1:B:2997:SER:OG	1:B:3000:GLU:HG2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3171:LEU:HB2	1:B:3245:TYR:CZ	2.47	0.50
1:C:678:MET:SD	1:C:801:ARG:NH2	2.83	0.50
1:C:902:TRP:HE3	1:C:913:ARG:HH11	1.59	0.50
1:C:905:GLY:HA3	1:C:914:GLN:HB3	1.93	0.50
1:C:2759:PRO:O	1:C:2763:LEU:HD23	2.12	0.50
1:C:3892:TYR:OH	1:C:3899:ASP:OD1	2.23	0.50
1:A:885:LEU:HD13	1:A:1060:TYR:HE2	1.77	0.49
1:A:2789:ILE:HD11	1:A:2896:LEU:HD11	1.93	0.49
1:C:885:LEU:HD13	1:C:1060:TYR:HE2	1.77	0.49
1:C:1457:PHE:HD1	1:C:1461:ARG:HH21	1.60	0.49
1:C:2765:GLU:O	1:C:2769:GLU:N	2.45	0.49
1:C:4609:LYS:HD3	1:C:4615:LEU:HD13	1.94	0.49
1:C:4834:PRO:HB3	1:C:4843:ARG:HG2	1.92	0.49
1:D:891:GLU:HB3	1:D:978:PRO:HB3	1.94	0.49
1:D:4609:LYS:HD3	1:D:4615:LEU:HD13	1.94	0.49
1:A:253:GLY:O	1:A:257:ARG:HG2	2.11	0.49
1:A:2997:SER:OG	1:A:3000:GLU:HG2	2.11	0.49
1:B:2759:PRO:O	1:B:2763:LEU:HD23	2.12	0.49
1:C:997:ASP:HA	1:C:1047:LYS:HE3	1.94	0.49
1:D:3022:PHE:HB3	1:D:3025:ASP:OD1	2.12	0.49
1:A:1011:ARG:CB	1:A:1032:LEU:HD21	2.42	0.49
1:A:4481:TRP:NE1	1:A:4692:SER:HA	2.28	0.49
1:B:3174:HIS:CE1	1:B:3175:LEU:HG	2.48	0.49
1:C:891:GLU:HB3	1:C:978:PRO:HB3	1.94	0.49
1:C:2954:PHE:CE2	1:C:2956:TYR:HB2	2.46	0.49
1:C:3171:LEU:HB2	1:C:3245:TYR:CZ	2.47	0.49
1:D:2758:LYS:HD2	1:D:2762:LEU:HG	1.92	0.49
1:D:3187:LYS:O	1:D:3191:GLU:HB2	2.11	0.49
1:D:3284:ILE:HD12	1:D:3296:MET:HG3	1.95	0.49
1:A:2759:PRO:O	1:A:2763:LEU:HD23	2.12	0.49
1:A:3174:HIS:CE1	1:A:3175:LEU:HG	2.48	0.49
1:A:4273:LYS:NZ	1:A:4274:MET:O	2.45	0.49
1:B:902:TRP:HE3	1:B:913:ARG:HH11	1.59	0.49
1:C:237:LEU:HD23	1:C:244:CYS:HB3	1.94	0.49
1:C:3174:HIS:CE1	1:C:3175:LEU:HG	2.48	0.49
1:C:3284:ILE:HD12	1:C:3296:MET:HG3	1.94	0.49
1:D:555:LEU:HD11	1:D:585:ALA:HB1	1.93	0.49
1:D:2765:GLU:O	1:D:2769:GLU:N	2.45	0.49
1:D:3171:LEU:HB2	1:D:3245:TYR:CZ	2.47	0.49
1:A:997:ASP:HA	1:A:1047:LYS:HE3	1.94	0.49
1:A:2460:PHE:HE2	1:A:2465:LYS:HE2	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2593:VAL:HG12	1:A:2644:LEU:HB2	1.94	0.49
1:A:3174:HIS:ND1	1:A:3175:LEU:HG	2.28	0.49
1:B:1992:ILE:HD13	1:B:1995:GLN:HE22	1.77	0.49
1:C:3018:ARG:HG2	1:C:3021:LEU:HD13	1.94	0.49
1:D:1457:PHE:HD1	1:D:1461:ARG:HH21	1.60	0.49
1:A:4183:LYS:HZ3	1:D:4906:GLU:HG3	1.78	0.49
2:F:80:ASP:OD2	2:F:81:VAL:N	2.45	0.49
1:B:1785:ASP:OD1	1:B:1786:ILE:N	2.46	0.49
1:B:2635:GLU:HA	1:B:2638:LEU:HD12	1.93	0.49
1:B:4481:TRP:NE1	1:B:4692:SER:HA	2.28	0.49
1:C:2831:VAL:HG22	1:D:1435:GLY:CA	2.37	0.49
1:D:3174:HIS:CE1	1:D:3175:LEU:HG	2.48	0.49
1:A:891:GLU:HB3	1:A:978:PRO:HB3	1.94	0.49
1:A:919:VAL:HB	1:A:923:LYS:HE3	1.93	0.49
1:A:2635:GLU:HA	1:A:2638:LEU:HD12	1.93	0.49
1:A:3284:ILE:HD12	1:A:3296:MET:HG3	1.94	0.49
1:B:561:ARG:HB3	1:B:564:ARG:HD2	1.94	0.49
1:B:3174:HIS:ND1	1:B:3175:LEU:HG	2.28	0.49
1:C:1500:ARG:HG3	1:C:1505:LEU:H	1.77	0.49
1:C:2460:PHE:HE2	1:C:2465:LYS:HE2	1.77	0.49
1:C:2826:ILE:HG13	1:D:1501:ASN:O	2.13	0.49
1:C:3233:HIS:H	1:C:3233:HIS:CD2	2.31	0.49
1:D:292:GLY:HA3	1:D:340:VAL:HG21	1.94	0.49
1:A:491:GLU:OE2	1:A:546:LYS:NZ	2.39	0.49
1:A:1992:ILE:HD13	1:A:1995:GLN:HE22	1.77	0.49
1:B:3697:LYS:HA	1:B:3700:HIS:CD2	2.48	0.49
1:B:4625:ASP:OD1	1:B:4625:ASP:N	2.45	0.49
1:C:3280:ILE:O	1:C:3284:ILE:HG12	2.12	0.49
1:D:3174:HIS:ND1	1:D:3175:LEU:HG	2.28	0.49
1:A:3171:LEU:HB2	1:A:3245:TYR:CZ	2.47	0.49
1:B:292:GLY:HA3	1:B:340:VAL:HG21	1.94	0.49
1:C:1011:ARG:CB	1:C:1032:LEU:HD21	2.42	0.49
1:C:4567:TYR:O	1:C:4567:TYR:HD2	1.96	0.49
1:D:921:PHE:HB2	1:D:929:ARG:CG	2.42	0.49
1:D:3018:ARG:HG2	1:D:3021:LEU:HD13	1.94	0.49
1:A:3251:GLU:HA	1:A:3256:ASN:HD22	1.78	0.49
1:B:919:VAL:HB	1:B:923:LYS:HE3	1.93	0.49
1:B:1113:MET:HB2	1:B:1156:TRP:CZ2	2.48	0.49
1:B:2460:PHE:HE2	1:B:2465:LYS:HE2	1.77	0.49
1:B:2765:GLU:O	1:B:2769:GLU:N	2.45	0.49
1:B:3284:ILE:HD12	1:B:3296:MET:HG3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4697:VAL:O	1:B:4701:ILE:HG23	2.13	0.49
1:C:4035:TYR:CE2	1:C:4051:ALA:HA	2.48	0.49
1:C:4481:TRP:NE1	1:C:4692:SER:HA	2.28	0.49
1:D:3965:ILE:HG22	1:D:3969:LYS:NZ	2.28	0.49
1:A:910:ASP:OD2	1:A:911:ASN:N	2.46	0.48
1:B:969:ASN:OD1	1:B:970:TYR:N	2.46	0.48
1:B:997:ASP:HA	1:B:1047:LYS:HE3	1.94	0.48
1:B:3025:ASP:O	1:B:3029:ILE:HD12	2.13	0.48
1:D:2145:GLY:O	1:D:2149:ILE:HG13	2.13	0.48
1:D:2593:VAL:HG12	1:D:2644:LEU:HB2	1.94	0.48
1:D:3697:LYS:HA	1:D:3700:HIS:CD2	2.48	0.48
1:D:4567:TYR:O	1:D:4567:TYR:HD2	1.96	0.48
1:A:4567:TYR:O	1:A:4567:TYR:HD2	1.96	0.48
2:F:83:TYR:OH	1:B:1768:PHE:O	2.21	0.48
1:B:910:ASP:OD2	1:B:911:ASN:N	2.46	0.48
1:C:1113:MET:HB2	1:C:1156:TRP:CZ2	2.48	0.48
1:C:3174:HIS:ND1	1:C:3175:LEU:HG	2.28	0.48
1:C:3697:LYS:HA	1:C:3700:HIS:CD2	2.48	0.48
1:C:3965:ILE:HG22	1:C:3969:LYS:NZ	2.28	0.48
1:C:4697:VAL:O	1:C:4701:ILE:HG23	2.13	0.48
1:D:910:ASP:OD2	1:D:911:ASN:N	2.46	0.48
1:D:3891:TYR:O	1:D:3895:LYS:NZ	2.40	0.48
1:A:4697:VAL:O	1:A:4701:ILE:HG23	2.13	0.48
1:B:3965:ILE:HG22	1:B:3969:LYS:NZ	2.28	0.48
1:C:1785:ASP:OD1	1:C:1786:ILE:N	2.46	0.48
1:D:1113:MET:HB2	1:D:1156:TRP:CZ2	2.48	0.48
1:D:2442:MET:SD	1:D:2498:ALA:HB1	2.53	0.48
1:D:2460:PHE:HE2	1:D:2465:LYS:HE2	1.77	0.48
1:D:3042:ALA:HB3	1:D:3117:PHE:HB3	1.95	0.48
1:D:4481:TRP:NE1	1:D:4692:SER:HA	2.28	0.48
1:A:3042:ALA:HB3	1:A:3117:PHE:HB3	1.95	0.48
1:A:3697:LYS:HA	1:A:3700:HIS:CD2	2.48	0.48
1:A:3965:ILE:HG22	1:A:3969:LYS:NZ	2.28	0.48
1:B:1457:PHE:HD1	1:B:1461:ARG:HH21	1.60	0.48
1:B:3233:HIS:H	1:B:3233:HIS:CD2	2.31	0.48
1:C:910:ASP:OD2	1:C:911:ASN:N	2.46	0.48
1:A:237:LEU:HD23	1:A:244:CYS:HB3	1.94	0.48
1:A:889:ILE:HD12	1:A:893:TRP:HZ3	1.79	0.48
1:A:969:ASN:OD1	1:A:970:TYR:N	2.46	0.48
1:A:4660:PHE:HZ	1:D:4057:HIS:CE1	2.32	0.48
1:B:2831:VAL:HG22	1:C:1435:GLY:HA2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3042:ALA:HB3	1:B:3117:PHE:HB3	1.95	0.48
1:C:3025:ASP:O	1:C:3029:ILE:HD12	2.13	0.48
1:D:26:ALA:HB3	1:D:33:GLN:HB3	1.96	0.48
1:D:997:ASP:HA	1:D:1047:LYS:HE3	1.94	0.48
1:D:1785:ASP:OD1	1:D:1786:ILE:N	2.46	0.48
1:D:2378:GLU:OE2	1:D:2378:GLU:N	2.40	0.48
1:D:4697:VAL:O	1:D:4701:ILE:HG23	2.13	0.48
1:A:1785:ASP:OD1	1:A:1786:ILE:N	2.46	0.48
1:A:2679:ASP:HA	1:A:2920:ARG:HH21	1.79	0.48
1:B:49:LEU:HD11	1:B:194:LEU:CD1	2.44	0.48
1:B:885:LEU:HD13	1:B:1060:TYR:HE2	1.77	0.48
1:C:2442:MET:SD	1:C:2498:ALA:HB1	2.53	0.48
1:C:3277:LEU:HD21	1:C:3307:ILE:HG22	1.96	0.48
1:C:4822:ARG:HH12	1:D:4829:ASP:N	2.11	0.48
1:D:1979:PHE:CD1	1:D:1993:ARG:HG2	2.49	0.48
1:A:1113:MET:HB2	1:A:1156:TRP:CZ2	2.48	0.48
1:A:1457:PHE:HD1	1:A:1461:ARG:HH21	1.60	0.48
1:A:3304:GLN:O	1:A:3307:ILE:HG12	2.14	0.48
1:A:4093:ASP:OD1	1:A:4094:ILE:HG13	2.14	0.48
1:B:2679:ASP:HA	1:B:2920:ARG:HH21	1.79	0.48
1:B:4567:TYR:O	1:B:4567:TYR:HD2	1.96	0.48
1:C:1979:PHE:CD1	1:C:1993:ARG:HG2	2.49	0.48
1:C:2145:GLY:O	1:C:2149:ILE:HG13	2.14	0.48
1:C:2679:ASP:HA	1:C:2920:ARG:HH21	1.79	0.48
1:C:2830:ASN:OD1	1:D:1549:SER:HB2	2.14	0.48
1:D:237:LEU:HD23	1:D:244:CYS:HB3	1.94	0.48
1:D:3025:ASP:O	1:D:3029:ILE:HD12	2.14	0.48
1:D:3277:LEU:HD21	1:D:3307:ILE:HG22	1.96	0.48
1:D:4035:TYR:CE2	1:D:4051:ALA:HA	2.48	0.48
1:A:1979:PHE:CD1	1:A:1993:ARG:HG2	2.49	0.48
1:A:2769:GLU:OE2	1:A:2773:TRP:HB2	2.14	0.48
1:B:237:LEU:HD23	1:B:244:CYS:HB3	1.94	0.48
1:C:921:PHE:HB2	1:C:929:ARG:CG	2.42	0.48
1:C:3187:LYS:O	1:C:3188:SER:OG	2.28	0.48
1:A:49:LEU:HD11	1:A:194:LEU:CD1	2.44	0.48
1:A:514:PHE:CD2	1:A:526:TRP:HB2	2.49	0.48
1:A:2545:ILE:HG21	1:A:2580:LEU:HD11	1.96	0.48
1:A:3025:ASP:O	1:A:3029:ILE:HD12	2.14	0.48
1:A:3187:LYS:O	1:A:3188:SER:OG	2.28	0.48
1:B:821:PRO:HB2	1:B:823:TYR:CE1	2.49	0.48
1:B:3304:GLN:O	1:B:3307:ILE:HG12	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1047:LYS:HD3	1:C:1047:LYS:HA	1.48	0.48
1:D:1564:MET:HE3	1:D:1565:PRO:HD2	1.96	0.48
1:D:2679:ASP:HA	1:D:2920:ARG:HH21	1.79	0.48
1:D:3304:GLN:O	1:D:3307:ILE:HG12	2.14	0.48
1:A:1564:MET:HE3	1:A:1565:PRO:HD2	1.95	0.48
1:A:1822:ILE:HD12	1:A:1902:VAL:HG13	1.96	0.48
1:A:2145:GLY:O	1:A:2149:ILE:HG13	2.14	0.48
1:A:2378:GLU:OE2	1:A:2378:GLU:N	2.40	0.48
1:A:2592:LEU:HD22	1:A:2606:PRO:HB3	1.96	0.48
1:B:1822:ILE:HD12	1:B:1902:VAL:HG13	1.96	0.48
1:B:2545:ILE:HG21	1:B:2580:LEU:HD11	1.96	0.48
1:B:3251:GLU:HA	1:B:3256:ASN:HD22	1.78	0.48
1:B:4093:ASP:OD1	1:B:4094:ILE:HG13	2.14	0.48
1:C:1822:ILE:HD12	1:C:1902:VAL:HG13	1.96	0.48
1:D:889:ILE:HD12	1:D:893:TRP:HZ3	1.79	0.48
1:D:1822:ILE:HD12	1:D:1902:VAL:HG13	1.96	0.48
1:D:3920:LEU:O	1:D:3924:ILE:HG12	2.14	0.48
1:A:821:PRO:HB2	1:A:823:TYR:CE1	2.49	0.47
1:A:3891:TYR:O	1:A:3895:LYS:NZ	2.40	0.47
1:B:2222:LEU:HB3	1:B:2264:LYS:HE3	1.96	0.47
1:B:2442:MET:SD	1:B:2498:ALA:HB1	2.53	0.47
1:B:2660:GLU:H	1:B:2660:GLU:CD	2.18	0.47
1:C:514:PHE:CD2	1:C:526:TRP:HB2	2.49	0.47
1:D:821:PRO:HB2	1:D:823:TYR:CE1	2.49	0.47
1:D:2835:ARG:HE	1:D:2835:ARG:HB3	1.41	0.47
1:D:4093:ASP:OD1	1:D:4094:ILE:HG13	2.14	0.47
1:A:2731:LYS:HA	1:A:2734:MET:HG2	1.96	0.47
1:B:4035:TYR:CE2	1:B:4051:ALA:HA	2.48	0.47
1:B:4089:GLU:HG2	1:B:4090:PRO:HD3	1.96	0.47
1:C:26:ALA:HB3	1:C:33:GLN:HB3	1.96	0.47
1:C:49:LEU:HD11	1:C:194:LEU:CD1	2.44	0.47
1:C:821:PRO:HB2	1:C:823:TYR:CE1	2.49	0.47
1:D:2660:GLU:CD	1:D:2660:GLU:H	2.18	0.47
1:D:2884:LYS:O	1:D:2887:GLU:HG3	2.14	0.47
1:D:3251:GLU:HA	1:D:3256:ASN:HD22	1.78	0.47
1:A:2884:LYS:O	1:A:2887:GLU:HG3	2.14	0.47
1:A:3239:LEU:HD22	1:A:3280:ILE:HG12	1.96	0.47
1:C:2592:LEU:HD22	1:C:2606:PRO:HB3	1.96	0.47
1:C:3699:CYS:SG	1:C:3731:LEU:HD12	2.55	0.47
1:C:4093:ASP:OD1	1:C:4094:ILE:HG13	2.14	0.47
1:D:49:LEU:HD11	1:D:194:LEU:CD1	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1503:ASN:HB2	1:D:2824:ARG:HH22	1.79	0.47
1:A:2442:MET:SD	1:A:2498:ALA:HB1	2.53	0.47
1:A:4089:GLU:HG2	1:A:4090:PRO:HD3	1.96	0.47
1:B:1979:PHE:CD1	1:B:1993:ARG:HG2	2.49	0.47
1:B:2471:PHE:O	1:B:2475:VAL:HG12	2.14	0.47
1:B:3920:LEU:O	1:B:3924:ILE:HG12	2.14	0.47
1:B:4522:VAL:HG23	1:C:4786:PHE:CZ	2.49	0.47
1:C:2222:LEU:HB3	1:C:2264:LYS:HE3	1.96	0.47
1:C:2471:PHE:O	1:C:2475:VAL:HG12	2.14	0.47
1:C:3042:ALA:HB3	1:C:3117:PHE:HB3	1.95	0.47
1:D:2592:LEU:HD22	1:D:2606:PRO:HB3	1.96	0.47
1:D:2769:GLU:OE2	1:D:2773:TRP:HB2	2.14	0.47
1:D:3233:HIS:CD2	1:D:3233:HIS:H	2.31	0.47
1:A:26:ALA:HB3	1:A:33:GLN:HB3	1.96	0.47
1:A:1098:ALA:HA	1:A:1168:MET:HB2	1.97	0.47
1:B:1098:ALA:HA	1:B:1168:MET:HB2	1.97	0.47
1:B:2145:GLY:O	1:B:2149:ILE:HG13	2.14	0.47
1:B:4808:ASP:OD2	1:B:4811:THR:N	2.39	0.47
1:C:969:ASN:OD1	1:C:970:TYR:N	2.46	0.47
1:D:2731:LYS:HA	1:D:2734:MET:HG2	1.96	0.47
1:A:227:TYR:CG	1:A:352:SER:HB2	2.50	0.47
1:A:1113:MET:HB2	1:A:1156:TRP:HZ2	1.80	0.47
1:A:2660:GLU:CD	1:A:2660:GLU:H	2.18	0.47
1:A:3277:LEU:HD21	1:A:3307:ILE:HG22	1.96	0.47
1:A:4896:ASP:OD1	1:A:4897:TYR:N	2.48	0.47
1:B:3035:ILE:O	1:B:3039:THR:HG23	2.15	0.47
1:B:3277:LEU:HD21	1:B:3307:ILE:HG22	1.96	0.47
1:C:1427:TYR:HB2	1:C:1563:VAL:HG11	1.97	0.47
1:C:2545:ILE:HG21	1:C:2580:LEU:HD11	1.96	0.47
1:C:4265:LYS:O	1:C:4269:LYS:HG2	2.15	0.47
1:D:2545:ILE:HG21	1:D:2580:LEU:HD11	1.96	0.47
1:A:894:VAL:HG23	1:A:895:MET:HE2	1.95	0.47
1:A:1714:TYR:CE2	1:A:1718:ARG:HD2	2.50	0.47
1:A:2604:LYS:HG2	1:A:2664:LEU:HD12	1.97	0.47
1:A:3920:LEU:O	1:A:3924:ILE:HG12	2.14	0.47
1:B:1685:LEU:O	1:B:1689:ILE:HG12	2.15	0.47
1:B:2884:LYS:O	1:B:2887:GLU:HG3	2.14	0.47
1:B:3892:TYR:OH	1:B:3899:ASP:OD1	2.23	0.47
1:C:844:ARG:HH12	1:C:845:THR:HG23	1.80	0.47
1:C:1055:ARG:HA	1:C:1058:LEU:HD12	1.97	0.47
1:C:1714:TYR:CE2	1:C:1718:ARG:HD2	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2830:ASN:ND2	1:D:1551:ASN:HB2	2.29	0.47
1:C:2831:VAL:HB	1:C:2894:LYS:HD2	1.97	0.47
1:C:4625:ASP:OD1	1:C:4625:ASP:N	2.45	0.47
1:D:227:TYR:CG	1:D:352:SER:HB2	2.50	0.47
1:D:514:PHE:CD2	1:D:526:TRP:HB2	2.49	0.47
1:D:844:ARG:HH12	1:D:845:THR:HG23	1.80	0.47
1:D:969:ASN:OD1	1:D:970:TYR:N	2.46	0.47
1:D:3239:LEU:HD22	1:D:3280:ILE:HG12	1.96	0.47
1:D:3699:CYS:SG	1:D:3731:LEU:HD12	2.55	0.47
1:D:3846:LEU:HB3	1:D:3854:PHE:CE2	2.50	0.47
1:A:3233:HIS:H	1:A:3233:HIS:CD2	2.31	0.47
1:A:4035:TYR:CE2	1:A:4051:ALA:HA	2.48	0.47
1:B:537:LEU:O	1:B:541:ILE:HG12	2.15	0.47
1:B:3227:ARG:NH1	1:B:3228:TYR:HB3	2.30	0.47
1:B:4608:ARG:NH2	1:B:4644:TYR:OH	2.48	0.47
1:C:624:ALA:HB2	1:C:1667:LEU:HD12	1.97	0.47
1:C:2884:LYS:O	1:C:2887:GLU:HG3	2.14	0.47
1:C:3122:ILE:HG13	1:C:3126:VAL:HG23	1.97	0.47
1:C:3304:GLN:O	1:C:3307:ILE:HG12	2.14	0.47
1:A:3846:LEU:HB3	1:A:3854:PHE:CE2	2.50	0.47
1:A:4790:ARG:NH2	1:D:4559:TYR:OH	2.42	0.47
1:B:26:ALA:HB3	1:B:33:GLN:HB3	1.96	0.47
1:B:844:ARG:HH12	1:B:845:THR:HG23	1.80	0.47
1:B:1427:TYR:HB2	1:B:1563:VAL:HG11	1.97	0.47
1:B:2769:GLU:OE2	1:B:2773:TRP:HB2	2.14	0.47
1:B:3122:ILE:HG13	1:B:3126:VAL:HG23	1.97	0.47
1:B:4896:ASP:OD1	1:B:4897:TYR:N	2.48	0.47
1:C:889:ILE:HD12	1:C:893:TRP:HZ3	1.79	0.47
1:C:946:LEU:HD11	1:C:998:LYS:HE2	1.97	0.47
1:C:2660:GLU:H	1:C:2660:GLU:CD	2.18	0.47
1:C:2769:GLU:OE2	1:C:2773:TRP:HB2	2.14	0.47
1:D:1013:ARG:HD3	1:D:1013:ARG:HA	1.69	0.47
1:D:2222:LEU:HB3	1:D:2264:LYS:HE3	1.96	0.47
1:D:4265:LYS:O	1:D:4269:LYS:HG2	2.15	0.47
1:A:2518:ARG:O	1:A:2522:THR:OG1	2.30	0.47
1:A:3035:ILE:O	1:A:3039:THR:HG23	2.15	0.47
1:B:227:TYR:CG	1:B:352:SER:HB2	2.50	0.47
1:B:1007:TRP:CH2	1:B:1031:ARG:HB3	2.50	0.47
1:B:2592:LEU:HD22	1:B:2606:PRO:HB3	1.96	0.47
1:B:3699:CYS:SG	1:B:3731:LEU:HD12	2.55	0.47
1:C:1685:LEU:O	1:C:1689:ILE:HG12	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2157:GLN:O	1:C:3615:ARG:NH2	2.48	0.47
1:C:3846:LEU:HB3	1:C:3854:PHE:CE2	2.50	0.47
1:D:1685:LEU:O	1:D:1689:ILE:HG12	2.15	0.47
1:A:844:ARG:HH12	1:A:845:THR:HG23	1.80	0.46
1:A:1007:TRP:CH2	1:A:1031:ARG:HB3	2.50	0.46
1:A:1081:THR:OG1	1:A:1082:GLY:N	2.40	0.46
1:A:1850:VAL:HG21	1:A:2061:LEU:HD13	1.97	0.46
1:A:2222:LEU:HB3	1:A:2264:LYS:HE3	1.96	0.46
1:A:4685:LYS:HD3	1:A:4685:LYS:HA	1.81	0.46
1:B:514:PHE:CD2	1:B:526:TRP:HB2	2.49	0.46
1:B:889:ILE:HD12	1:B:893:TRP:HZ3	1.79	0.46
1:C:2731:LYS:HA	1:C:2734:MET:HG2	1.96	0.46
1:C:3920:LEU:O	1:C:3924:ILE:HG12	2.14	0.46
1:C:4896:ASP:OD1	1:C:4897:TYR:N	2.48	0.46
1:D:3035:ILE:O	1:D:3039:THR:HG23	2.15	0.46
1:D:3321:PRO:HA	1:D:3324:GLU:HG3	1.98	0.46
1:D:4608:ARG:NH2	1:D:4644:TYR:OH	2.48	0.46
1:D:4896:ASP:OD1	1:D:4897:TYR:N	2.48	0.46
1:A:2944:ASP:O	1:A:2948:ARG:NE	2.49	0.46
1:B:4187:GLU:OE1	1:B:4949:TRP:NE1	2.43	0.46
1:C:537:LEU:O	1:C:541:ILE:HG12	2.15	0.46
1:C:1098:ALA:HA	1:C:1168:MET:HB2	1.97	0.46
1:C:2604:LYS:HG2	1:C:2664:LEU:HD12	1.97	0.46
1:D:1714:TYR:CE2	1:D:1718:ARG:HD2	2.50	0.46
1:D:2831:VAL:HB	1:D:2894:LYS:HD2	1.97	0.46
1:A:386:SER:OG	1:A:387:ILE:N	2.49	0.46
1:A:537:LEU:O	1:A:541:ILE:HG12	2.15	0.46
1:A:881:ILE:HA	1:A:881:ILE:HD12	1.84	0.46
1:B:386:SER:OG	1:B:387:ILE:N	2.49	0.46
1:B:1055:ARG:HA	1:B:1058:LEU:HD12	1.97	0.46
1:B:3846:LEU:HB3	1:B:3854:PHE:CE2	2.50	0.46
1:C:1971:GLU:O	1:C:1975:MET:HG2	2.16	0.46
1:C:3149:GLU:OE2	1:C:3152:ARG:NH2	2.41	0.46
1:C:3239:LEU:HD22	1:C:3280:ILE:HG12	1.96	0.46
1:D:1850:VAL:HG21	1:D:2061:LEU:HD13	1.97	0.46
1:A:1044:LYS:HG3	1:A:1045:SER:N	2.31	0.46
1:A:1427:TYR:HB2	1:A:1563:VAL:HG11	1.97	0.46
1:A:1594:VAL:HG13	1:A:1594:VAL:O	2.16	0.46
1:A:2471:PHE:O	1:A:2475:VAL:HG12	2.15	0.46
1:A:4808:ASP:OD2	1:A:4811:THR:N	2.39	0.46
1:B:274:LEU:HD23	1:B:274:LEU:HA	1.82	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1007:TRP:CH2	1:B:1032:LEU:HG	2.51	0.46
1:B:1113:MET:HB2	1:B:1156:TRP:HZ2	1.80	0.46
1:B:2157:GLN:O	1:B:3615:ARG:NH2	2.48	0.46
1:B:2731:LYS:HA	1:B:2734:MET:HG2	1.96	0.46
1:C:1007:TRP:CH2	1:C:1031:ARG:HB3	2.50	0.46
1:C:1050:LEU:HD13	1:C:1050:LEU:HA	1.74	0.46
1:C:3251:GLU:HA	1:C:3256:ASN:HD22	1.78	0.46
1:D:1594:VAL:O	1:D:1594:VAL:HG13	2.16	0.46
1:D:2157:GLN:O	1:D:3615:ARG:NH2	2.48	0.46
1:D:2471:PHE:O	1:D:2475:VAL:HG12	2.14	0.46
1:D:2944:ASP:O	1:D:2948:ARG:NE	2.49	0.46
1:D:3227:ARG:NH1	1:D:3228:TYR:HB3	2.30	0.46
1:A:2763:LEU:CD1	1:A:2767:GLU:HB3	2.46	0.46
1:A:4265:LYS:O	1:A:4269:LYS:HG2	2.15	0.46
1:B:2831:VAL:HB	1:B:2894:LYS:HD2	1.97	0.46
1:B:3059:ALA:O	1:B:3063:ASN:ND2	2.36	0.46
1:D:1896:MET:HB2	1:D:1898:LEU:CD1	2.44	0.46
1:A:2157:GLN:O	1:A:3615:ARG:NH2	2.48	0.46
1:A:2831:VAL:HB	1:A:2894:LYS:HD2	1.97	0.46
1:A:2835:ARG:HE	1:A:2835:ARG:HB3	1.41	0.46
1:A:3321:PRO:HA	1:A:3324:GLU:HG3	1.97	0.46
1:B:1645:THR:HG22	1:B:1695:PRO:HG3	1.98	0.46
1:C:2890:GLN:O	1:C:2894:LYS:HG3	2.15	0.46
1:C:3071:THR:HA	1:C:3074:ASN:HD21	1.79	0.46
1:C:3321:PRO:HA	1:C:3324:GLU:HG3	1.98	0.46
1:C:4608:ARG:NH2	1:C:4644:TYR:OH	2.48	0.46
1:D:1113:MET:HB2	1:D:1156:TRP:HZ2	1.80	0.46
1:D:2440:PHE:CZ	1:D:2465:LYS:HE3	2.51	0.46
1:D:2692:GLN:HA	1:D:2695:MET:HG3	1.98	0.46
1:D:4194:GLU:HG2	1:D:4645:TRP:HZ3	1.81	0.46
1:A:1007:TRP:CH2	1:A:1032:LEU:HG	2.51	0.46
1:A:1685:LEU:O	1:A:1689:ILE:HG12	2.15	0.46
1:A:1833:ILE:O	1:A:1835:HIS:ND1	2.49	0.46
1:A:2692:GLN:HA	1:A:2695:MET:HG3	1.97	0.46
1:A:2954:PHE:CZ	1:A:2960:ILE:HD13	2.51	0.46
1:A:3227:ARG:NH1	1:A:3228:TYR:HB3	2.30	0.46
1:A:3699:CYS:SG	1:A:3731:LEU:HD12	2.55	0.46
1:A:3882:GLN:HG2	1:A:3943:ALA:HA	1.98	0.46
1:A:4640:PHE:CG	1:A:4641:PRO:HD3	2.51	0.46
1:B:1594:VAL:O	1:B:1594:VAL:HG13	2.16	0.46
1:B:1708:ASP:HA	1:B:1712:SER:HB3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2604:LYS:HG2	1:B:2664:LEU:HD12	1.97	0.46
1:B:2954:PHE:CZ	1:B:2960:ILE:HD13	2.51	0.46
1:B:3230:GLN:OE1	1:B:3230:GLN:N	2.49	0.46
1:B:3239:LEU:HD22	1:B:3280:ILE:HG12	1.96	0.46
1:C:227:TYR:CG	1:C:352:SER:HB2	2.50	0.46
1:C:1833:ILE:O	1:C:1835:HIS:ND1	2.49	0.46
1:C:2763:LEU:CD1	1:C:2767:GLU:HB3	2.46	0.46
1:C:2944:ASP:O	1:C:2948:ARG:NE	2.49	0.46
1:C:3035:ILE:O	1:C:3039:THR:HG23	2.15	0.46
1:C:3227:ARG:NH1	1:C:3228:TYR:HB3	2.30	0.46
1:D:537:LEU:O	1:D:541:ILE:HG12	2.15	0.46
1:D:1007:TRP:CH2	1:D:1031:ARG:HB3	2.50	0.46
1:D:1098:ALA:HA	1:D:1168:MET:HB2	1.97	0.46
1:D:1417:TYR:O	1:D:1421:MET:HG2	2.16	0.46
1:D:2326:ARG:HA	1:D:2326:ARG:HD3	1.74	0.46
1:D:2890:GLN:O	1:D:2894:LYS:HG3	2.16	0.46
1:D:3882:GLN:HG2	1:D:3943:ALA:HA	1.98	0.46
1:D:4735:ASN:HB3	1:D:4738:PHE:HD2	1.81	0.46
1:A:137:ARG:HH21	1:A:202:HIS:HB3	1.81	0.46
2:F:58:LYS:O	2:F:62:GLU:HG2	2.16	0.46
1:B:932:ASN:HB2	5:B:5004:KVR:C07	2.46	0.46
1:B:1417:TYR:O	1:B:1421:MET:HG2	2.16	0.46
1:B:4038:ASP:OD1	1:B:4039:GLY:N	2.49	0.46
1:C:932:ASN:HB2	5:C:5004:KVR:C07	2.46	0.46
1:C:1113:MET:HB2	1:C:1156:TRP:HZ2	1.80	0.46
1:C:1844:GLN:NE2	1:C:1853:GLU:OE1	2.49	0.46
1:C:2134:MET:HG2	1:C:2192:MET:HE3	1.98	0.46
1:C:2692:GLN:HA	1:C:2695:MET:HG3	1.97	0.46
1:C:2954:PHE:CZ	1:C:2960:ILE:HD13	2.51	0.46
1:C:3070:LYS:O	1:C:3073:GLU:HG3	2.16	0.46
1:C:4822:ARG:HH12	1:D:4828:GLY:C	2.18	0.46
1:D:1708:ASP:HA	1:D:1712:SER:HB3	1.98	0.46
1:D:1833:ILE:O	1:D:1835:HIS:ND1	2.49	0.46
1:D:2954:PHE:CZ	1:D:2960:ILE:HD13	2.51	0.46
1:D:3071:THR:HA	1:D:3074:ASN:HD21	1.79	0.46
1:D:3270:SER:HA	1:D:3273:MET:HE3	1.97	0.46
1:D:3965:ILE:HG22	1:D:3969:LYS:HZ2	1.80	0.46
1:A:562:LEU:HG	1:A:600:LEU:HD13	1.98	0.46
1:A:2440:PHE:CZ	1:A:2465:LYS:HE3	2.51	0.46
1:A:3046:MET:O	1:A:3054:LYS:NZ	2.49	0.46
1:A:3122:ILE:HG13	1:A:3126:VAL:HG23	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:562:LEU:HG	1:B:600:LEU:HD13	1.98	0.46
1:B:1714:TYR:CE2	1:B:1718:ARG:HD2	2.50	0.46
1:B:1971:GLU:O	1:B:1975:MET:HG2	2.16	0.46
1:B:2979:ARG:HG2	1:B:3039:THR:HG22	1.98	0.46
1:B:3071:THR:HA	1:B:3074:ASN:HD21	1.80	0.46
1:C:842:GLN:HB2	1:C:1603:PHE:HB2	1.98	0.46
1:C:1594:VAL:HG13	1:C:1594:VAL:O	2.16	0.46
1:C:1734:LYS:NZ	1:C:1930:ASP:OD1	2.49	0.46
1:C:4089:GLU:HG2	1:C:4090:PRO:HD3	1.96	0.46
1:C:4640:PHE:CG	1:C:4641:PRO:HD3	2.51	0.46
1:D:274:LEU:HD23	1:D:274:LEU:HA	1.82	0.46
1:D:624:ALA:HB2	1:D:1667:LEU:HD12	1.97	0.46
1:D:1007:TRP:CH2	1:D:1032:LEU:HG	2.51	0.46
1:D:1055:ARG:HA	1:D:1058:LEU:HD12	1.97	0.46
1:D:1427:TYR:HB2	1:D:1563:VAL:HG11	1.97	0.46
1:D:1844:GLN:NE2	1:D:1853:GLU:OE1	2.49	0.46
1:D:2604:LYS:HG2	1:D:2664:LEU:HD12	1.97	0.46
1:D:4089:GLU:HG2	1:D:4090:PRO:HD3	1.96	0.46
1:D:4640:PHE:CG	1:D:4641:PRO:HD3	2.51	0.46
1:A:1645:THR:HG22	1:A:1695:PRO:HG3	1.98	0.46
1:A:1844:GLN:NE2	1:A:1853:GLU:OE1	2.49	0.46
1:A:2167:MET:HE2	1:A:2167:MET:HB3	1.61	0.46
1:B:1473:LYS:NZ	1:B:1475:LYS:HB3	2.31	0.46
1:B:2944:ASP:O	1:B:2948:ARG:NE	2.49	0.46
1:C:2979:ARG:HG2	1:C:3039:THR:HG22	1.98	0.46
1:C:4038:ASP:OD1	1:C:4039:GLY:N	2.49	0.46
1:D:1734:LYS:NZ	1:D:1930:ASP:OD1	2.49	0.46
1:A:842:GLN:HB2	1:A:1603:PHE:HB2	1.98	0.45
1:A:869:THR:OG1	1:A:941:LYS:HB3	2.16	0.45
1:A:1055:ARG:HA	1:A:1058:LEU:HD12	1.97	0.45
1:A:1473:LYS:NZ	1:A:1475:LYS:HB3	2.31	0.45
1:A:1708:ASP:HA	1:A:1712:SER:HB3	1.98	0.45
1:A:4179:GLU:HG2	1:A:4179:GLU:O	2.17	0.45
1:B:137:ARG:HH21	1:B:202:HIS:HB3	1.81	0.45
1:B:3882:GLN:HG2	1:B:3943:ALA:HA	1.98	0.45
1:C:675:TYR:HB3	1:C:822:CYS:SG	2.57	0.45
1:C:3108:LEU:O	1:C:3112:ILE:HG12	2.17	0.45
1:D:2763:LEU:CD1	1:D:2767:GLU:HB3	2.46	0.45
1:D:3059:ALA:O	1:D:3063:ASN:ND2	2.36	0.45
1:D:4795:LYS:HD2	1:D:4795:LYS:HA	1.79	0.45
1:A:675:TYR:HB3	1:A:822:CYS:SG	2.57	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1898:LEU:HD23	1:A:1902:VAL:CG1	2.47	0.45
2:H:58:LYS:O	2:H:62:GLU:HG2	2.16	0.45
1:B:869:THR:OG1	1:B:941:LYS:HB3	2.16	0.45
1:B:1965:PHE:HB3	1:B:3604:ARG:HH22	1.81	0.45
1:B:3070:LYS:O	1:B:3073:GLU:HG3	2.16	0.45
1:B:3697:LYS:HA	1:B:3700:HIS:HD2	1.82	0.45
1:C:2155:PHE:HA	1:C:2162:MET:SD	2.56	0.45
1:C:2440:PHE:CZ	1:C:2465:LYS:HE3	2.51	0.45
1:C:3882:GLN:HG2	1:C:3943:ALA:HA	1.98	0.45
1:C:3908:LYS:HB2	1:C:3908:LYS:HE3	1.76	0.45
1:D:851:LEU:HD23	1:D:1212:VAL:HG22	1.99	0.45
1:D:918:LEU:HD12	1:D:918:LEU:HA	1.83	0.45
1:D:2734:MET:CE	1:D:2823:PRO:HB2	2.46	0.45
1:D:2927:GLN:HG2	1:D:2931:ARG:NE	2.31	0.45
1:D:3315:LEU:HA	1:D:3319:PHE:HD2	1.82	0.45
1:A:851:LEU:HD23	1:A:1212:VAL:HG22	1.98	0.45
1:A:946:LEU:HD11	1:A:998:LYS:HE2	1.97	0.45
1:A:1962:THR:HG23	1:A:1966:ARG:NE	2.32	0.45
2:G:58:LYS:O	2:G:62:GLU:HG2	2.16	0.45
1:B:899:GLU:HB2	1:B:970:TYR:CE1	2.52	0.45
1:B:3108:LEU:O	1:B:3112:ILE:HG12	2.17	0.45
1:B:4265:LYS:O	1:B:4269:LYS:HG2	2.15	0.45
1:C:851:LEU:HD23	1:C:1212:VAL:HG22	1.99	0.45
1:C:1007:TRP:CH2	1:C:1032:LEU:HG	2.51	0.45
1:C:4795:LYS:HA	1:C:4795:LYS:HD2	1.79	0.45
1:D:675:TYR:HB3	1:D:822:CYS:SG	2.56	0.45
1:A:624:ALA:HB2	1:A:1667:LEU:HD12	1.97	0.45
1:A:749:LEU:HD22	1:A:755:ILE:HD11	1.99	0.45
1:A:1611:ILE:HD11	1:A:1618:LEU:HD22	1.98	0.45
1:A:1794:MET:HE2	1:A:1821:LEU:HD13	1.98	0.45
1:A:3071:THR:HA	1:A:3074:ASN:HD21	1.79	0.45
2:E:58:LYS:O	2:E:62:GLU:HG2	2.16	0.45
1:B:675:TYR:HB3	1:B:822:CYS:SG	2.56	0.45
1:B:749:LEU:HD22	1:B:755:ILE:HD11	1.99	0.45
1:B:1611:ILE:HD11	1:B:1618:LEU:HD22	1.98	0.45
1:B:2155:PHE:HA	1:B:2162:MET:SD	2.56	0.45
1:B:2692:GLN:HA	1:B:2695:MET:HG3	1.97	0.45
1:B:3288:LEU:HD21	1:B:3332:THR:HG23	1.99	0.45
1:B:3664:LEU:O	1:B:3668:ILE:HG13	2.17	0.45
1:C:143:LEU:HD23	1:C:207:PHE:CE2	2.52	0.45
1:C:668:ALA:HB2	1:C:1012:ILE:HD11	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:749:LEU:HD22	1:C:755:ILE:HD11	1.99	0.45
1:C:1417:TYR:O	1:C:1421:MET:HG2	2.16	0.45
1:C:1850:VAL:HG21	1:C:2061:LEU:HD13	1.97	0.45
1:C:1896:MET:HB2	1:C:1898:LEU:CD1	2.44	0.45
1:C:2788:ARG:HE	1:C:2908:LYS:NZ	2.15	0.45
1:D:946:LEU:HD11	1:D:998:LYS:HE2	1.97	0.45
1:D:1810:VAL:HB	1:D:1817:LEU:HD13	1.98	0.45
1:D:2605:MET:HB3	1:D:2606:PRO:HD3	1.98	0.45
1:D:3122:ILE:HG13	1:D:3126:VAL:HG23	1.97	0.45
1:A:899:GLU:HB2	1:A:970:TYR:CE1	2.52	0.45
1:A:932:ASN:HB2	5:A:5004:KVR:C07	2.46	0.45
1:A:1971:GLU:O	1:A:1975:MET:HG2	2.16	0.45
1:A:2890:GLN:O	1:A:2894:LYS:HG3	2.16	0.45
1:B:1044:LYS:HG3	1:B:1045:SER:N	2.31	0.45
1:B:2440:PHE:CZ	1:B:2465:LYS:HE3	2.51	0.45
1:B:2788:ARG:HH21	1:B:2908:LYS:HD2	1.82	0.45
1:B:3321:PRO:HA	1:B:3324:GLU:HG3	1.98	0.45
1:C:899:GLU:HB2	1:C:970:TYR:CE1	2.52	0.45
1:C:3059:ALA:O	1:C:3063:ASN:ND2	2.36	0.45
1:D:562:LEU:HG	1:D:600:LEU:HD13	1.98	0.45
1:D:842:GLN:HB2	1:D:1603:PHE:HB2	1.98	0.45
1:D:1473:LYS:NZ	1:D:1475:LYS:HB3	2.31	0.45
1:D:2504:THR:HG23	1:D:2507:LEU:H	1.82	0.45
1:D:3070:LYS:O	1:D:3073:GLU:HG3	2.16	0.45
1:D:3268:LEU:HD23	1:D:3268:LEU:HA	1.75	0.45
1:D:4179:GLU:HG2	1:D:4179:GLU:O	2.17	0.45
1:A:3070:LYS:O	1:A:3073:GLU:HG3	2.16	0.45
1:A:4608:ARG:NH2	1:A:4644:TYR:OH	2.48	0.45
1:B:624:ALA:HB2	1:B:1667:LEU:HD12	1.97	0.45
1:B:2566:ARG:O	1:B:2570:GLU:HG3	2.17	0.45
1:B:2788:ARG:HE	1:B:2908:LYS:NZ	2.15	0.45
1:B:2927:GLN:HG2	1:B:2931:ARG:NE	2.31	0.45
1:C:386:SER:OG	1:C:387:ILE:N	2.49	0.45
1:C:1074:ARG:O	1:C:1077:VAL:HG23	2.16	0.45
1:C:1898:LEU:HD23	1:C:1902:VAL:CG1	2.47	0.45
1:C:3793:LEU:O	1:C:3797:MET:HG3	2.17	0.45
1:C:4735:ASN:HB3	1:C:4738:PHE:HD2	1.81	0.45
1:D:143:LEU:HD23	1:D:207:PHE:CE2	2.52	0.45
1:D:749:LEU:HD22	1:D:755:ILE:HD11	1.99	0.45
1:D:932:ASN:HB2	5:D:5004:KVR:C07	2.46	0.45
1:D:1044:LYS:HG3	1:D:1045:SER:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1962:THR:HG23	1:D:1966:ARG:NE	2.32	0.45
1:D:2155:PHE:HA	1:D:2162:MET:SD	2.56	0.45
1:D:2285:TYR:OH	1:D:2382:ILE:N	2.41	0.45
1:A:2734:MET:CE	1:A:2823:PRO:HB2	2.46	0.45
1:A:2927:GLN:HG2	1:A:2931:ARG:NE	2.31	0.45
1:A:3050:LEU:HD22	1:A:3052:SER:OG	2.17	0.45
1:A:3793:LEU:O	1:A:3797:MET:HG3	2.17	0.45
1:B:143:LEU:HD23	1:B:207:PHE:CE2	2.52	0.45
1:B:3908:LYS:HB2	1:B:3908:LYS:HE3	1.76	0.45
1:C:1473:LYS:NZ	1:C:1475:LYS:HB3	2.31	0.45
1:C:1965:PHE:HB3	1:C:3604:ARG:HH22	1.81	0.45
1:C:1989:PRO:O	1:C:1993:ARG:HG3	2.17	0.45
1:C:2788:ARG:HH21	1:C:2908:LYS:HD2	1.82	0.45
1:C:2927:GLN:HG2	1:C:2931:ARG:NE	2.31	0.45
1:C:3288:LEU:HD21	1:C:3332:THR:HG23	1.99	0.45
1:C:3697:LYS:HA	1:C:3700:HIS:HD2	1.81	0.45
1:C:4194:GLU:HG2	1:C:4645:TRP:HZ3	1.81	0.45
1:D:114:LEU:HB2	1:D:117:HIS:CE1	2.52	0.45
1:D:1965:PHE:HB3	1:D:3604:ARG:HH22	1.81	0.45
1:D:1971:GLU:O	1:D:1975:MET:HG2	2.16	0.45
1:D:2229:LEU:HD13	1:D:2297:ARG:HB2	1.99	0.45
1:D:2788:ARG:HE	1:D:2908:LYS:NZ	2.15	0.45
1:D:3230:GLN:N	1:D:3230:GLN:OE1	2.49	0.45
1:D:3284:ILE:O	1:D:3288:LEU:HB2	2.17	0.45
1:D:3793:LEU:O	1:D:3797:MET:HG3	2.17	0.45
1:D:3921:THR:O	1:D:3925:GLN:HG3	2.17	0.45
1:A:143:LEU:HD23	1:A:207:PHE:CE2	2.52	0.45
1:A:2155:PHE:HA	1:A:2162:MET:SD	2.56	0.45
1:A:2279:MET:SD	1:A:2283:LYS:HD3	2.57	0.45
1:A:3108:LEU:O	1:A:3112:ILE:HG12	2.17	0.45
1:B:851:LEU:HD23	1:B:1212:VAL:HG22	1.99	0.45
1:B:1794:MET:HE2	1:B:1821:LEU:HD13	1.98	0.45
1:B:2090:ARG:HE	1:B:2090:ARG:HB3	1.57	0.45
1:B:2605:MET:HB3	1:B:2606:PRO:HD3	1.98	0.45
1:B:4640:PHE:CG	1:B:4641:PRO:HD3	2.51	0.45
1:B:4735:ASN:HB3	1:B:4738:PHE:HD2	1.81	0.45
1:C:1564:MET:HE3	1:C:1565:PRO:HD2	1.99	0.45
1:C:1611:ILE:HD11	1:C:1618:LEU:HD22	1.98	0.45
1:C:2504:THR:HG23	1:C:2507:LEU:H	1.82	0.45
1:D:668:ALA:HB2	1:D:1012:ILE:HD11	1.99	0.45
1:D:899:GLU:HB2	1:D:970:TYR:CE1	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4038:ASP:OD1	1:D:4039:GLY:N	2.49	0.45
1:A:1035:TYR:CZ	1:A:1043:LYS:HG3	2.52	0.45
1:A:1074:ARG:O	1:A:1077:VAL:HG23	2.16	0.45
1:A:1124:PRO:HD2	1:A:1594:VAL:HG23	1.98	0.45
1:A:2409:ILE:CD1	1:A:2420:ARG:HD2	2.47	0.45
1:A:3664:LEU:O	1:A:3668:ILE:HG13	2.17	0.45
1:B:1074:ARG:O	1:B:1077:VAL:HG23	2.16	0.45
1:B:1850:VAL:HG21	1:B:2061:LEU:HD13	1.97	0.45
1:B:2890:GLN:O	1:B:2894:LYS:HG3	2.15	0.45
1:B:2954:PHE:HE2	1:B:2956:TYR:HB2	1.82	0.45
1:B:4179:GLU:O	1:B:4179:GLU:HG2	2.17	0.45
1:B:4797:GLU:H	1:B:4797:GLU:CD	2.21	0.45
1:C:1645:THR:HG22	1:C:1695:PRO:HG3	1.98	0.45
1:C:2229:LEU:HD13	1:C:2297:ARG:HB2	1.99	0.45
1:C:2734:MET:CE	1:C:2823:PRO:HB2	2.46	0.45
1:D:1898:LEU:HD23	1:D:1902:VAL:CG1	2.47	0.45
1:A:2285:TYR:OH	1:A:2382:ILE:N	2.41	0.45
1:B:881:ILE:HD12	1:B:881:ILE:HA	1.84	0.45
1:B:1989:PRO:O	1:B:1993:ARG:HG3	2.17	0.45
1:B:2285:TYR:OH	1:B:2382:ILE:N	2.41	0.45
1:B:3921:THR:O	1:B:3925:GLN:HG3	2.17	0.45
1:B:4194:GLU:HG2	1:B:4645:TRP:HZ3	1.81	0.45
1:C:866:PRO:HG3	1:C:1005:ASN:HB3	1.98	0.45
1:C:1708:ASP:HA	1:C:1712:SER:HB3	1.98	0.45
1:C:2279:MET:SD	1:C:2283:LYS:HD3	2.57	0.45
1:C:3921:THR:O	1:C:3925:GLN:HG3	2.17	0.45
1:D:137:ARG:HH21	1:D:202:HIS:HB3	1.81	0.45
1:D:1645:THR:HG22	1:D:1695:PRO:HG3	1.98	0.45
1:D:3046:MET:O	1:D:3054:LYS:NZ	2.49	0.45
1:D:4832:GLU:O	1:D:4843:ARG:NH2	2.50	0.45
1:A:2283:LYS:HB3	1:A:2283:LYS:HE2	1.81	0.44
1:A:4194:GLU:HG2	1:A:4645:TRP:HZ3	1.81	0.44
1:B:1446:ILE:HG12	1:B:1542:ALA:HB2	1.99	0.44
1:B:1844:GLN:NE2	1:B:1853:GLU:OE1	2.49	0.44
1:B:1898:LEU:HD23	1:B:1902:VAL:CG1	2.47	0.44
1:B:2763:LEU:CD1	1:B:2767:GLU:HB3	2.46	0.44
1:C:114:LEU:HB2	1:C:117:HIS:CE1	2.52	0.44
1:C:674:TYR:CE1	1:C:756:SER:HB2	2.52	0.44
1:C:1957:LEU:HA	1:C:1960:ARG:NH1	2.32	0.44
1:C:1962:THR:HG23	1:C:1966:ARG:NE	2.32	0.44
1:C:2605:MET:HB3	1:C:2606:PRO:HD3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4797:GLU:H	1:C:4797:GLU:CD	2.21	0.44
1:D:1047:LYS:HD3	1:D:1047:LYS:HA	1.48	0.44
1:D:1074:ARG:O	1:D:1077:VAL:HG23	2.16	0.44
1:D:2957:GLU:HA	1:D:2960:ILE:HG12	1.99	0.44
1:D:3650:GLU:HB2	1:D:3651:PRO:HD3	1.99	0.44
1:D:3697:LYS:HA	1:D:3700:HIS:HD2	1.82	0.44
1:A:2333:PRO:HA	1:A:2336:ARG:HG2	2.00	0.44
1:A:3697:LYS:HA	1:A:3700:HIS:HD2	1.82	0.44
1:A:4797:GLU:H	1:A:4797:GLU:CD	2.21	0.44
1:B:866:PRO:HG3	1:B:1005:ASN:HB3	1.98	0.44
1:B:946:LEU:HD11	1:B:998:LYS:HE2	1.97	0.44
1:B:1833:ILE:O	1:B:1835:HIS:ND1	2.49	0.44
1:B:2222:LEU:HA	1:B:2222:LEU:HD23	1.78	0.44
1:B:2279:MET:SD	1:B:2283:LYS:HD3	2.57	0.44
1:B:3046:MET:O	1:B:3054:LYS:NZ	2.49	0.44
1:B:3050:LEU:HD22	1:B:3052:SER:OG	2.17	0.44
1:C:137:ARG:HH21	1:C:202:HIS:HB3	1.81	0.44
1:C:562:LEU:HG	1:C:600:LEU:HD13	1.98	0.44
1:C:814:LEU:HD23	1:C:815:PRO:O	2.17	0.44
1:C:869:THR:OG1	1:C:941:LYS:HB3	2.16	0.44
1:C:2957:GLU:HA	1:C:2960:ILE:HG12	1.99	0.44
1:D:946:LEU:HD22	1:D:948:CYS:HB2	2.00	0.44
1:D:1124:PRO:HD2	1:D:1594:VAL:HG23	1.98	0.44
1:D:1957:LEU:HA	1:D:1960:ARG:NH1	2.32	0.44
1:D:2333:PRO:HA	1:D:2336:ARG:HG2	2.00	0.44
1:D:2979:ARG:HG2	1:D:3039:THR:HG22	1.98	0.44
1:D:3050:LEU:HD22	1:D:3052:SER:OG	2.17	0.44
1:D:3108:LEU:O	1:D:3112:ILE:HG12	2.17	0.44
1:D:3129:SER:O	1:D:3133:ILE:HG13	2.17	0.44
1:A:866:PRO:HG3	1:A:1005:ASN:HB3	1.98	0.44
1:A:3230:GLN:OE1	1:A:3230:GLN:N	2.49	0.44
1:A:3284:ILE:O	1:A:3288:LEU:HB2	2.17	0.44
1:A:3288:LEU:HD21	1:A:3332:THR:HG23	1.99	0.44
1:A:4038:ASP:OD1	1:A:4039:GLY:N	2.49	0.44
1:B:2333:PRO:HA	1:B:2336:ARG:HG2	2.00	0.44
1:B:2504:THR:HG23	1:B:2507:LEU:H	1.82	0.44
1:B:2734:MET:CE	1:B:2823:PRO:HB2	2.46	0.44
1:B:3129:SER:O	1:B:3133:ILE:HG13	2.17	0.44
1:C:1446:ILE:HG12	1:C:1542:ALA:HB2	1.99	0.44
1:C:2731:LYS:O	1:C:2734:MET:HB2	2.18	0.44
1:C:4179:GLU:O	1:C:4179:GLU:HG2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:386:SER:OG	1:D:387:ILE:N	2.49	0.44
1:D:1611:ILE:HD11	1:D:1618:LEU:HD22	1.98	0.44
1:D:2566:ARG:O	1:D:2570:GLU:HG3	2.17	0.44
1:D:2766:LYS:HA	1:D:2769:GLU:CB	2.48	0.44
1:D:2954:PHE:HE2	1:D:2956:TYR:HB2	1.82	0.44
1:D:3288:LEU:HD21	1:D:3332:THR:HG23	1.99	0.44
1:A:274:LEU:HD23	1:A:274:LEU:HA	1.82	0.44
1:A:939:THR:O	1:A:943:LEU:HD12	2.18	0.44
1:A:1417:TYR:O	1:A:1421:MET:HG2	2.16	0.44
1:A:2504:THR:HG23	1:A:2507:LEU:H	1.82	0.44
1:A:2566:ARG:O	1:A:2570:GLU:HG3	2.17	0.44
1:A:3219:VAL:O	1:A:3223:GLU:HG2	2.18	0.44
1:A:3315:LEU:HA	1:A:3319:PHE:HD2	1.82	0.44
1:B:114:LEU:HB2	1:B:117:HIS:CE1	2.52	0.44
1:B:939:THR:O	1:B:943:LEU:HD12	2.18	0.44
1:B:1734:LYS:NZ	1:B:1930:ASP:OD1	2.49	0.44
1:B:1957:LEU:HA	1:B:1960:ARG:NH1	2.32	0.44
1:B:3249:TRP:HB3	1:B:3266:THR:HG21	2.00	0.44
1:B:3793:LEU:O	1:B:3797:MET:HG3	2.17	0.44
1:C:1853:GLU:OE1	1:C:1853:GLU:N	2.51	0.44
1:C:2566:ARG:O	1:C:2570:GLU:HG3	2.17	0.44
1:C:3050:LEU:HD22	1:C:3052:SER:OG	2.17	0.44
1:C:3650:GLU:HB2	1:C:3651:PRO:HD3	1.99	0.44
1:C:4502:MET:SD	1:C:4585:PHE:HB3	2.58	0.44
1:D:869:THR:OG1	1:D:941:LYS:HB3	2.16	0.44
1:D:3846:LEU:HD13	1:D:3854:PHE:CZ	2.52	0.44
1:A:114:LEU:HB2	1:A:117:HIS:CE1	2.52	0.44
1:A:1965:PHE:HB3	1:A:3604:ARG:HH22	1.81	0.44
1:A:2741:TRP:HH2	1:A:2749:ASP:HA	1.83	0.44
1:A:3249:TRP:HB3	1:A:3266:THR:HG21	2.00	0.44
1:A:4187:GLU:OE1	1:A:4949:TRP:NE1	2.43	0.44
1:A:4714:PHE:CD1	1:D:4294:LEU:HD13	2.52	0.44
1:B:317:MET:HE2	1:B:321:LYS:HG3	1.99	0.44
1:B:842:GLN:HB2	1:B:1603:PHE:HB2	1.98	0.44
1:B:921:PHE:HA	1:B:924:LEU:HB3	1.99	0.44
1:B:2434:GLY:O	1:B:2438:ILE:HG13	2.18	0.44
1:B:4858:LEU:HA	1:B:4861:ILE:HD12	2.00	0.44
1:C:946:LEU:HD22	1:C:948:CYS:HB2	2.00	0.44
1:C:2119:LEU:HB2	1:C:2152:ASN:HD22	1.83	0.44
1:C:3315:LEU:HA	1:C:3319:PHE:HD2	1.82	0.44
1:C:4694:LEU:O	1:C:4697:VAL:HG22	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1989:PRO:O	1:D:1993:ARG:HG3	2.17	0.44
1:D:2723:LYS:HG2	1:D:2895:PHE:HZ	1.83	0.44
1:A:271:ALA:HB2	1:A:488:LEU:HD22	2.00	0.44
1:A:1438:PRO:HD3	1:A:1500:ARG:NE	2.33	0.44
1:A:1957:LEU:HA	1:A:1960:ARG:NH1	2.32	0.44
1:A:2153:LYS:HD3	1:A:2153:LYS:HA	1.66	0.44
1:A:2788:ARG:HH21	1:A:2908:LYS:HD2	1.82	0.44
1:A:2979:ARG:HG2	1:A:3039:THR:HG22	1.98	0.44
1:A:3129:SER:O	1:A:3133:ILE:HG13	2.17	0.44
1:B:1124:PRO:HD2	1:B:1594:VAL:HG23	1.98	0.44
1:B:1962:THR:HG23	1:B:1966:ARG:NE	2.32	0.44
1:B:4694:LEU:O	1:B:4697:VAL:HG22	2.18	0.44
1:C:1124:PRO:HD2	1:C:1594:VAL:HG23	1.99	0.44
1:C:1810:VAL:HB	1:C:1817:LEU:HD13	1.98	0.44
1:C:3664:LEU:O	1:C:3668:ILE:HG13	2.17	0.44
1:C:3846:LEU:HD13	1:C:3854:PHE:CZ	2.53	0.44
1:C:4059:THR:OG1	1:C:4062:GLU:HG3	2.18	0.44
1:D:674:TYR:CE1	1:D:756:SER:HB2	2.52	0.44
1:D:814:LEU:HD23	1:D:815:PRO:O	2.18	0.44
1:D:866:PRO:HG3	1:D:1005:ASN:HB3	1.98	0.44
1:D:2731:LYS:O	1:D:2734:MET:HB2	2.17	0.44
1:D:3019:ILE:HD13	1:D:3096:TYR:HA	2.00	0.44
1:D:3664:LEU:O	1:D:3668:ILE:HG13	2.17	0.44
1:D:4797:GLU:H	1:D:4797:GLU:CD	2.21	0.44
1:A:814:LEU:HD23	1:A:815:PRO:O	2.17	0.44
1:A:2957:GLU:HA	1:A:2960:ILE:HG12	1.99	0.44
1:A:3251:GLU:HA	1:A:3256:ASN:ND2	2.33	0.44
1:A:3921:THR:O	1:A:3925:GLN:HG3	2.17	0.44
2:E:106:ASN:OD1	2:E:107:LEU:N	2.51	0.44
2:F:106:ASN:OD1	2:F:107:LEU:N	2.51	0.44
1:B:674:TYR:CE1	1:B:756:SER:HB2	2.53	0.44
1:B:814:LEU:HD23	1:B:815:PRO:O	2.17	0.44
1:B:842:GLN:HG2	1:B:1605:LYS:HE3	2.00	0.44
1:B:1896:MET:HB2	1:B:1898:LEU:CD1	2.44	0.44
1:B:2731:LYS:O	1:B:2734:MET:HB2	2.17	0.44
1:B:2741:TRP:HH2	1:B:2749:ASP:HA	1.83	0.44
1:B:2957:GLU:HA	1:B:2960:ILE:HG12	1.99	0.44
1:B:3219:VAL:O	1:B:3223:GLU:HG2	2.18	0.44
1:B:3284:ILE:O	1:B:3288:LEU:HB2	2.17	0.44
1:B:3315:LEU:HA	1:B:3319:PHE:HD2	1.82	0.44
1:B:3846:LEU:HD13	1:B:3854:PHE:CZ	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2434:GLY:O	1:C:2438:ILE:HG13	2.18	0.44
1:C:3270:SER:HA	1:C:3273:MET:HE3	2.00	0.44
1:C:4808:ASP:OD2	1:C:4811:THR:N	2.39	0.44
1:D:1035:TYR:CZ	1:D:1043:LYS:HG3	2.52	0.44
1:D:1438:PRO:HD3	1:D:1500:ARG:NE	2.33	0.44
1:D:2167:MET:HE2	1:D:2167:MET:HB3	1.61	0.44
1:D:4502:MET:SD	1:D:4585:PHE:HB3	2.58	0.44
1:A:674:TYR:CE1	1:A:756:SER:HB2	2.52	0.44
1:A:946:LEU:HD22	1:A:948:CYS:HB2	2.00	0.44
1:A:1013:ARG:HD3	1:A:1013:ARG:HA	1.70	0.44
1:A:1446:ILE:HG12	1:A:1542:ALA:HB2	1.99	0.44
1:A:1810:VAL:HB	1:A:1817:LEU:HD13	1.98	0.44
1:A:2229:LEU:HD13	1:A:2297:ARG:HB2	1.99	0.44
1:A:2605:MET:HB3	1:A:2606:PRO:HD3	1.98	0.44
1:A:2766:LYS:HA	1:A:2769:GLU:CB	2.48	0.44
1:A:4694:LEU:O	1:A:4697:VAL:HG22	2.18	0.44
1:A:4858:LEU:HA	1:A:4861:ILE:HD12	2.00	0.44
1:B:668:ALA:HB2	1:B:1012:ILE:HD11	1.99	0.44
1:B:946:LEU:HD22	1:B:948:CYS:HB2	2.00	0.44
1:B:2119:LEU:HB2	1:B:2152:ASN:HD22	1.83	0.44
1:B:3148:VAL:O	1:B:3152:ARG:HG3	2.18	0.44
1:C:411:GLU:OE2	1:C:485:ARG:NE	2.42	0.44
1:C:1044:LYS:HG3	1:C:1045:SER:N	2.31	0.44
1:C:1914:CYS:SG	1:C:2091:GLN:NE2	2.83	0.44
1:C:2409:ILE:CD1	1:C:2420:ARG:HD2	2.47	0.44
1:C:2723:LYS:HG2	1:C:2895:PHE:HZ	1.83	0.44
1:D:271:ALA:HB2	1:D:488:LEU:HD22	2.00	0.44
1:D:939:THR:O	1:D:943:LEU:HD12	2.18	0.44
1:D:2279:MET:SD	1:D:2283:LYS:HD3	2.57	0.44
1:A:2788:ARG:HE	1:A:2908:LYS:NZ	2.15	0.44
1:B:337:LYS:HZ1	1:B:371:TRP:HE1	1.66	0.44
1:B:1035:TYR:CZ	1:B:1043:LYS:HG3	2.52	0.44
1:B:1810:VAL:HB	1:B:1817:LEU:HD13	1.98	0.44
1:B:3251:GLU:HA	1:B:3256:ASN:ND2	2.33	0.44
1:B:4502:MET:SD	1:B:4585:PHE:HB3	2.58	0.44
1:C:441:LYS:NZ	1:C:443:SER:OG	2.51	0.44
1:C:842:GLN:HG2	1:C:1605:LYS:HE3	2.00	0.44
1:C:913:ARG:O	1:C:913:ARG:HG3	2.18	0.44
1:C:1035:TYR:CZ	1:C:1043:LYS:HG3	2.52	0.44
1:C:2954:PHE:HE2	1:C:2956:TYR:HB2	1.82	0.44
1:C:3019:ILE:HD13	1:C:3096:TYR:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3152:ARG:HH12	1:C:3233:HIS:CE1	2.36	0.44
1:D:1050:LEU:HD13	1:D:1050:LEU:HA	1.74	0.44
1:D:2788:ARG:HH21	1:D:2908:LYS:HD2	1.82	0.44
1:D:3908:LYS:HB2	1:D:3908:LYS:HE3	1.76	0.44
1:A:668:ALA:HB2	1:A:1012:ILE:HD11	1.99	0.43
1:A:1989:PRO:O	1:A:1993:ARG:HG3	2.17	0.43
1:A:2593:VAL:HG12	1:A:2644:LEU:HD13	2.00	0.43
1:A:3074:ASN:OD1	1:A:3075:LEU:N	2.51	0.43
1:A:4735:ASN:HB3	1:A:4738:PHE:HD2	1.81	0.43
1:B:2175:MET:O	1:B:2179:LEU:HG	2.18	0.43
1:B:3882:GLN:NE2	1:B:3883:GLU:HG3	2.33	0.43
1:C:1649:GLU:HG2	1:C:1650:LEU:N	2.33	0.43
1:C:2666:LEU:HD11	1:C:2969:PRO:HB2	2.00	0.43
1:C:3129:SER:O	1:C:3133:ILE:HG13	2.17	0.43
1:D:3148:VAL:O	1:D:3152:ARG:HG3	2.18	0.43
1:A:317:MET:HE2	1:A:321:LYS:HG3	2.00	0.43
1:A:921:PHE:HA	1:A:924:LEU:HB3	1.99	0.43
1:A:1649:GLU:HG2	1:A:1650:LEU:N	2.33	0.43
1:A:1681:ASP:HB3	1:A:1683:PRO:HD2	2.00	0.43
1:B:804:LEU:HD13	1:B:832:LEU:HD21	2.00	0.43
1:B:1047:LYS:HD3	1:B:1047:LYS:HA	1.48	0.43
1:B:1438:PRO:HD3	1:B:1500:ARG:NE	2.33	0.43
1:B:1681:ASP:HB3	1:B:1683:PRO:HD2	2.00	0.43
1:B:1853:GLU:OE1	1:B:1853:GLU:N	2.51	0.43
1:B:2229:LEU:HD13	1:B:2297:ARG:HB2	1.99	0.43
1:C:939:THR:O	1:C:943:LEU:HD12	2.18	0.43
1:C:1794:MET:HE2	1:C:1821:LEU:HD13	1.98	0.43
1:C:2333:PRO:HA	1:C:2336:ARG:HG2	2.00	0.43
1:C:2766:LYS:HA	1:C:2769:GLU:CB	2.47	0.43
1:C:3046:MET:O	1:C:3054:LYS:NZ	2.49	0.43
1:C:3249:TRP:HB3	1:C:3266:THR:HG21	2.00	0.43
1:D:168:GLN:OE1	1:D:168:GLN:N	2.46	0.43
1:D:902:TRP:HA	1:D:913:ARG:HD2	2.01	0.43
1:D:933:LEU:O	1:D:937:LEU:HG	2.18	0.43
1:D:1446:ILE:HG12	1:D:1542:ALA:HB2	1.99	0.43
1:D:1681:ASP:HB3	1:D:1683:PRO:HD2	2.00	0.43
1:D:2943:PHE:O	1:D:2947:SER:CB	2.65	0.43
1:D:3152:ARG:HH12	1:D:3233:HIS:CE1	2.36	0.43
1:D:4251:ASN:O	1:D:4254:THR:OG1	2.32	0.43
1:A:804:LEU:HD13	1:A:832:LEU:HD21	2.00	0.43
1:A:842:GLN:HG2	1:A:1605:LYS:HE3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2434:GLY:O	1:A:2438:ILE:HG13	2.18	0.43
1:A:2893:LEU:HD23	1:A:2893:LEU:HA	1.90	0.43
1:A:3650:GLU:HB2	1:A:3651:PRO:HD3	1.99	0.43
1:A:3846:LEU:HD13	1:A:3854:PHE:CZ	2.53	0.43
1:A:4273:LYS:HA	1:A:4273:LYS:HD2	1.80	0.43
1:A:4690:LYS:HB3	1:A:4690:LYS:HE2	1.87	0.43
1:B:933:LEU:O	1:B:937:LEU:HG	2.18	0.43
1:B:2167:MET:HB3	1:B:2167:MET:HE2	1.62	0.43
1:B:2666:LEU:HD11	1:B:2969:PRO:HB2	2.00	0.43
1:B:2723:LYS:HG2	1:B:2895:PHE:HZ	1.83	0.43
1:B:2766:LYS:HA	1:B:2769:GLU:CB	2.47	0.43
1:B:3270:SER:HA	1:B:3273:MET:HE3	1.99	0.43
1:C:933:LEU:O	1:C:937:LEU:HG	2.18	0.43
1:C:1825:PHE:CZ	1:C:1842:ILE:HG12	2.54	0.43
1:C:2741:TRP:HH2	1:C:2749:ASP:HA	1.83	0.43
1:C:3219:VAL:O	1:C:3223:GLU:HG2	2.18	0.43
1:C:3234:VAL:HG22	1:C:3238:ILE:HD12	2.00	0.43
1:C:3882:GLN:NE2	1:C:3883:GLU:HG3	2.34	0.43
1:C:4943:MET:HE1	1:C:4950:GLU:HB2	2.00	0.43
1:D:1140:PHE:CE2	1:D:1141:LYS:HE3	2.53	0.43
1:D:1794:MET:HE2	1:D:1821:LEU:HD13	1.98	0.43
1:D:2175:MET:O	1:D:2179:LEU:HG	2.19	0.43
1:D:2409:ILE:CD1	1:D:2420:ARG:HD2	2.47	0.43
1:D:3102:LEU:HD21	1:D:3155:LEU:HD23	2.00	0.43
1:D:3215:MET:HA	1:D:3215:MET:CE	2.49	0.43
1:D:4059:THR:OG1	1:D:4062:GLU:HG3	2.18	0.43
1:D:4187:GLU:OE1	1:D:4949:TRP:NE1	2.43	0.43
1:A:137:ARG:NH2	1:A:202:HIS:HB3	2.33	0.43
1:A:606:ARG:HH22	1:A:1632:ILE:HG23	1.84	0.43
1:A:913:ARG:O	1:A:913:ARG:HG3	2.18	0.43
1:A:2723:LYS:HG2	1:A:2895:PHE:HZ	1.83	0.43
1:A:3152:ARG:HH12	1:A:3233:HIS:CE1	2.36	0.43
1:A:4250:TYR:O	1:A:4254:THR:HG23	2.19	0.43
1:B:308:LEU:HD13	1:B:393:MET:HG2	2.00	0.43
1:B:1649:GLU:HG2	1:B:1650:LEU:N	2.33	0.43
1:B:3650:GLU:HB2	1:B:3651:PRO:HD3	1.99	0.43
1:B:4694:LEU:HA	1:B:4697:VAL:HG22	2.01	0.43
1:C:271:ALA:HB2	1:C:488:LEU:HD22	2.00	0.43
1:C:921:PHE:HA	1:C:924:LEU:HB3	1.99	0.43
1:C:3148:VAL:O	1:C:3152:ARG:HG3	2.18	0.43
1:C:3251:GLU:HA	1:C:3256:ASN:ND2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4858:LEU:HA	1:C:4861:ILE:HD12	2.00	0.43
1:D:606:ARG:HH22	1:D:1632:ILE:HG23	1.84	0.43
1:D:1853:GLU:OE1	1:D:1853:GLU:N	2.51	0.43
1:A:1734:LYS:NZ	1:A:1930:ASP:OD1	2.49	0.43
1:A:2146:LEU:HD23	1:A:2146:LEU:HA	1.88	0.43
1:A:3102:LEU:HD21	1:A:3155:LEU:HD23	2.00	0.43
1:A:3215:MET:HA	1:A:3215:MET:CE	2.49	0.43
1:B:913:ARG:O	1:B:913:ARG:HG3	2.18	0.43
1:B:2593:VAL:HG12	1:B:2644:LEU:HD13	2.00	0.43
1:B:2830:ASN:OD1	1:C:1549:SER:HB2	2.19	0.43
1:C:2689:MET:O	1:C:2691:LYS:NZ	2.47	0.43
1:C:3215:MET:CE	1:C:3215:MET:HA	2.49	0.43
1:C:4694:LEU:HA	1:C:4697:VAL:HG22	2.01	0.43
1:D:262:TYR:HB2	1:D:389:ARG:HG3	2.01	0.43
1:D:849:ASP:OD1	1:D:1214:ARG:NE	2.52	0.43
1:D:2256:ALA:O	1:D:2258:ARG:NH1	2.52	0.43
1:D:3249:TRP:HB3	1:D:3266:THR:HG21	2.00	0.43
1:A:125:TYR:CZ	1:A:417:ARG:HG2	2.54	0.43
1:A:1140:PHE:CE2	1:A:1141:LYS:HE3	2.53	0.43
1:A:2175:MET:O	1:A:2179:LEU:HG	2.19	0.43
1:A:2764:SER:O	1:A:2768:LYS:HG3	2.19	0.43
1:A:4059:THR:OG1	1:A:4062:GLU:HG3	2.18	0.43
1:A:4502:MET:SD	1:A:4585:PHE:HB3	2.58	0.43
1:B:271:ALA:HB2	1:B:488:LEU:HD22	2.00	0.43
1:B:441:LYS:NZ	1:B:443:SER:OG	2.51	0.43
1:B:1140:PHE:CE2	1:B:1141:LYS:HE3	2.53	0.43
1:B:1564:MET:HE3	1:B:1565:PRO:HD2	2.01	0.43
1:B:1894:LEU:HD22	1:B:2065:THR:HG21	2.00	0.43
1:B:2153:LYS:HA	1:B:2153:LYS:HD3	1.66	0.43
1:B:3019:ILE:HD13	1:B:3096:TYR:HA	2.00	0.43
1:B:3212:GLU:O	1:B:3215:MET:N	2.51	0.43
1:B:4059:THR:OG1	1:B:4062:GLU:HG3	2.18	0.43
1:B:4250:TYR:O	1:B:4254:THR:HG23	2.19	0.43
1:C:262:TYR:HB2	1:C:389:ARG:HG3	2.01	0.43
1:C:1438:PRO:HD3	1:C:1500:ARG:NE	2.33	0.43
1:C:1681:ASP:HB3	1:C:1683:PRO:HD2	2.00	0.43
1:C:2090:ARG:HE	1:C:2090:ARG:HB3	1.57	0.43
1:C:2159:PRO:O	1:C:2162:MET:HB2	2.19	0.43
1:C:2166:GLY:HA2	1:C:2168:HIS:CE1	2.53	0.43
1:C:4250:TYR:O	1:C:4254:THR:HG23	2.19	0.43
1:D:137:ARG:NH2	1:D:202:HIS:HB3	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:921:PHE:HA	1:D:924:LEU:HB3	1.99	0.43
1:D:3072:MET:O	1:D:3076:LYS:HE2	2.19	0.43
1:D:4694:LEU:O	1:D:4697:VAL:HG22	2.18	0.43
1:A:902:TRP:HA	1:A:913:ARG:HD2	2.01	0.43
1:A:1969:PRO:HD3	1:A:3605:MET:HE1	2.01	0.43
1:A:2159:PRO:O	1:A:2162:MET:HB2	2.19	0.43
1:A:2943:PHE:O	1:A:2947:SER:CB	2.65	0.43
1:A:3212:GLU:O	1:A:3215:MET:N	2.51	0.43
1:A:4294:LEU:HD22	1:B:4719:PHE:CE2	2.54	0.43
2:G:3:VAL:HG23	2:G:62:GLU:OE2	2.19	0.43
1:B:1444:GLY:CA	1:B:1487:MET:HG2	2.49	0.43
1:B:3137:LEU:CB	1:B:3159:LEU:HD13	2.49	0.43
1:B:3152:ARG:HH12	1:B:3233:HIS:CE1	2.36	0.43
1:C:606:ARG:HH22	1:C:1632:ILE:HG23	1.84	0.43
1:C:929:ARG:HH22	1:C:933:LEU:HD22	1.84	0.43
1:C:1976:LEU:HD23	1:C:1987:PRO:HD2	2.00	0.43
1:D:1649:GLU:HG2	1:D:1650:LEU:N	2.33	0.43
1:D:1825:PHE:CZ	1:D:1842:ILE:HG12	2.54	0.43
1:D:2106:TYR:OH	1:D:3615:ARG:NH1	2.52	0.43
1:D:2153:LYS:HD3	1:D:2153:LYS:HA	1.66	0.43
1:D:2741:TRP:HH2	1:D:2749:ASP:HA	1.83	0.43
1:D:3074:ASN:OD1	1:D:3075:LEU:N	2.51	0.43
1:D:3137:LEU:CB	1:D:3159:LEU:HD13	2.49	0.43
1:D:3219:VAL:O	1:D:3223:GLU:HG2	2.18	0.43
1:D:3882:GLN:NE2	1:D:3883:GLU:HG3	2.33	0.43
1:D:4250:TYR:O	1:D:4254:THR:HG23	2.19	0.43
1:A:1444:GLY:CA	1:A:1487:MET:HG2	2.49	0.43
1:A:1976:LEU:HD23	1:A:1987:PRO:HD2	2.00	0.43
1:A:3011:LEU:CB	1:A:3033:LEU:HD21	2.49	0.43
2:E:3:VAL:HG23	2:E:62:GLU:OE2	2.19	0.43
2:F:3:VAL:HG23	2:F:62:GLU:OE2	2.19	0.43
2:G:106:ASN:OD1	2:G:107:LEU:N	2.51	0.43
2:H:106:ASN:OD1	2:H:107:LEU:N	2.51	0.43
1:B:270:HIS:CE1	1:B:491:GLU:HG3	2.54	0.43
1:B:2159:PRO:O	1:B:2162:MET:HB2	2.19	0.43
1:B:3074:ASN:OD1	1:B:3075:LEU:N	2.51	0.43
1:B:3234:VAL:HG22	1:B:3238:ILE:HD12	2.00	0.43
1:B:3641:ILE:HG22	1:B:3730:ARG:HE	1.84	0.43
1:B:3744:ILE:O	1:B:3747:SER:OG	2.31	0.43
1:B:4795:LYS:HD2	1:B:4795:LYS:HA	1.79	0.43
1:C:2326:ARG:HD3	1:C:2326:ARG:HA	1.73	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2337:GLY:O	1:D:141:ASP:HA	2.18	0.43
1:C:2966:VAL:HG12	1:C:2970:LEU:HD23	2.01	0.43
1:C:3137:LEU:CB	1:C:3159:LEU:HD13	2.49	0.43
1:C:3212:GLU:O	1:C:3215:MET:N	2.51	0.43
1:D:59:PRO:HG3	1:D:296:ARG:CZ	2.49	0.43
1:D:929:ARG:HH22	1:D:933:LEU:HD22	1.84	0.43
1:D:1056:THR:HG22	1:D:1060:TYR:CZ	2.54	0.43
1:D:3251:GLU:HA	1:D:3256:ASN:ND2	2.33	0.43
1:D:3981:MET:HE2	1:D:3981:MET:HB3	1.86	0.43
1:A:3965:ILE:HG22	1:A:3969:LYS:HZ2	1.84	0.43
1:B:137:ARG:NH2	1:B:202:HIS:HB3	2.33	0.43
1:B:505:LEU:HD23	1:B:505:LEU:HA	1.89	0.43
1:B:992:GLN:O	1:B:996:VAL:HG23	2.19	0.43
1:B:1690:GLU:HG3	1:B:1790:LYS:HZ1	1.83	0.43
1:B:2874:TYR:HA	1:B:2877:LEU:HD12	2.01	0.43
1:C:59:PRO:HG3	1:C:296:ARG:CZ	2.49	0.43
1:C:125:TYR:CZ	1:C:417:ARG:HG2	2.54	0.43
1:C:992:GLN:O	1:C:996:VAL:HG23	2.19	0.43
1:C:1140:PHE:CE2	1:C:1141:LYS:HE3	2.53	0.43
1:C:1894:LEU:HD22	1:C:2065:THR:HG21	2.00	0.43
1:D:842:GLN:HG2	1:D:1605:LYS:HE3	2.00	0.43
1:D:1444:GLY:CA	1:D:1487:MET:HG2	2.49	0.43
1:D:1894:LEU:HD22	1:D:2065:THR:HG21	2.00	0.43
1:D:2166:GLY:HA2	1:D:2168:HIS:CE1	2.54	0.43
1:D:2764:SER:O	1:D:2768:LYS:HG3	2.19	0.43
1:D:3011:LEU:CB	1:D:3033:LEU:HD21	2.49	0.43
1:D:3014:LEU:HA	1:D:3018:ARG:HH21	1.84	0.43
1:D:3187:LYS:HZ2	1:D:3191:GLU:HB3	1.84	0.43
1:D:4567:TYR:O	1:D:4567:TYR:CD2	2.72	0.43
1:D:4858:LEU:HA	1:D:4861:ILE:HD12	2.00	0.43
1:A:441:LYS:NZ	1:A:443:SER:OG	2.51	0.43
1:A:1299:ILE:HG12	1:A:1546:GLN:HB2	2.01	0.43
1:A:3137:LEU:CB	1:A:3159:LEU:HD13	2.49	0.43
1:A:3227:ARG:HH11	1:A:3228:TYR:HB3	1.84	0.43
2:H:69:LEU:HD12	2:H:69:LEU:HA	1.93	0.43
1:B:125:TYR:CZ	1:B:417:ARG:HG2	2.54	0.43
1:B:1825:PHE:CZ	1:B:1842:ILE:HG12	2.54	0.43
1:B:2256:ALA:O	1:B:2258:ARG:NH1	2.52	0.43
1:B:3102:LEU:HD21	1:B:3155:LEU:HD23	2.00	0.43
1:C:137:ARG:NH2	1:C:202:HIS:HB3	2.34	0.43
1:C:1013:ARG:HA	1:C:1013:ARG:HD3	1.69	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1444:GLY:CA	1:C:1487:MET:HG2	2.49	0.43
1:C:2664:LEU:HD23	1:C:2664:LEU:HA	1.86	0.43
1:C:3187:LYS:HZ2	1:C:3191:GLU:HB3	1.83	0.43
1:D:2159:PRO:O	1:D:2162:MET:HB2	2.19	0.43
1:D:2290:TRP:CZ2	1:D:2388:ILE:HG12	2.54	0.43
1:D:2347:MET:O	1:D:2351:ILE:HG12	2.19	0.43
1:D:2434:GLY:O	1:D:2438:ILE:HG13	2.18	0.43
1:A:262:TYR:HB2	1:A:389:ARG:HG3	2.01	0.42
1:A:882:ARG:HH12	1:A:933:LEU:HD21	1.84	0.42
1:A:2166:GLY:HA2	1:A:2168:HIS:CE1	2.54	0.42
1:A:2256:ALA:O	1:A:2258:ARG:NH1	2.52	0.42
1:A:2954:PHE:HE2	1:A:2956:TYR:HB2	1.82	0.42
1:A:3019:ILE:HD13	1:A:3096:TYR:HA	2.00	0.42
1:A:4488:GLN:OE1	1:D:4283:PHE:CD1	2.72	0.42
1:B:2943:PHE:O	1:B:2947:SER:CB	2.65	0.42
1:B:3011:LEU:CB	1:B:3033:LEU:HD21	2.49	0.42
1:B:3072:MET:O	1:B:3076:LYS:HE2	2.19	0.42
1:B:3149:GLU:OE2	1:B:3152:ARG:NH2	2.41	0.42
1:B:3215:MET:HA	1:B:3215:MET:CE	2.49	0.42
1:B:3215:MET:HA	1:B:3215:MET:HE2	2.01	0.42
1:B:3290:ILE:O	1:B:3292:GLU:N	2.52	0.42
1:B:3965:ILE:HG22	1:B:3969:LYS:HZ2	1.84	0.42
1:C:804:LEU:HD13	1:C:832:LEU:HD21	2.01	0.42
1:C:849:ASP:OD1	1:C:1214:ARG:NE	2.52	0.42
1:C:1132:GLU:HB3	1:C:1147:GLN:NE2	2.34	0.42
1:C:2256:ALA:O	1:C:2258:ARG:NH1	2.52	0.42
1:C:2874:TYR:HA	1:C:2877:LEU:HD12	2.01	0.42
1:C:3641:ILE:HG22	1:C:3730:ARG:HE	1.84	0.42
1:D:441:LYS:NZ	1:D:443:SER:OG	2.51	0.42
1:D:913:ARG:O	1:D:913:ARG:HG3	2.18	0.42
1:D:2580:LEU:HD12	1:D:2580:LEU:HA	1.83	0.42
1:D:3918:ASN:HA	1:D:3921:THR:HG22	2.01	0.42
1:A:308:LEU:HD13	1:A:393:MET:HG2	2.00	0.42
1:A:933:LEU:O	1:A:937:LEU:HG	2.18	0.42
1:A:1007:TRP:CZ2	1:A:1031:ARG:HD3	2.54	0.42
1:A:1132:GLU:HB3	1:A:1147:GLN:NE2	2.35	0.42
1:A:1853:GLU:OE1	1:A:1853:GLU:N	2.51	0.42
1:A:2106:TYR:OH	1:A:3615:ARG:NH1	2.52	0.42
1:A:2290:TRP:CZ2	1:A:2388:ILE:HG12	2.54	0.42
1:A:2332:GLY:O	1:A:2336:ARG:HG2	2.20	0.42
1:A:2731:LYS:O	1:A:2734:MET:HB2	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3148:VAL:O	1:A:3152:ARG:HG3	2.18	0.42
1:A:3270:SER:HA	1:A:3273:MET:HE3	2.00	0.42
1:A:3882:GLN:NE2	1:A:3883:GLU:HG3	2.33	0.42
1:A:3918:ASN:HA	1:A:3921:THR:HG22	2.01	0.42
1:A:3968:LEU:O	1:A:3972:MET:HG2	2.19	0.42
2:H:24:VAL:HG12	2:H:105:LEU:HD12	2.02	0.42
1:B:606:ARG:HH22	1:B:1632:ILE:HG23	1.84	0.42
1:B:2684:ASN:HD22	1:B:2913:ASP:H	1.67	0.42
1:B:2764:SER:O	1:B:2768:LYS:HG3	2.19	0.42
1:B:4251:ASN:O	1:B:4254:THR:OG1	2.32	0.42
1:C:2106:TYR:OH	1:C:3615:ARG:NH1	2.52	0.42
1:C:2959:GLU:OE1	1:C:2959:GLU:N	2.52	0.42
1:C:3102:LEU:HD21	1:C:3155:LEU:HD23	2.00	0.42
1:C:3284:ILE:O	1:C:3288:LEU:HB2	2.17	0.42
1:D:270:HIS:CE1	1:D:491:GLU:HG3	2.54	0.42
1:D:317:MET:HE2	1:D:321:LYS:HG3	2.00	0.42
1:D:1132:GLU:HB3	1:D:1147:GLN:NE2	2.34	0.42
1:D:1299:ILE:HG12	1:D:1546:GLN:HB2	2.01	0.42
1:D:3700:HIS:CE1	1:D:3702:GLU:H	2.37	0.42
1:A:839:GLU:HB2	1:A:851:LEU:HD12	2.01	0.42
1:A:2666:LEU:HD11	1:A:2969:PRO:HB2	2.00	0.42
1:A:2684:ASN:HD22	1:A:2913:ASP:H	1.67	0.42
1:A:2821:TYR:O	1:A:2823:PRO:HD3	2.20	0.42
1:A:3892:TYR:OH	1:A:3899:ASP:OD1	2.23	0.42
1:A:4061:SER:O	1:A:4064:GLU:HG3	2.19	0.42
1:A:4089:GLU:CG	1:A:4090:PRO:HD3	2.49	0.42
1:A:4710:LEU:HD23	1:A:4710:LEU:HA	1.94	0.42
1:A:4719:PHE:CE2	1:D:4294:LEU:HD22	2.54	0.42
1:A:4752:THR:HG21	1:B:4765:LYS:HE3	2.00	0.42
1:B:59:PRO:HG3	1:B:296:ARG:CZ	2.49	0.42
1:B:902:TRP:HA	1:B:913:ARG:HD2	2.01	0.42
1:B:1132:GLU:HB3	1:B:1147:GLN:NE2	2.35	0.42
1:B:3268:LEU:HD23	1:B:3268:LEU:HA	1.75	0.42
1:C:308:LEU:HD13	1:C:393:MET:HG2	2.00	0.42
1:C:1011:ARG:HD3	1:C:1011:ARG:HA	1.72	0.42
1:C:1426:TYR:HA	1:C:1564:MET:O	2.19	0.42
1:C:2593:VAL:HG12	1:C:2644:LEU:HD13	2.00	0.42
1:C:4061:SER:O	1:C:4064:GLU:HG3	2.19	0.42
1:C:4089:GLU:CG	1:C:4090:PRO:HD3	2.49	0.42
1:D:839:GLU:HB2	1:D:851:LEU:HD12	2.01	0.42
1:D:882:ARG:HH12	1:D:933:LEU:HD21	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2472:LEU:HD12	1:D:2472:LEU:HA	1.90	0.42
1:D:2966:VAL:HG12	1:D:2970:LEU:HD23	2.01	0.42
1:D:4061:SER:O	1:D:4064:GLU:HG3	2.19	0.42
1:A:270:HIS:CE1	1:A:491:GLU:HG3	2.54	0.42
1:A:849:ASP:OD1	1:A:1214:ARG:NE	2.52	0.42
1:A:2689:MET:O	1:A:2691:LYS:NZ	2.47	0.42
1:A:2874:TYR:HA	1:A:2877:LEU:HD12	2.01	0.42
1:A:2966:VAL:HG12	1:A:2970:LEU:HD23	2.01	0.42
1:A:3966:GLU:HG3	1:A:3970:GLU:OE2	2.20	0.42
2:F:43:ARG:HH21	2:F:45:LYS:HE3	1.83	0.42
2:H:43:ARG:HH21	2:H:45:LYS:HE3	1.83	0.42
1:B:1426:TYR:HA	1:B:1564:MET:O	2.19	0.42
1:C:1299:ILE:HG12	1:C:1546:GLN:HB2	2.01	0.42
1:C:2427:ILE:HD13	1:C:2471:PHE:CZ	2.55	0.42
1:C:3072:MET:O	1:C:3076:LYS:HE2	2.19	0.42
1:C:3260:ARG:HD2	1:C:3260:ARG:O	2.20	0.42
1:D:308:LEU:HD13	1:D:393:MET:HG2	2.00	0.42
1:D:2332:GLY:O	1:D:2336:ARG:HG2	2.20	0.42
1:D:2427:ILE:HD13	1:D:2471:PHE:CZ	2.55	0.42
1:D:2874:TYR:HA	1:D:2877:LEU:HD12	2.01	0.42
1:A:2119:LEU:HB2	1:A:2152:ASN:HD22	1.83	0.42
1:A:2347:MET:O	1:A:2351:ILE:HG12	2.19	0.42
1:A:3072:MET:O	1:A:3076:LYS:HE2	2.19	0.42
1:A:3269:ASN:O	1:A:3272:HIS:HB2	2.19	0.42
1:A:3946:GLY:O	1:A:3950:VAL:HG23	2.20	0.42
2:H:36:LYS:HE3	2:H:36:LYS:HB3	1.84	0.42
1:B:2182:GLY:HA3	1:B:2185:LYS:HE3	2.02	0.42
1:B:2326:ARG:HA	1:B:2326:ARG:HD3	1.74	0.42
1:B:2573:LEU:HD12	1:B:2573:LEU:HA	1.89	0.42
1:B:2821:TYR:O	1:B:2823:PRO:HD3	2.20	0.42
1:B:3005:THR:HG21	1:B:3045:VAL:HG21	2.02	0.42
1:B:3260:ARG:O	1:B:3260:ARG:HD2	2.19	0.42
1:C:317:MET:HE2	1:C:321:LYS:HG3	2.00	0.42
1:C:3011:LEU:CB	1:C:3033:LEU:HD21	2.49	0.42
1:C:3290:ILE:O	1:C:3292:GLU:N	2.52	0.42
1:D:125:TYR:CZ	1:D:417:ARG:HG2	2.54	0.42
1:D:1045:SER:HA	1:D:1048:ASP:OD2	2.20	0.42
1:D:1976:LEU:HD23	1:D:1987:PRO:HD2	2.00	0.42
1:D:3968:LEU:O	1:D:3972:MET:HG2	2.19	0.42
1:A:1056:THR:HG22	1:A:1060:TYR:CZ	2.54	0.42
1:A:1825:PHE:CZ	1:A:1842:ILE:HG12	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3005:THR:HG21	1:A:3045:VAL:HG21	2.02	0.42
1:A:3700:HIS:CE1	1:A:3702:GLU:H	2.37	0.42
1:A:4567:TYR:O	1:A:4567:TYR:CD2	2.72	0.42
2:G:24:VAL:HG12	2:G:105:LEU:HD12	2.01	0.42
1:B:839:GLU:HB2	1:B:851:LEU:HD12	2.01	0.42
1:B:929:ARG:HH22	1:B:933:LEU:HD22	1.84	0.42
1:B:3187:LYS:HZ2	1:B:3191:GLU:HB3	1.83	0.42
1:B:3966:GLU:HG3	1:B:3970:GLU:OE2	2.20	0.42
1:B:3968:LEU:O	1:B:3972:MET:HG2	2.19	0.42
1:C:902:TRP:HA	1:C:913:ARG:HD2	2.01	0.42
1:C:918:LEU:HD12	1:C:918:LEU:HA	1.83	0.42
1:C:1045:SER:HA	1:C:1048:ASP:OD2	2.20	0.42
1:C:2290:TRP:CZ2	1:C:2388:ILE:HG12	2.54	0.42
1:C:2332:GLY:O	1:C:2336:ARG:HG2	2.20	0.42
1:C:3074:ASN:OD1	1:C:3075:LEU:N	2.51	0.42
1:C:3269:ASN:O	1:C:3272:HIS:HB2	2.19	0.42
1:D:1426:TYR:HA	1:D:1564:MET:O	2.19	0.42
1:D:3260:ARG:HD2	1:D:3260:ARG:O	2.19	0.42
1:D:3946:GLY:O	1:D:3950:VAL:HG23	2.20	0.42
1:A:3059:ALA:O	1:A:3063:ASN:ND2	2.36	0.42
1:B:1969:PRO:HD3	1:B:3605:MET:HE1	2.01	0.42
1:B:1976:LEU:HD23	1:B:1987:PRO:HD2	2.00	0.42
1:B:3014:LEU:HA	1:B:3018:ARG:HH21	1.84	0.42
1:B:4061:SER:O	1:B:4064:GLU:HG3	2.19	0.42
1:C:2167:MET:HE2	1:C:2167:MET:HB3	1.62	0.42
1:C:2849:HIS:CE1	1:C:2877:LEU:HD11	2.55	0.42
1:C:3966:GLU:HG3	1:C:3970:GLU:OE2	2.20	0.42
1:D:804:LEU:HD13	1:D:832:LEU:HD21	2.01	0.42
1:D:1269:GLU:HB2	1:D:1288:LYS:HG3	2.02	0.42
1:D:3005:THR:HG21	1:D:3045:VAL:HG21	2.02	0.42
1:D:3641:ILE:HG22	1:D:3730:ARG:HE	1.84	0.42
1:D:4089:GLU:CG	1:D:4090:PRO:HD3	2.49	0.42
1:A:306:LEU:HA	1:A:316:LEU:HD23	2.02	0.42
1:A:929:ARG:HH22	1:A:933:LEU:HD22	1.84	0.42
1:A:1045:SER:HA	1:A:1048:ASP:OD2	2.20	0.42
1:A:1894:LEU:HD22	1:A:2065:THR:HG21	2.00	0.42
1:A:4694:LEU:HA	1:A:4697:VAL:HG22	2.00	0.42
1:B:1007:TRP:CZ2	1:B:1031:ARG:HD3	2.55	0.42
1:B:1299:ILE:HG12	1:B:1546:GLN:HB2	2.01	0.42
1:B:2134:MET:HG2	1:B:2192:MET:HE3	2.01	0.42
1:B:3700:HIS:CE1	1:B:3702:GLU:H	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4089:GLU:CG	1:B:4090:PRO:HD3	2.49	0.42
1:C:2175:MET:O	1:C:2179:LEU:HG	2.19	0.42
1:C:3005:THR:HG21	1:C:3045:VAL:HG21	2.02	0.42
1:C:3014:LEU:HA	1:C:3018:ARG:HH21	1.84	0.42
1:D:2146:LEU:HD23	1:D:2146:LEU:HA	1.88	0.42
1:D:3006:SER:HB3	1:D:3053:VAL:HG22	2.02	0.42
1:A:59:PRO:HG3	1:A:296:ARG:CZ	2.49	0.42
1:A:168:GLN:HG3	1:D:240:HIS:CD2	2.55	0.42
1:A:2427:ILE:HD13	1:A:2471:PHE:CZ	2.55	0.42
1:A:3126:VAL:HA	1:A:3129:SER:OG	2.20	0.42
1:A:3260:ARG:HD2	1:A:3260:ARG:O	2.19	0.42
1:A:3981:MET:HE2	1:A:3981:MET:HB3	1.92	0.42
2:G:43:ARG:HH21	2:G:45:LYS:HE3	1.83	0.42
1:B:290:ARG:HD3	1:B:343:ARG:NH2	2.35	0.42
1:B:849:ASP:OD1	1:B:1214:ARG:NE	2.52	0.42
1:B:882:ARG:HH12	1:B:933:LEU:HD21	1.85	0.42
1:B:1056:THR:HG22	1:B:1060:TYR:CZ	2.54	0.42
1:B:1102:TYR:N	1:B:1237:GLU:O	2.53	0.42
1:B:2966:VAL:HG12	1:B:2970:LEU:HD23	2.01	0.42
1:B:4832:GLU:O	1:B:4843:ARG:NH1	2.51	0.42
1:C:241:MET:SD	1:C:241:MET:N	2.89	0.42
1:C:1012:ILE:HG22	1:C:1013:ARG:HH12	1.85	0.42
1:C:1102:TYR:N	1:C:1237:GLU:O	2.53	0.42
1:C:2347:MET:O	1:C:2351:ILE:HG12	2.19	0.42
1:C:3227:ARG:HB3	1:C:3230:GLN:OE1	2.20	0.42
1:C:3918:ASN:HA	1:C:3921:THR:HG22	2.01	0.42
1:C:4567:TYR:O	1:C:4567:TYR:CD2	2.72	0.42
1:D:1008:ALA:O	1:D:1012:ILE:HG12	2.20	0.42
1:D:4273:LYS:HA	1:D:4273:LYS:HD2	1.80	0.42
1:D:4694:LEU:HA	1:D:4697:VAL:HG22	2.01	0.42
1:A:630:HIS:CE1	1:A:1671:ARG:HE	2.38	0.42
1:A:2182:GLY:HA3	1:A:2185:LYS:HE3	2.02	0.42
1:A:3014:LEU:HA	1:A:3018:ARG:HH21	1.84	0.42
1:A:3641:ILE:HG22	1:A:3730:ARG:HE	1.84	0.42
2:E:43:ARG:HH21	2:E:45:LYS:HE3	1.83	0.42
1:B:262:TYR:HB2	1:B:389:ARG:HG3	2.01	0.42
1:B:1013:ARG:HA	1:B:1013:ARG:HD3	1.69	0.42
1:B:1050:LEU:HD13	1:B:1050:LEU:HA	1.74	0.42
1:B:1914:CYS:SG	1:B:2091:GLN:NE2	2.83	0.42
1:B:2332:GLY:O	1:B:2336:ARG:HG2	2.20	0.42
1:B:3126:VAL:HA	1:B:3129:SER:OG	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3918:ASN:HA	1:B:3921:THR:HG22	2.01	0.42
1:C:881:ILE:HD12	1:C:881:ILE:HA	1.84	0.42
1:C:882:ARG:HH12	1:C:933:LEU:HD21	1.85	0.42
1:C:902:TRP:CE3	1:C:913:ARG:HD3	2.55	0.42
1:C:1007:TRP:CZ2	1:C:1031:ARG:HD3	2.54	0.42
1:C:1056:THR:HG22	1:C:1060:TYR:CZ	2.54	0.42
1:C:1100:ARG:NH2	1:C:1234:GLU:O	2.47	0.42
1:C:1697:LEU:HD23	1:C:1697:LEU:HA	1.91	0.42
1:C:1962:THR:HA	1:C:1965:PHE:HD2	1.85	0.42
1:C:2821:TYR:O	1:C:2823:PRO:HD3	2.20	0.42
1:C:2835:ARG:HE	1:C:2835:ARG:HB3	1.41	0.42
1:C:3171:LEU:HD23	1:C:3171:LEU:HA	1.90	0.42
1:D:992:GLN:O	1:D:996:VAL:HG23	2.19	0.42
1:D:1011:ARG:HD3	1:D:1011:ARG:HA	1.72	0.42
1:D:1102:TYR:N	1:D:1237:GLU:O	2.53	0.42
1:D:2066:MET:HE3	1:D:2084:MET:HG2	2.00	0.42
1:D:3234:VAL:HG22	1:D:3238:ILE:HD12	2.00	0.42
1:A:2988:ARG:N	1:A:2989:PRO:HD3	2.35	0.41
1:A:4517:LEU:HD21	1:A:4736:ASN:HB3	2.02	0.41
1:A:4625:ASP:OD1	1:A:4625:ASP:N	2.45	0.41
1:A:4825:GLY:O	1:D:4822:ARG:HD2	2.19	0.41
2:E:24:VAL:HG12	2:E:105:LEU:HD12	2.01	0.41
2:G:14:ARG:HB2	2:G:14:ARG:NH1	2.35	0.41
2:H:3:VAL:HG23	2:H:62:GLU:OE2	2.19	0.41
1:B:1016:TRP:CD1	1:B:1027:ARG:HB3	2.55	0.41
1:B:2166:GLY:HA2	1:B:2168:HIS:CE1	2.54	0.41
1:B:2427:ILE:HD13	1:B:2471:PHE:CZ	2.55	0.41
1:B:2954:PHE:HZ	1:B:2960:ILE:HD13	1.85	0.41
1:B:4567:TYR:O	1:B:4567:TYR:CD2	2.72	0.41
1:C:1008:ALA:O	1:C:1012:ILE:HG12	2.20	0.41
1:C:1016:TRP:CD1	1:C:1027:ARG:HB3	2.55	0.41
1:C:2764:SER:O	1:C:2768:LYS:HG3	2.19	0.41
1:D:1300:MET:HA	1:D:1300:MET:CE	2.50	0.41
1:D:1304:LEU:HD23	1:D:1304:LEU:HA	1.92	0.41
1:D:2119:LEU:HB2	1:D:2152:ASN:HD22	1.83	0.41
1:D:2849:HIS:CE1	1:D:2877:LEU:HD11	2.55	0.41
1:D:3213:LYS:HB2	1:D:3213:LYS:HE2	1.87	0.41
1:D:3881:VAL:O	1:D:3885:ILE:HG13	2.20	0.41
1:D:4019:MET:HA	1:D:4022:LYS:NZ	2.35	0.41
1:A:884:LYS:O	1:A:887:GLU:HG3	2.20	0.41
1:A:1102:TYR:N	1:A:1237:GLU:O	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3213:LYS:HB2	1:A:3213:LYS:HE2	1.87	0.41
2:F:36:LYS:HE3	2:F:36:LYS:HB3	1.84	0.41
1:B:2610:LEU:HD13	1:B:2644:LEU:HD21	2.03	0.41
1:B:2849:HIS:CE1	1:B:2877:LEU:HD11	2.55	0.41
1:B:3227:ARG:HB3	1:B:3230:GLN:OE1	2.19	0.41
1:B:3269:ASN:O	1:B:3272:HIS:HB2	2.19	0.41
1:B:4019:MET:HA	1:B:4022:LYS:NZ	2.35	0.41
1:C:765:SER:HA	1:C:779:PHE:O	2.20	0.41
1:C:2840:MET:O	1:C:2844:MET:HG2	2.21	0.41
1:C:2954:PHE:HZ	1:C:2960:ILE:HD13	1.85	0.41
1:C:3268:LEU:HD23	1:C:3268:LEU:HA	1.75	0.41
1:D:290:ARG:HD3	1:D:343:ARG:NH2	2.35	0.41
1:D:658:ASN:HD21	1:D:833:LYS:HG2	1.85	0.41
1:D:994:ALA:O	1:D:998:LYS:HG3	2.20	0.41
1:D:2593:VAL:HG12	1:D:2644:LEU:HD13	2.00	0.41
1:D:3212:GLU:O	1:D:3215:MET:N	2.52	0.41
1:D:3269:ASN:O	1:D:3272:HIS:HB2	2.19	0.41
1:D:3821:THR:HG22	1:D:3823:GLU:H	1.85	0.41
1:A:290:ARG:HD3	1:A:343:ARG:NH2	2.35	0.41
1:A:1140:PHE:CD2	1:A:1141:LYS:HE3	2.55	0.41
1:A:1269:GLU:HB2	1:A:1288:LYS:HG3	2.02	0.41
1:A:2472:LEU:HD12	1:A:2472:LEU:HA	1.90	0.41
1:A:2610:LEU:HD13	1:A:2644:LEU:HD21	2.03	0.41
1:A:3227:ARG:HB3	1:A:3230:GLN:OE1	2.19	0.41
1:A:3234:VAL:HG22	1:A:3238:ILE:HD12	2.00	0.41
1:A:3975:GLN:O	1:A:3979:VAL:HG23	2.21	0.41
1:A:4693:SER:O	1:A:4697:VAL:HG13	2.21	0.41
1:A:4832:GLU:O	1:A:4843:ARG:NH2	2.50	0.41
2:F:14:ARG:NH1	2:F:14:ARG:HB2	2.35	0.41
1:B:74:SER:HA	1:B:117:HIS:CD2	2.56	0.41
1:B:2347:MET:O	1:B:2351:ILE:HG12	2.19	0.41
1:B:2409:ILE:CD1	1:B:2420:ARG:HD2	2.47	0.41
1:B:2431:ASP:O	1:B:2435:VAL:HG23	2.20	0.41
1:B:3227:ARG:HH11	1:B:3228:TYR:HB3	1.84	0.41
1:B:3881:VAL:O	1:B:3885:ILE:HG13	2.20	0.41
1:C:270:HIS:CE1	1:C:491:GLU:HG3	2.54	0.41
1:C:1705:LEU:HD12	1:C:1705:LEU:HA	1.86	0.41
1:C:1894:LEU:HD23	1:C:1894:LEU:HA	1.87	0.41
1:C:3227:ARG:HH11	1:C:3228:TYR:HB3	1.84	0.41
1:C:3968:LEU:O	1:C:3972:MET:HG2	2.19	0.41
1:D:306:LEU:HA	1:D:316:LEU:HD23	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:879:GLU:OE2	1:D:882:ARG:NH2	2.49	0.41
1:D:2666:LEU:HD11	1:D:2969:PRO:HB2	2.00	0.41
1:D:3966:GLU:HG3	1:D:3970:GLU:OE2	2.20	0.41
1:A:879:GLU:OE2	1:A:882:ARG:NH2	2.48	0.41
1:A:994:ALA:O	1:A:998:LYS:HG3	2.20	0.41
1:A:2134:MET:HG2	1:A:2192:MET:HE3	2.03	0.41
1:A:2580:LEU:HD12	1:A:2580:LEU:HA	1.83	0.41
1:A:3881:VAL:O	1:A:3885:ILE:HG13	2.20	0.41
1:B:168:GLN:OE1	1:B:168:GLN:N	2.46	0.41
1:B:1269:GLU:HB2	1:B:1288:LYS:HG3	2.02	0.41
1:B:4273:LYS:HA	1:B:4273:LYS:HD2	1.80	0.41
1:B:4517:LEU:HD21	1:B:4736:ASN:HB3	2.03	0.41
1:C:336:GLU:HG3	1:C:338:LEU:HB2	2.03	0.41
1:C:630:HIS:CE1	1:C:1671:ARG:HE	2.38	0.41
1:C:1269:GLU:HB2	1:C:1288:LYS:HG3	2.02	0.41
1:C:1522:ALA:HB3	1:C:1527:LEU:HD21	2.02	0.41
1:C:2182:GLY:HA3	1:C:2185:LYS:HE3	2.02	0.41
1:C:2222:LEU:HA	1:C:2222:LEU:HD23	1.77	0.41
1:C:3006:SER:HB3	1:C:3053:VAL:HG22	2.02	0.41
1:C:3230:GLN:OE1	1:C:3230:GLN:N	2.49	0.41
1:C:3700:HIS:CE1	1:C:3702:GLU:H	2.37	0.41
1:C:4187:GLU:OE1	1:C:4949:TRP:NE1	2.43	0.41
1:D:765:SER:HA	1:D:779:PHE:O	2.20	0.41
1:D:1016:TRP:HH2	1:D:1022:GLN:HE22	1.68	0.41
1:D:1140:PHE:CD2	1:D:1141:LYS:HE3	2.55	0.41
1:D:3119:GLU:OE1	1:D:3119:GLU:N	2.43	0.41
1:D:4085:LYS:HA	1:D:4085:LYS:HD2	1.92	0.41
1:A:711:GLU:OE2	1:A:716:ASN:HB2	2.21	0.41
1:A:992:GLN:O	1:A:996:VAL:HG23	2.19	0.41
1:A:1016:TRP:CD1	1:A:1027:ARG:HB3	2.55	0.41
1:A:1426:TYR:HA	1:A:1564:MET:O	2.19	0.41
1:A:2849:HIS:CE1	1:A:2877:LEU:HD11	2.55	0.41
1:A:3006:SER:HB3	1:A:3053:VAL:HG22	2.02	0.41
1:B:306:LEU:HA	1:B:316:LEU:HD23	2.02	0.41
1:B:336:GLU:HG3	1:B:338:LEU:HB2	2.03	0.41
1:B:902:TRP:CE3	1:B:913:ARG:HD3	2.55	0.41
1:B:1012:ILE:HG22	1:B:1013:ARG:HH12	1.85	0.41
1:B:2066:MET:HE3	1:B:2084:MET:HG2	2.02	0.41
1:B:2106:TYR:OH	1:B:3615:ARG:NH1	2.52	0.41
1:C:2153:LYS:HD3	1:C:2153:LYS:HA	1.66	0.41
1:C:2431:ASP:O	1:C:2435:VAL:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2988:ARG:N	1:C:2989:PRO:HD3	2.35	0.41
1:C:4019:MET:HA	1:C:4022:LYS:NZ	2.35	0.41
1:C:4690:LYS:HE2	1:C:4690:LYS:HB3	1.87	0.41
1:D:281:ARG:NE	1:D:345:GLU:HG2	2.36	0.41
1:D:711:GLU:OE2	1:D:716:ASN:HB2	2.21	0.41
1:D:881:ILE:HD12	1:D:881:ILE:HA	1.84	0.41
1:D:884:LYS:O	1:D:887:GLU:HG3	2.20	0.41
1:D:902:TRP:CE3	1:D:913:ARG:HD3	2.55	0.41
1:D:2553:TYR:O	1:D:2556:SER:OG	2.30	0.41
1:D:3817:LEU:HD22	1:D:3819:MET:CE	2.51	0.41
1:D:3858:LEU:HD23	1:D:3858:LEU:HA	1.93	0.41
1:A:74:SER:HA	1:A:117:HIS:CD2	2.56	0.41
1:A:1008:ALA:O	1:A:1012:ILE:HG12	2.20	0.41
1:A:1300:MET:HA	1:A:1300:MET:CE	2.50	0.41
1:A:3290:ILE:O	1:A:3292:GLU:N	2.52	0.41
1:B:411:GLU:OE2	1:B:485:ARG:NE	2.42	0.41
1:B:1008:ALA:O	1:B:1012:ILE:HG12	2.20	0.41
1:B:1140:PHE:CD2	1:B:1141:LYS:HE3	2.55	0.41
1:B:2988:ARG:N	1:B:2989:PRO:HD3	2.35	0.41
1:B:3942:ASP:HA	1:B:3945:VAL:HG12	2.03	0.41
1:B:4832:GLU:O	1:B:4843:ARG:NH2	2.50	0.41
1:C:281:ARG:NE	1:C:345:GLU:HG2	2.35	0.41
1:C:711:GLU:OE2	1:C:716:ASN:HB2	2.21	0.41
1:C:1296:ASN:ND2	1:C:1300:MET:SD	2.94	0.41
1:C:3126:VAL:HA	1:C:3129:SER:OG	2.20	0.41
1:D:2082:ARG:HG3	1:D:3687:LEU:HD22	2.02	0.41
1:D:2443:PRO:HD3	1:D:2512:MET:CG	2.51	0.41
1:D:2694:SER:HA	1:D:2702:ASN:O	2.20	0.41
1:D:2988:ARG:N	1:D:2989:PRO:HD3	2.35	0.41
1:D:4517:LEU:HD21	1:D:4736:ASN:HB3	2.03	0.41
1:A:281:ARG:NE	1:A:345:GLU:HG2	2.36	0.41
1:A:718:VAL:HG23	1:A:793:SER:HB3	2.03	0.41
1:A:882:ARG:HB3	1:A:940:LEU:HD21	2.03	0.41
1:A:1012:ILE:HG22	1:A:1013:ARG:HH12	1.85	0.41
1:A:1503:ASN:HB2	1:D:2824:ARG:NH2	2.36	0.41
1:A:2764:SER:O	1:A:2768:LYS:N	2.52	0.41
1:A:2766:LYS:HA	1:A:2769:GLU:HB3	2.03	0.41
1:A:4019:MET:HA	1:A:4022:LYS:NZ	2.35	0.41
2:F:24:VAL:HG12	2:F:105:LEU:HD12	2.01	0.41
1:B:808:HIS:O	1:B:1616:GLY:HA2	2.21	0.41
1:B:884:LYS:O	1:B:887:GLU:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:994:ALA:O	1:B:998:LYS:HG3	2.20	0.41
1:B:1300:MET:CE	1:B:1300:MET:HA	2.50	0.41
1:B:2290:TRP:CZ2	1:B:2388:ILE:HG12	2.54	0.41
1:B:2840:MET:O	1:B:2844:MET:HG2	2.21	0.41
1:C:290:ARG:HD3	1:C:343:ARG:NH2	2.35	0.41
1:C:839:GLU:HB2	1:C:851:LEU:HD12	2.01	0.41
1:C:882:ARG:NH1	1:C:933:LEU:HD21	2.36	0.41
1:C:1140:PHE:CD2	1:C:1141:LYS:HE3	2.55	0.41
1:C:2886:ARG:O	1:C:2890:GLN:HG2	2.21	0.41
1:C:3109:PHE:CE2	1:C:3162:PHE:HD1	2.39	0.41
1:C:3821:THR:HG22	1:C:3823:GLU:H	1.86	0.41
1:C:4662:GLY:O	1:C:4666:ILE:HG12	2.21	0.41
1:D:194:LEU:HD12	1:D:202:HIS:O	2.21	0.41
1:D:2826:ILE:HG22	1:D:2828:MET:HG3	2.02	0.41
1:D:3126:VAL:HA	1:D:3129:SER:OG	2.20	0.41
1:A:2886:ARG:O	1:A:2890:GLN:HG2	2.21	0.41
1:A:3123:LEU:HB3	1:A:3124:GLU:OE1	2.21	0.41
1:A:3166:PHE:CE2	1:A:3168:VAL:HB	2.56	0.41
1:B:661:LEU:HD13	1:B:673:TRP:CD1	2.56	0.41
1:B:1045:SER:HA	1:B:1048:ASP:OD2	2.20	0.41
1:B:1604:LEU:HD23	1:B:1604:LEU:HA	1.90	0.41
1:B:3166:PHE:CE2	1:B:3168:VAL:HB	2.56	0.41
1:B:3821:THR:HG22	1:B:3823:GLU:H	1.85	0.41
1:B:3946:GLY:O	1:B:3950:VAL:HG23	2.20	0.41
1:C:74:SER:HA	1:C:117:HIS:CD2	2.56	0.41
1:C:194:LEU:HD12	1:C:202:HIS:O	2.21	0.41
1:C:2669:LEU:HD23	1:C:2669:LEU:HA	1.93	0.41
1:C:2828:MET:O	1:C:2894:LYS:NZ	2.44	0.41
1:C:3817:LEU:HD22	1:C:3819:MET:CE	2.51	0.41
1:D:630:HIS:CE1	1:D:1671:ARG:HE	2.38	0.41
1:D:1007:TRP:CZ2	1:D:1031:ARG:HD3	2.55	0.41
1:D:1012:ILE:HG22	1:D:1013:ARG:HH12	1.85	0.41
1:D:1894:LEU:HD23	1:D:1894:LEU:HA	1.87	0.41
1:D:1962:THR:HA	1:D:1965:PHE:HD2	1.85	0.41
1:D:2134:MET:HG2	1:D:2192:MET:HE3	2.03	0.41
1:D:2182:GLY:HA3	1:D:2185:LYS:HE3	2.02	0.41
1:D:2821:TYR:O	1:D:2823:PRO:HD3	2.20	0.41
1:D:3227:ARG:HB3	1:D:3230:GLN:OE1	2.20	0.41
1:A:1047:LYS:HG3	1:A:1051:ARG:HH22	1.86	0.41
1:A:1296:ASN:ND2	1:A:1300:MET:SD	2.94	0.41
1:A:1522:ALA:HB3	1:A:1527:LEU:HD21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2443:PRO:HD3	1:A:2512:MET:CG	2.51	0.41
1:A:2694:SER:HA	1:A:2702:ASN:O	2.20	0.41
1:A:3109:PHE:CE2	1:A:3162:PHE:HD1	2.39	0.41
1:A:3639:LYS:HA	1:A:4683:ARG:HH12	1.86	0.41
1:A:3821:THR:HG22	1:A:3823:GLU:H	1.85	0.41
1:B:194:LEU:HD12	1:B:202:HIS:O	2.21	0.41
1:B:281:ARG:NE	1:B:345:GLU:HG2	2.35	0.41
1:B:718:VAL:HG23	1:B:793:SER:HB3	2.02	0.41
1:B:765:SER:HA	1:B:779:PHE:O	2.20	0.41
1:B:882:ARG:HB3	1:B:940:LEU:HD21	2.03	0.41
1:B:1083:GLU:OE1	1:B:1254:ARG:NH1	2.54	0.41
1:B:1296:ASN:ND2	1:B:1300:MET:SD	2.94	0.41
1:B:1962:THR:HA	1:B:1965:PHE:HD2	1.85	0.41
1:B:2779:LEU:HA	1:B:2782:MET:CG	2.39	0.41
1:B:2886:ARG:O	1:B:2890:GLN:HG2	2.21	0.41
1:B:3033:LEU:HD12	1:B:3104:MET:HE3	2.02	0.41
1:B:3109:PHE:CE2	1:B:3162:PHE:HD1	2.39	0.41
1:C:200:SER:OG	1:C:202:HIS:NE2	2.54	0.41
1:C:2066:MET:HE3	1:C:2084:MET:HG2	2.02	0.41
1:C:2443:PRO:HD3	1:C:2512:MET:CG	2.51	0.41
1:C:2610:LEU:HD13	1:C:2644:LEU:HD21	2.02	0.41
1:C:2684:ASN:HD22	1:C:2913:ASP:H	1.67	0.41
1:C:2826:ILE:HG22	1:C:2828:MET:HG3	2.02	0.41
1:C:2927:GLN:HG2	1:C:2931:ARG:CZ	2.51	0.41
1:C:3123:LEU:HB3	1:C:3124:GLU:OE1	2.21	0.41
1:C:4273:LYS:HD2	1:C:4273:LYS:HA	1.80	0.41
1:C:4481:TRP:HE3	1:C:4484:ILE:HD11	1.86	0.41
1:C:4903:HIS:CG	1:D:4183:LYS:HZ2	2.39	0.41
1:C:4947:ARG:HA	1:C:4947:ARG:HD2	1.95	0.41
1:D:882:ARG:HB3	1:D:940:LEU:HD21	2.03	0.41
1:D:1016:TRP:CD1	1:D:1027:ARG:HB3	2.55	0.41
1:D:1296:ASN:ND2	1:D:1300:MET:SD	2.94	0.41
1:D:2664:LEU:HD23	1:D:2664:LEU:HA	1.86	0.41
1:D:2684:ASN:HD22	1:D:2913:ASP:H	1.67	0.41
1:D:2840:MET:O	1:D:2844:MET:HG2	2.20	0.41
1:D:2927:GLN:HG2	1:D:2931:ARG:CZ	2.51	0.41
1:D:3227:ARG:HH11	1:D:3228:TYR:HB3	1.84	0.41
1:D:3290:ILE:O	1:D:3292:GLU:N	2.52	0.41
1:D:4662:GLY:O	1:D:4666:ILE:HG12	2.21	0.41
1:D:4731:LEU:HD23	1:D:4731:LEU:HA	1.93	0.41
1:D:4832:GLU:O	1:D:4843:ARG:NH1	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:200:SER:OG	1:A:202:HIS:NE2	2.54	0.41
1:A:765:SER:HA	1:A:779:PHE:O	2.20	0.41
1:A:902:TRP:CE3	1:A:913:ARG:HD3	2.55	0.41
1:A:1894:LEU:HD23	1:A:1894:LEU:HA	1.87	0.41
1:A:1914:CYS:SG	1:A:2091:GLN:NE2	2.83	0.41
1:A:1945:ASN:O	1:A:1949:GLN:HG2	2.21	0.41
1:A:3149:GLU:OE2	1:A:3152:ARG:NH2	2.41	0.41
1:B:882:ARG:NH1	1:B:933:LEU:HD21	2.36	0.41
1:B:2929:LEU:HD21	1:B:2970:LEU:HD11	2.02	0.41
1:B:3189:SER:HA	1:B:3192:ARG:NE	2.36	0.41
1:B:4481:TRP:HE3	1:B:4484:ILE:HD11	1.86	0.41
1:C:885:LEU:HA	1:C:1060:TYR:OH	2.21	0.41
1:C:4057:HIS:CE1	1:D:4660:PHE:HZ	2.38	0.41
1:D:1969:PRO:HD3	1:D:3605:MET:HE1	2.03	0.41
1:D:2431:ASP:O	1:D:2435:VAL:HG23	2.21	0.41
1:D:2968:LEU:HB2	1:D:2969:PRO:HD3	2.03	0.41
1:A:336:GLU:HG3	1:A:338:LEU:HB2	2.03	0.40
1:A:658:ASN:HD21	1:A:833:LYS:HG2	1.85	0.40
1:A:808:HIS:O	1:A:1616:GLY:HA2	2.21	0.40
1:A:2172:MET:HE1	1:A:2217:HIS:HB3	2.02	0.40
1:A:2431:ASP:O	1:A:2435:VAL:HG23	2.20	0.40
1:A:2573:LEU:HD12	1:A:2573:LEU:HA	1.89	0.40
1:A:2830:ASN:ND2	1:B:1551:ASN:HB2	2.36	0.40
1:A:4481:TRP:HE3	1:A:4484:ILE:HD11	1.86	0.40
1:B:70:GLU:OE2	1:B:122:ARG:HD3	2.22	0.40
1:B:1016:TRP:HH2	1:B:1022:GLN:HE22	1.68	0.40
1:B:1522:ALA:HB3	1:B:1527:LEU:HD21	2.02	0.40
1:B:2689:MET:O	1:B:2691:LYS:NZ	2.47	0.40
1:B:3189:SER:O	1:B:3192:ARG:HG2	2.21	0.40
1:B:4693:SER:O	1:B:4697:VAL:HG13	2.21	0.40
1:C:808:HIS:O	1:C:1616:GLY:HA2	2.21	0.40
1:C:994:ALA:O	1:C:998:LYS:HG3	2.21	0.40
1:C:1564:MET:SD	1:C:1565:PRO:HD2	2.62	0.40
1:C:3166:PHE:CE2	1:C:3168:VAL:HB	2.56	0.40
1:D:1047:LYS:HG3	1:D:1051:ARG:HH22	1.86	0.40
1:D:3050:LEU:HD23	1:D:3051:GLU:N	2.36	0.40
1:D:3123:LEU:HB3	1:D:3124:GLU:OE1	2.21	0.40
1:D:4481:TRP:HE3	1:D:4484:ILE:HD11	1.86	0.40
1:D:4693:SER:O	1:D:4697:VAL:HG13	2.21	0.40
1:A:732:LEU:HD23	1:A:732:LEU:HA	1.88	0.40
1:A:1435:GLY:HA2	1:D:2831:VAL:HG22	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4052:MET:HG2	1:A:4052:MET:H	1.73	0.40
1:A:4860:ALA:HB3	1:D:4866:ILE:HD12	2.02	0.40
1:B:885:LEU:HA	1:B:1060:TYR:OH	2.21	0.40
1:B:2694:SER:HA	1:B:2702:ASN:O	2.20	0.40
1:B:3006:SER:HB3	1:B:3053:VAL:HG22	2.02	0.40
1:B:3270:SER:HA	1:B:3273:MET:CE	2.52	0.40
1:B:3975:GLN:O	1:B:3979:VAL:HG23	2.21	0.40
1:B:4662:GLY:O	1:B:4666:ILE:HG12	2.21	0.40
1:B:4685:LYS:HA	1:B:4685:LYS:HD3	1.81	0.40
1:C:718:VAL:HG23	1:C:793:SER:HB3	2.03	0.40
1:C:1300:MET:HA	1:C:1300:MET:CE	2.50	0.40
1:C:1748:LEU:HB3	1:C:1751:ILE:HD13	2.03	0.40
1:C:3189:SER:HA	1:C:3192:ARG:NE	2.36	0.40
1:D:1765:SER:HA	1:D:1766:PRO:HD3	1.95	0.40
1:D:2610:LEU:HD13	1:D:2644:LEU:HD21	2.02	0.40
1:D:2929:LEU:HD21	1:D:2970:LEU:HD11	2.02	0.40
1:D:3043:ARG:O	1:D:3047:LYS:HG2	2.22	0.40
1:A:194:LEU:HD12	1:A:202:HIS:O	2.21	0.40
1:A:1083:GLU:OE1	1:A:1254:ARG:NH1	2.54	0.40
1:A:1962:THR:HA	1:A:1965:PHE:HD2	1.85	0.40
1:A:2082:ARG:HG3	1:A:3687:LEU:HD22	2.02	0.40
1:A:3050:LEU:HD23	1:A:3051:GLU:N	2.36	0.40
1:A:3189:SER:HA	1:A:3192:ARG:NE	2.36	0.40
1:A:3942:ASP:HA	1:A:3945:VAL:HG12	2.03	0.40
2:E:14:ARG:NH1	2:E:14:ARG:HB2	2.35	0.40
2:H:14:ARG:NH1	2:H:14:ARG:HB2	2.35	0.40
1:B:658:ASN:HD21	1:B:833:LYS:HG2	1.85	0.40
1:B:711:GLU:OE2	1:B:716:ASN:HB2	2.21	0.40
1:B:816:PRO:HA	1:B:817:PRO:HD3	1.99	0.40
1:B:2095:ILE:HD12	1:B:2095:ILE:HA	1.96	0.40
1:B:2259:GLU:OE2	1:B:3806:ASN:ND2	2.55	0.40
1:B:2383:HIS:NE2	1:B:2457:SER:OG	2.48	0.40
1:B:2983:LEU:HD21	1:B:3115:HIS:NE2	2.37	0.40
1:B:3019:ILE:HG13	1:B:3020:SER:N	2.36	0.40
1:B:4597:LEU:HG	1:B:4601:LYS:NZ	2.37	0.40
1:C:306:LEU:HA	1:C:316:LEU:HD23	2.02	0.40
1:C:505:LEU:HD23	1:C:505:LEU:HA	1.90	0.40
1:C:732:LEU:HD23	1:C:732:LEU:HA	1.88	0.40
1:C:1041:ARG:HH12	1:C:1045:SER:HB2	1.86	0.40
1:C:2486:HIS:O	1:C:2490:VAL:HG22	2.22	0.40
1:C:3050:LEU:HD23	1:C:3051:GLU:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4517:LEU:HD21	1:C:4736:ASN:HB3	2.03	0.40
1:C:4693:SER:O	1:C:4697:VAL:HG13	2.21	0.40
1:D:200:SER:OG	1:D:202:HIS:NE2	2.54	0.40
1:D:336:GLU:HG3	1:D:338:LEU:HB2	2.03	0.40
1:D:411:GLU:OE2	1:D:485:ARG:NE	2.42	0.40
1:D:722:LEU:HD23	1:D:722:LEU:HA	1.97	0.40
1:D:820:ALA:HA	1:D:821:PRO:HD3	1.98	0.40
1:D:1083:GLU:OE1	1:D:1254:ARG:NH1	2.54	0.40
1:D:1444:GLY:HA3	1:D:1487:MET:HA	2.04	0.40
1:D:1522:ALA:HB3	1:D:1527:LEU:HD21	2.02	0.40
1:D:2573:LEU:HD12	1:D:2573:LEU:HA	1.89	0.40
1:D:2668:CYS:O	1:D:2672:VAL:HG23	2.22	0.40
1:D:2689:MET:O	1:D:2691:LYS:NZ	2.47	0.40
1:D:2764:SER:O	1:D:2768:LYS:N	2.52	0.40
1:D:4203:ALA:HA	1:D:4206:ILE:HG12	2.04	0.40
1:A:336:GLU:CG	1:A:338:LEU:HB2	2.52	0.40
1:A:541:ILE:HD12	1:A:578:VAL:HG23	2.03	0.40
1:A:606:ARG:NH2	1:A:1632:ILE:HG23	2.37	0.40
1:A:661:LEU:HD13	1:A:673:TRP:CD1	2.56	0.40
1:A:1748:LEU:HB3	1:A:1751:ILE:HD13	2.03	0.40
1:A:2668:CYS:O	1:A:2672:VAL:HG23	2.22	0.40
1:A:2840:MET:O	1:A:2844:MET:HG2	2.21	0.40
1:A:2954:PHE:HZ	1:A:2960:ILE:HD13	1.85	0.40
1:A:2983:LEU:HD21	1:A:3115:HIS:NE2	2.37	0.40
1:B:200:SER:OG	1:B:202:HIS:NE2	2.54	0.40
1:B:336:GLU:CG	1:B:338:LEU:HB2	2.52	0.40
1:B:1047:LYS:HG3	1:B:1051:ARG:HH22	1.86	0.40
1:B:1945:ASN:O	1:B:1949:GLN:HG2	2.21	0.40
1:B:2283:LYS:HB3	1:B:2283:LYS:HE2	1.81	0.40
1:B:2443:PRO:HD3	1:B:2512:MET:CG	2.51	0.40
1:B:2486:HIS:O	1:B:2490:VAL:HG22	2.21	0.40
1:B:4082:GLU:OE1	1:B:4086:ARG:NH1	2.55	0.40
1:C:336:GLU:CG	1:C:338:LEU:HB2	2.52	0.40
1:C:884:LYS:O	1:C:887:GLU:HG3	2.20	0.40
1:C:2694:SER:HA	1:C:2702:ASN:O	2.20	0.40
1:C:3879:LEU:O	1:C:3882:GLN:HG3	2.21	0.40
1:C:3881:VAL:O	1:C:3885:ILE:HG13	2.20	0.40
1:C:3975:GLN:O	1:C:3979:VAL:HG23	2.21	0.40
1:D:336:GLU:CG	1:D:338:LEU:HB2	2.52	0.40
1:D:735:GLY:O	1:D:737:ILE:HD12	2.22	0.40
1:D:885:LEU:HA	1:D:1060:TYR:OH	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1282:CYS:SG	1:D:1556:GLU:HG3	2.61	0.40
1:D:3879:LEU:O	1:D:3882:GLN:HG3	2.22	0.40
1:D:3975:GLN:O	1:D:3979:VAL:HG23	2.21	0.40
1:A:168:GLN:OE1	1:A:168:GLN:N	2.46	0.40
1:A:2222:LEU:HA	1:A:2222:LEU:HD23	1.77	0.40
1:A:3019:ILE:HG13	1:A:3020:SER:N	2.37	0.40
1:A:3043:ARG:O	1:A:3047:LYS:HG2	2.22	0.40
1:A:4203:ALA:HA	1:A:4206:ILE:HG12	2.04	0.40
1:A:4251:ASN:O	1:A:4254:THR:OG1	2.32	0.40
1:B:2082:ARG:HG3	1:B:3687:LEU:HD22	2.02	0.40
1:B:2172:MET:HE1	1:B:2217:HIS:HB3	2.03	0.40
1:B:2968:LEU:HB2	1:B:2969:PRO:HD3	2.03	0.40
1:B:4947:ARG:HA	1:B:4947:ARG:HD2	1.95	0.40
1:C:1282:CYS:SG	1:C:1556:GLU:HG3	2.62	0.40
1:C:2585:MET:O	1:C:2589:LEU:HG	2.22	0.40
1:C:2763:LEU:HD12	1:C:2767:GLU:HB3	2.04	0.40
1:C:2778:SER:O	1:C:2781:THR:HB	2.22	0.40
1:C:2984:SER:HB2	1:C:2989:PRO:HD2	2.04	0.40
1:C:3270:SER:HA	1:C:3273:MET:CE	2.52	0.40
1:C:3946:GLY:O	1:C:3950:VAL:HG23	2.20	0.40
1:D:74:SER:HA	1:D:117:HIS:CD2	2.56	0.40
1:D:808:HIS:O	1:D:1616:GLY:HA2	2.21	0.40
1:D:1732:GLU:H	1:D:1732:GLU:CD	2.25	0.40
1:D:1945:ASN:O	1:D:1949:GLN:HG2	2.21	0.40
1:D:2763:LEU:HD12	1:D:2767:GLU:HB3	2.04	0.40
1:D:2778:SER:O	1:D:2781:THR:HB	2.22	0.40
1:D:3019:ILE:HG13	1:D:3020:SER:N	2.37	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	4198/4967 (84%)	4098 (98%)	98 (2%)	2 (0%)	100	100
1	B	4198/4967 (84%)	4099 (98%)	97 (2%)	2 (0%)	100	100
1	C	4198/4967 (84%)	4100 (98%)	96 (2%)	2 (0%)	100	100
1	D	4198/4967 (84%)	4099 (98%)	97 (2%)	2 (0%)	100	100
2	E	105/108 (97%)	105 (100%)	0	0	100	100
2	F	105/108 (97%)	105 (100%)	0	0	100	100
2	G	105/108 (97%)	105 (100%)	0	0	100	100
2	H	105/108 (97%)	105 (100%)	0	0	100	100
All	All	17212/20300 (85%)	16816 (98%)	388 (2%)	8 (0%)	100	100

All (8) Ramachandran outliers are listed below:

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

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	3708/4358 (85%)	3653 (98%)	55 (2%)	65	84
1	B	3708/4358 (85%)	3653 (98%)	55 (2%)	65	84
1	C	3708/4358 (85%)	3653 (98%)	55 (2%)	65	84
1	D	3708/4358 (85%)	3653 (98%)	55 (2%)	65	84
2	E	88/89 (99%)	86 (98%)	2 (2%)	50	75
2	F	88/89 (99%)	86 (98%)	2 (2%)	50	75

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	G	88/89 (99%)	86 (98%)	2 (2%)	50	75
2	H	88/89 (99%)	86 (98%)	2 (2%)	50	75
All	All	15184/17788 (85%)	14956 (98%)	228 (2%)	66	84

All (228) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	81	MET
1	A	338	LEU
1	A	393	MET
1	A	399	MET
1	A	845	THR
1	A	880	ARG
1	A	893	TRP
1	A	926	GLU
1	A	927	GLN
1	A	929	ARG
1	A	931	TYR
1	A	932	ASN
1	A	935	MET
1	A	943	LEU
1	A	962	LYS
1	A	1006	VAL
1	A	1011	ARG
1	A	1013	ARG
1	A	1014	GLN
1	A	1024	VAL
1	A	1025	LYS
1	A	1031	ARG
1	A	1032	LEU
1	A	1041	ARG
1	A	1044	LYS
1	A	1045	SER
1	A	1047	LYS
1	A	1049	SER
1	A	1050	LEU
1	A	1165	MET
1	A	1300	MET
1	A	1477	HIS
1	A	1720	MET
1	A	1729	MET

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Mol	Chain	Res	Type
1	A	1960	ARG
1	A	2150	MET
1	A	2192	MET
1	A	2303	ARG
1	A	2512	MET
1	A	2660	GLU
1	A	2763	LEU
1	A	2779	LEU
1	A	2793	ARG
1	A	2835	ARG
1	A	2931	ARG
1	A	2950	LYS
1	A	3033	LEU
1	A	3215	MET
1	A	3227	ARG
1	A	3981	MET
1	A	3985	MET
1	A	4270	LYS
1	A	4292	MET
1	A	4567	TYR
1	A	4654	MET
2	E	4	GLU
2	E	45	LYS
2	F	4	GLU
2	F	45	LYS
2	G	4	GLU
2	G	45	LYS
2	H	4	GLU
2	H	45	LYS
1	B	81	MET
1	B	338	LEU
1	B	393	MET
1	B	399	MET
1	B	845	THR
1	B	880	ARG
1	B	893	TRP
1	B	926	GLU
1	B	927	GLN
1	B	929	ARG
1	B	931	TYR
1	B	932	ASN
1	B	935	MET

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Mol	Chain	Res	Type
1	B	943	LEU
1	B	962	LYS
1	B	1006	VAL
1	B	1011	ARG
1	B	1013	ARG
1	B	1014	GLN
1	B	1024	VAL
1	B	1025	LYS
1	B	1031	ARG
1	B	1032	LEU
1	B	1041	ARG
1	B	1044	LYS
1	B	1045	SER
1	B	1047	LYS
1	B	1049	SER
1	B	1050	LEU
1	B	1165	MET
1	B	1300	MET
1	B	1477	HIS
1	B	1720	MET
1	B	1729	MET
1	B	1960	ARG
1	B	2150	MET
1	B	2192	MET
1	B	2303	ARG
1	B	2512	MET
1	B	2660	GLU
1	B	2763	LEU
1	B	2779	LEU
1	B	2793	ARG
1	B	2835	ARG
1	B	2931	ARG
1	B	2950	LYS
1	B	3033	LEU
1	B	3215	MET
1	B	3227	ARG
1	B	3981	MET
1	B	3985	MET
1	B	4270	LYS
1	B	4292	MET
1	B	4567	TYR
1	B	4654	MET

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Mol	Chain	Res	Type
1	C	81	MET
1	C	338	LEU
1	C	393	MET
1	C	399	MET
1	C	845	THR
1	C	880	ARG
1	C	893	TRP
1	C	926	GLU
1	C	927	GLN
1	C	929	ARG
1	C	931	TYR
1	C	932	ASN
1	C	935	MET
1	C	943	LEU
1	C	962	LYS
1	C	1006	VAL
1	C	1011	ARG
1	C	1013	ARG
1	C	1014	GLN
1	C	1024	VAL
1	C	1025	LYS
1	C	1031	ARG
1	C	1032	LEU
1	C	1041	ARG
1	C	1044	LYS
1	C	1045	SER
1	C	1047	LYS
1	C	1049	SER
1	C	1050	LEU
1	C	1165	MET
1	C	1300	MET
1	C	1477	HIS
1	C	1720	MET
1	C	1729	MET
1	C	1960	ARG
1	C	2150	MET
1	C	2192	MET
1	C	2303	ARG
1	C	2512	MET
1	C	2660	GLU
1	C	2763	LEU
1	C	2779	LEU

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Mol	Chain	Res	Type
1	C	2793	ARG
1	C	2835	ARG
1	C	2931	ARG
1	C	2950	LYS
1	C	3033	LEU
1	C	3215	MET
1	C	3227	ARG
1	C	3981	MET
1	C	3985	MET
1	C	4270	LYS
1	C	4292	MET
1	C	4567	TYR
1	C	4654	MET
1	D	81	MET
1	D	338	LEU
1	D	393	MET
1	D	399	MET
1	D	845	THR
1	D	880	ARG
1	D	893	TRP
1	D	926	GLU
1	D	927	GLN
1	D	929	ARG
1	D	931	TYR
1	D	932	ASN
1	D	935	MET
1	D	943	LEU
1	D	962	LYS
1	D	1006	VAL
1	D	1011	ARG
1	D	1013	ARG
1	D	1014	GLN
1	D	1024	VAL
1	D	1025	LYS
1	D	1031	ARG
1	D	1032	LEU
1	D	1041	ARG
1	D	1044	LYS
1	D	1045	SER
1	D	1047	LYS
1	D	1049	SER
1	D	1050	LEU

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Mol	Chain	Res	Type
1	D	1165	MET
1	D	1300	MET
1	D	1477	HIS
1	D	1720	MET
1	D	1729	MET
1	D	1960	ARG
1	D	2150	MET
1	D	2192	MET
1	D	2303	ARG
1	D	2512	MET
1	D	2660	GLU
1	D	2763	LEU
1	D	2779	LEU
1	D	2793	ARG
1	D	2835	ARG
1	D	2931	ARG
1	D	2950	LYS
1	D	3033	LEU
1	D	3215	MET
1	D	3227	ARG
1	D	3981	MET
1	D	3985	MET
1	D	4270	LYS
1	D	4292	MET
1	D	4567	TYR
1	D	4654	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (36) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	117	HIS
1	A	658	ASN
1	A	896	ASN
1	A	932	ASN
1	A	1014	GLN
1	A	2684	ASN
1	A	2938	GLN
1	A	3831	GLN
1	B	117	HIS
1	B	658	ASN
1	B	896	ASN
1	B	932	ASN

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Mol	Chain	Res	Type
1	B	1014	GLN
1	B	2684	ASN
1	B	2938	GLN
1	B	3831	GLN
1	C	117	HIS
1	C	658	ASN
1	C	896	ASN
1	C	915	HIS
1	C	932	ASN
1	C	1014	GLN
1	C	2684	ASN
1	C	2830	ASN
1	C	2938	GLN
1	C	3831	GLN
1	D	117	HIS
1	D	398	HIS
1	D	658	ASN
1	D	896	ASN
1	D	915	HIS
1	D	932	ASN
1	D	1014	GLN
1	D	2684	ASN
1	D	2938	GLN
1	D	3831	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 monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 16 ligands modelled in this entry, 4 are monoatomic - leaving 12 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	KVR	A	5004	-	24,25,25	0.50	0	32,34,34	1.00	2 (6%)
4	ATP	A	5002	-	26,33,33	0.60	0	31,52,52	0.76	2 (6%)
4	ATP	C	5002	-	26,33,33	0.60	0	31,52,52	0.76	2 (6%)
5	KVR	D	5004	-	24,25,25	0.50	0	32,34,34	1.00	2 (6%)
5	KVR	C	5004	-	24,25,25	0.50	0	32,34,34	1.00	2 (6%)
4	ATP	D	5002	-	26,33,33	0.60	0	31,52,52	0.76	2 (6%)
4	ATP	A	5003	-	26,33,33	0.66	0	31,52,52	0.76	1 (3%)
4	ATP	B	5002	-	26,33,33	0.60	0	31,52,52	0.76	2 (6%)
5	KVR	B	5004	-	24,25,25	0.50	0	32,34,34	1.00	2 (6%)
4	ATP	C	5003	-	26,33,33	0.67	0	31,52,52	0.76	1 (3%)
4	ATP	B	5003	-	26,33,33	0.67	0	31,52,52	0.76	1 (3%)
4	ATP	D	5003	-	26,33,33	0.67	0	31,52,52	0.76	1 (3%)

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	KVR	A	5004	-	-	6/10/20/20	0/2/3/3
4	ATP	A	5002	-	-	8/18/38/38	0/3/3/3
4	ATP	C	5002	-	-	8/18/38/38	0/3/3/3
5	KVR	D	5004	-	-	6/10/20/20	0/2/3/3
5	KVR	C	5004	-	-	6/10/20/20	0/2/3/3
4	ATP	D	5002	-	-	8/18/38/38	0/3/3/3
4	ATP	A	5003	-	-	5/18/38/38	0/3/3/3
4	ATP	B	5002	-	-	8/18/38/38	0/3/3/3
5	KVR	B	5004	-	-	6/10/20/20	0/2/3/3
4	ATP	C	5003	-	-	5/18/38/38	0/3/3/3
4	ATP	B	5003	-	-	5/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	ATP	D	5003	-	-	5/18/38/38	0/3/3/3

There are no bond length outliers.

All (20) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	D	5004	KVR	C10-S09-C06	3.36	107.46	102.71
5	C	5004	KVR	C10-S09-C06	3.34	107.44	102.71
5	A	5004	KVR	C10-S09-C06	3.34	107.44	102.71
5	B	5004	KVR	C10-S09-C06	3.33	107.42	102.71
5	D	5004	KVR	C14-N12-C11	3.02	115.95	111.06
5	B	5004	KVR	C14-N12-C11	3.02	115.95	111.06
5	A	5004	KVR	C14-N12-C11	3.00	115.92	111.06
5	C	5004	KVR	C14-N12-C11	2.98	115.89	111.06
4	C	5002	ATP	C5-C6-N6	2.35	123.92	120.35
4	D	5002	ATP	C5-C6-N6	2.34	123.92	120.35
4	A	5002	ATP	C5-C6-N6	2.33	123.89	120.35
4	B	5002	ATP	C5-C6-N6	2.32	123.88	120.35
4	D	5003	ATP	C5-C6-N6	2.27	123.80	120.35
4	B	5003	ATP	C5-C6-N6	2.26	123.78	120.35
4	A	5003	ATP	C5-C6-N6	2.25	123.77	120.35
4	C	5003	ATP	C5-C6-N6	2.24	123.76	120.35
4	C	5002	ATP	PB-O3B-PG	2.07	139.91	132.83
4	D	5002	ATP	PB-O3B-PG	2.06	139.89	132.83
4	A	5002	ATP	PB-O3B-PG	2.05	139.87	132.83
4	B	5002	ATP	PB-O3B-PG	2.05	139.86	132.83

There are no chirality outliers.

All (76) torsion outliers are listed below:

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

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Mol	Chain	Res	Type	Atoms
4	C	5003	ATP	C5'-O5'-PA-O3A
4	C	5003	ATP	C4'-C5'-O5'-PA
4	D	5002	ATP	PB-O3B-PG-O3G
4	D	5002	ATP	C5'-O5'-PA-O1A
4	D	5003	ATP	C5'-O5'-PA-O3A
4	D	5003	ATP	C4'-C5'-O5'-PA
5	A	5004	KVR	C15-C14-N12-C11
5	A	5004	KVR	C15-C14-N12-C13
5	B	5004	KVR	C15-C14-N12-C11
5	B	5004	KVR	C15-C14-N12-C13
5	C	5004	KVR	C15-C14-N12-C11
5	C	5004	KVR	C15-C14-N12-C13
5	D	5004	KVR	C15-C14-N12-C11
5	D	5004	KVR	C15-C14-N12-C13
5	A	5004	KVR	C17-C18-C21-O22
5	A	5004	KVR	C19-C18-C21-O22
5	B	5004	KVR	C17-C18-C21-O22
5	B	5004	KVR	C19-C18-C21-O22
5	C	5004	KVR	C17-C18-C21-O22
5	C	5004	KVR	C19-C18-C21-O22
5	D	5004	KVR	C17-C18-C21-O22
5	D	5004	KVR	C19-C18-C21-O22
5	D	5004	KVR	C19-C18-C21-O23
5	A	5004	KVR	C19-C18-C21-O23
5	B	5004	KVR	C19-C18-C21-O23
5	C	5004	KVR	C19-C18-C21-O23
5	C	5004	KVR	C17-C18-C21-O23
5	A	5004	KVR	C17-C18-C21-O23
5	B	5004	KVR	C17-C18-C21-O23
5	D	5004	KVR	C17-C18-C21-O23
4	A	5002	ATP	O4'-C4'-C5'-O5'
4	A	5003	ATP	O4'-C4'-C5'-O5'
4	A	5003	ATP	C3'-C4'-C5'-O5'
4	B	5002	ATP	O4'-C4'-C5'-O5'
4	B	5003	ATP	O4'-C4'-C5'-O5'
4	B	5003	ATP	C3'-C4'-C5'-O5'
4	C	5002	ATP	O4'-C4'-C5'-O5'
4	C	5003	ATP	O4'-C4'-C5'-O5'
4	C	5003	ATP	C3'-C4'-C5'-O5'
4	D	5002	ATP	O4'-C4'-C5'-O5'
4	D	5003	ATP	O4'-C4'-C5'-O5'
4	D	5003	ATP	C3'-C4'-C5'-O5'

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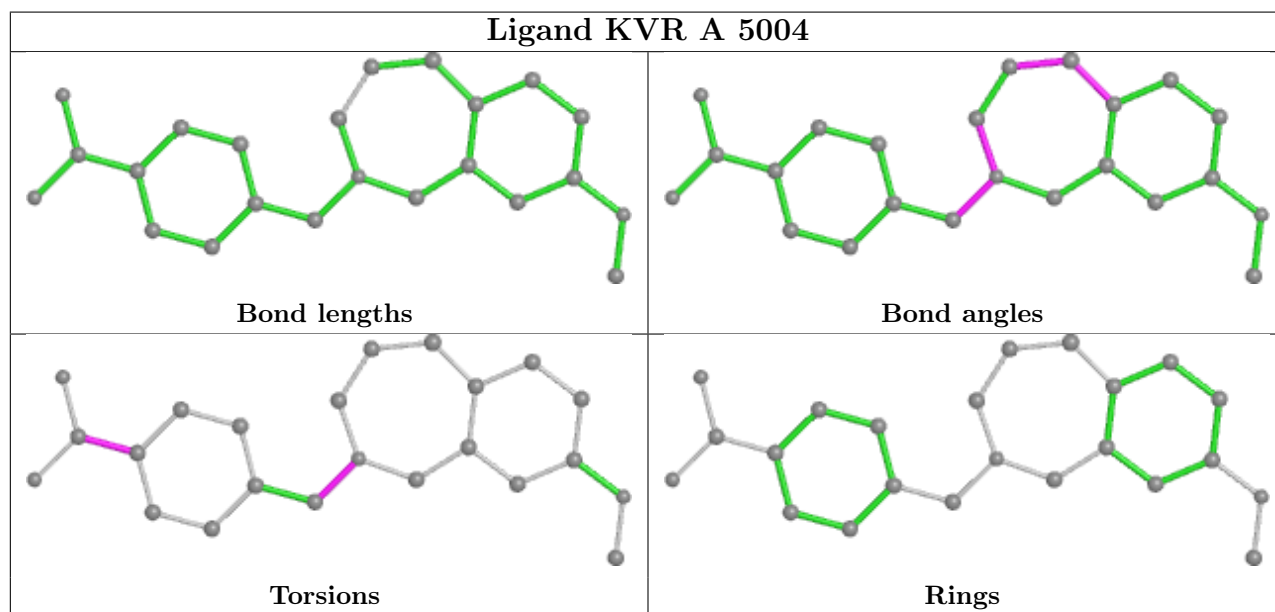
Mol	Chain	Res	Type	Atoms
4	A	5002	ATP	C3'-C4'-C5'-O5'
4	B	5002	ATP	C3'-C4'-C5'-O5'
4	D	5002	ATP	C3'-C4'-C5'-O5'
4	C	5002	ATP	C3'-C4'-C5'-O5'
4	A	5002	ATP	PA-O3A-PB-O3B
4	B	5002	ATP	PA-O3A-PB-O3B
4	C	5002	ATP	PA-O3A-PB-O3B
4	D	5002	ATP	PA-O3A-PB-O3B
4	A	5002	ATP	C5'-O5'-PA-O3A
4	B	5002	ATP	C5'-O5'-PA-O3A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

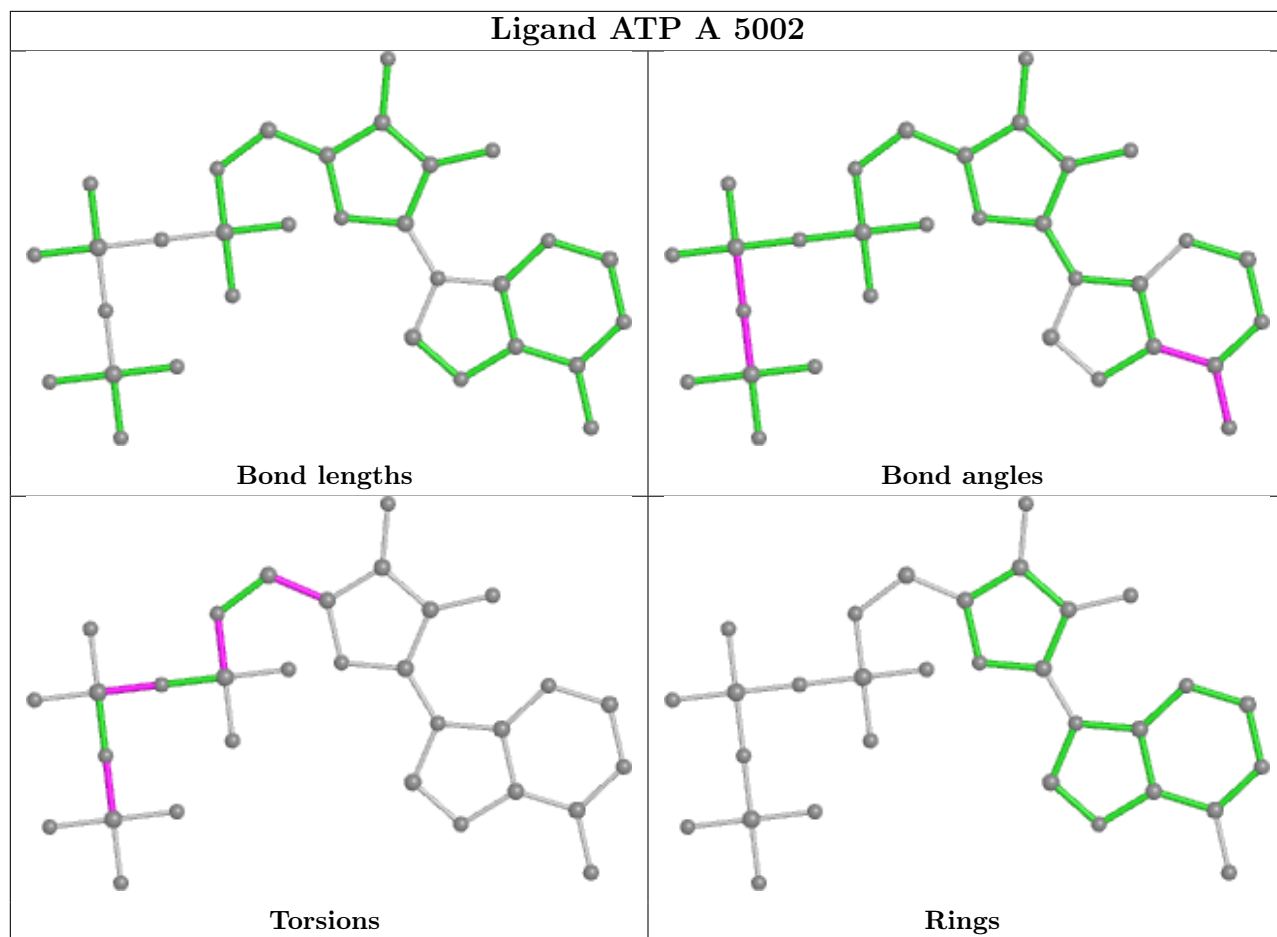
There are no ring outliers.

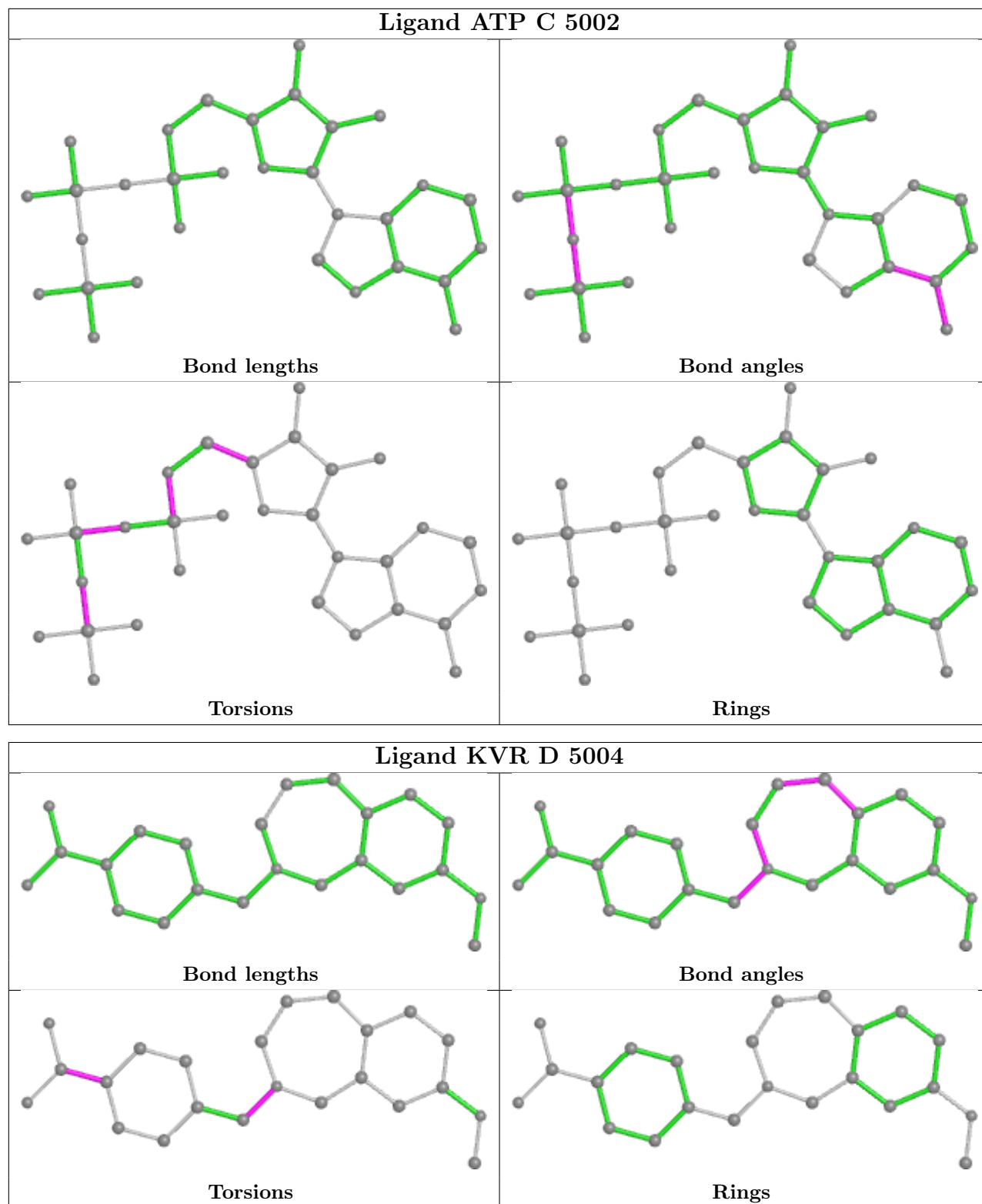
12 monomers are involved in 12 short contacts:

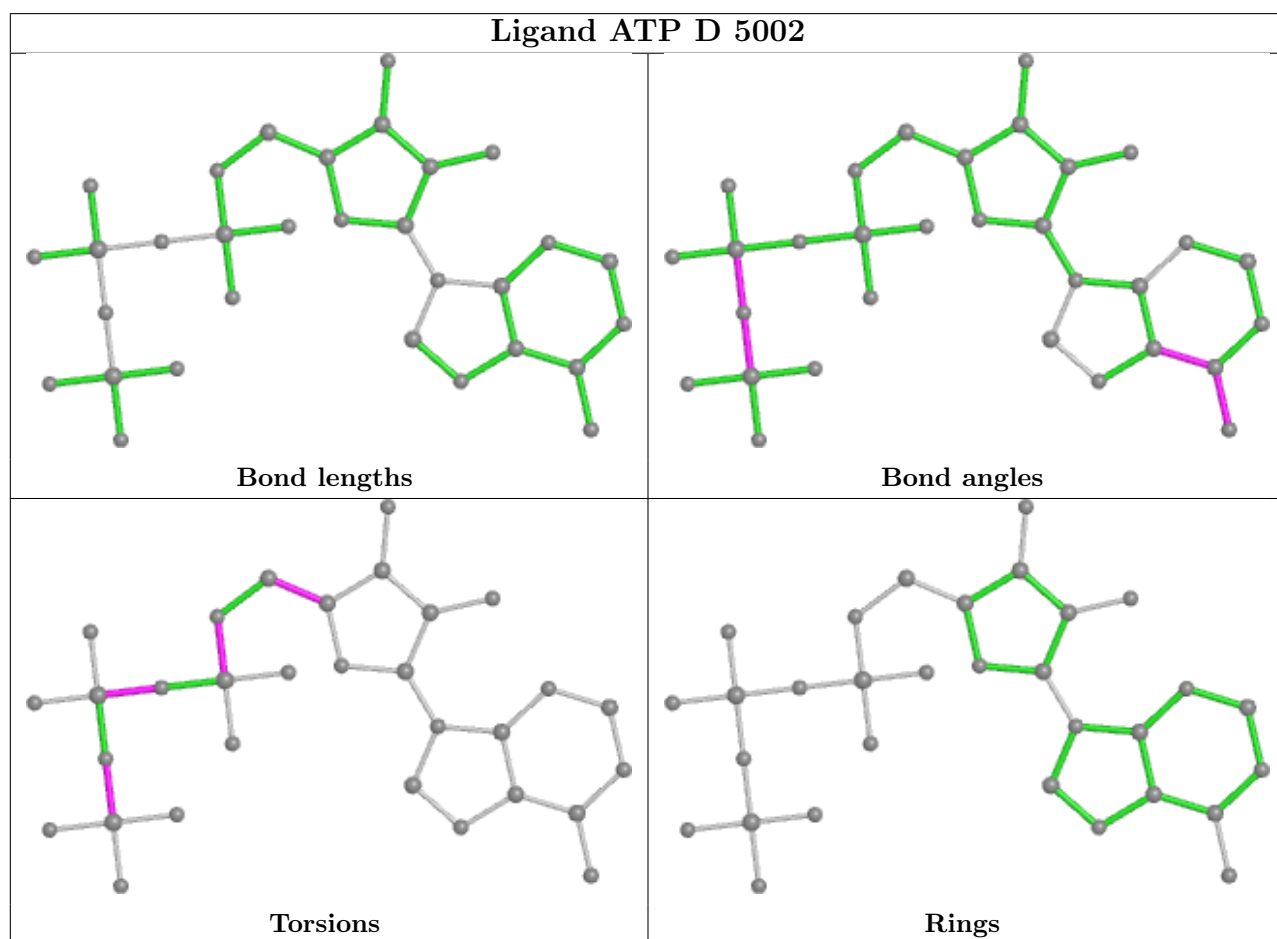
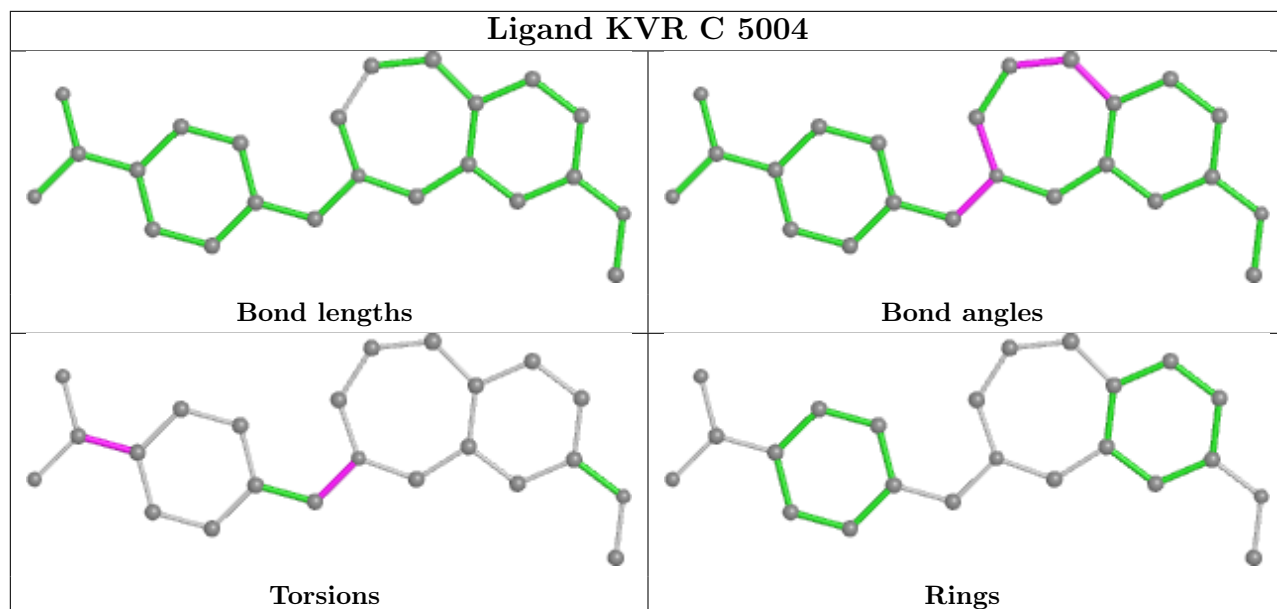
Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	A	5004	KVR	1	0
4	A	5002	ATP	1	0
4	C	5002	ATP	1	0
5	D	5004	KVR	1	0
5	C	5004	KVR	1	0
4	D	5002	ATP	1	0
4	A	5003	ATP	1	0
4	B	5002	ATP	1	0
5	B	5004	KVR	1	0
4	C	5003	ATP	1	0
4	B	5003	ATP	1	0
4	D	5003	ATP	1	0

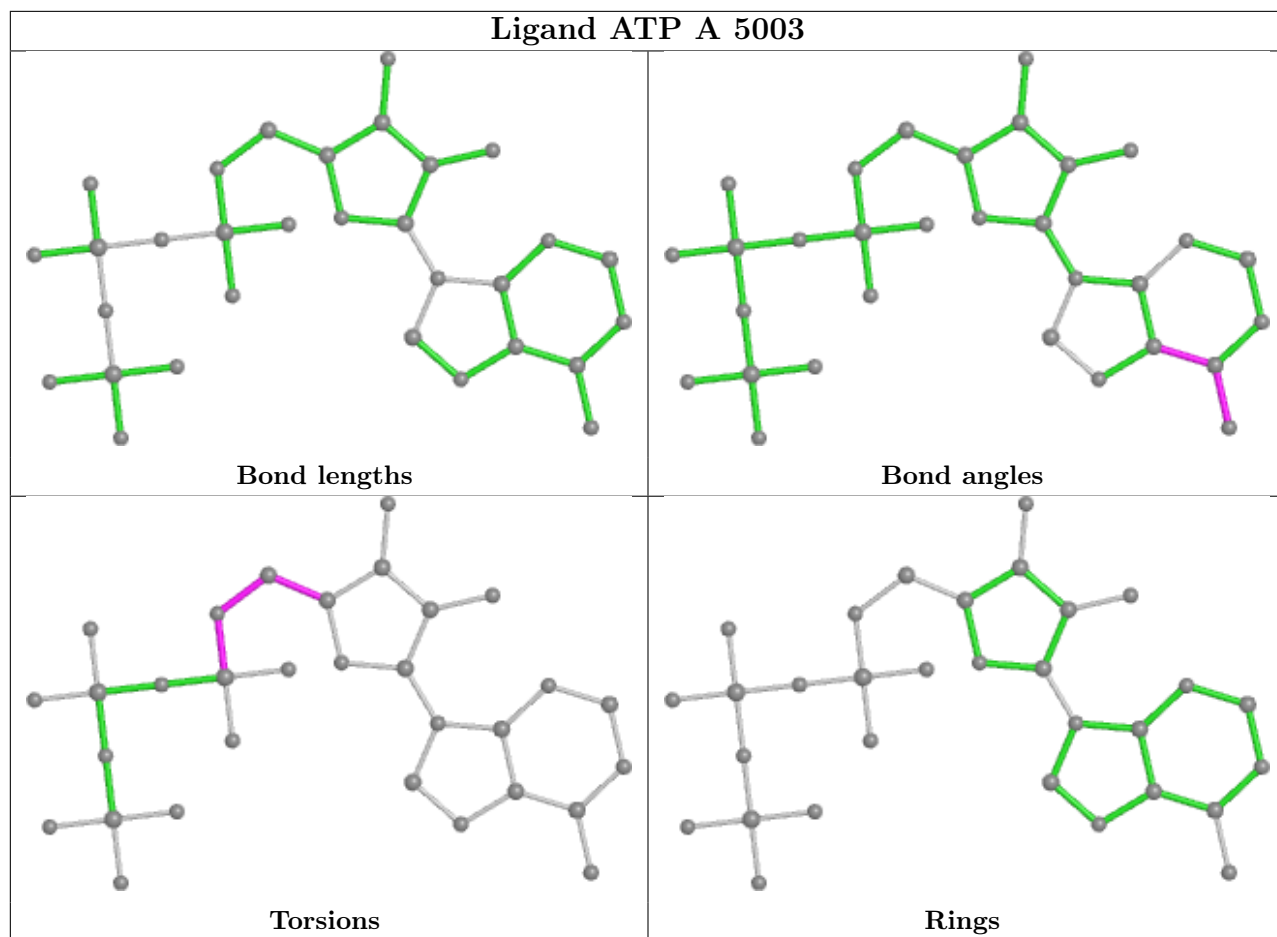
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

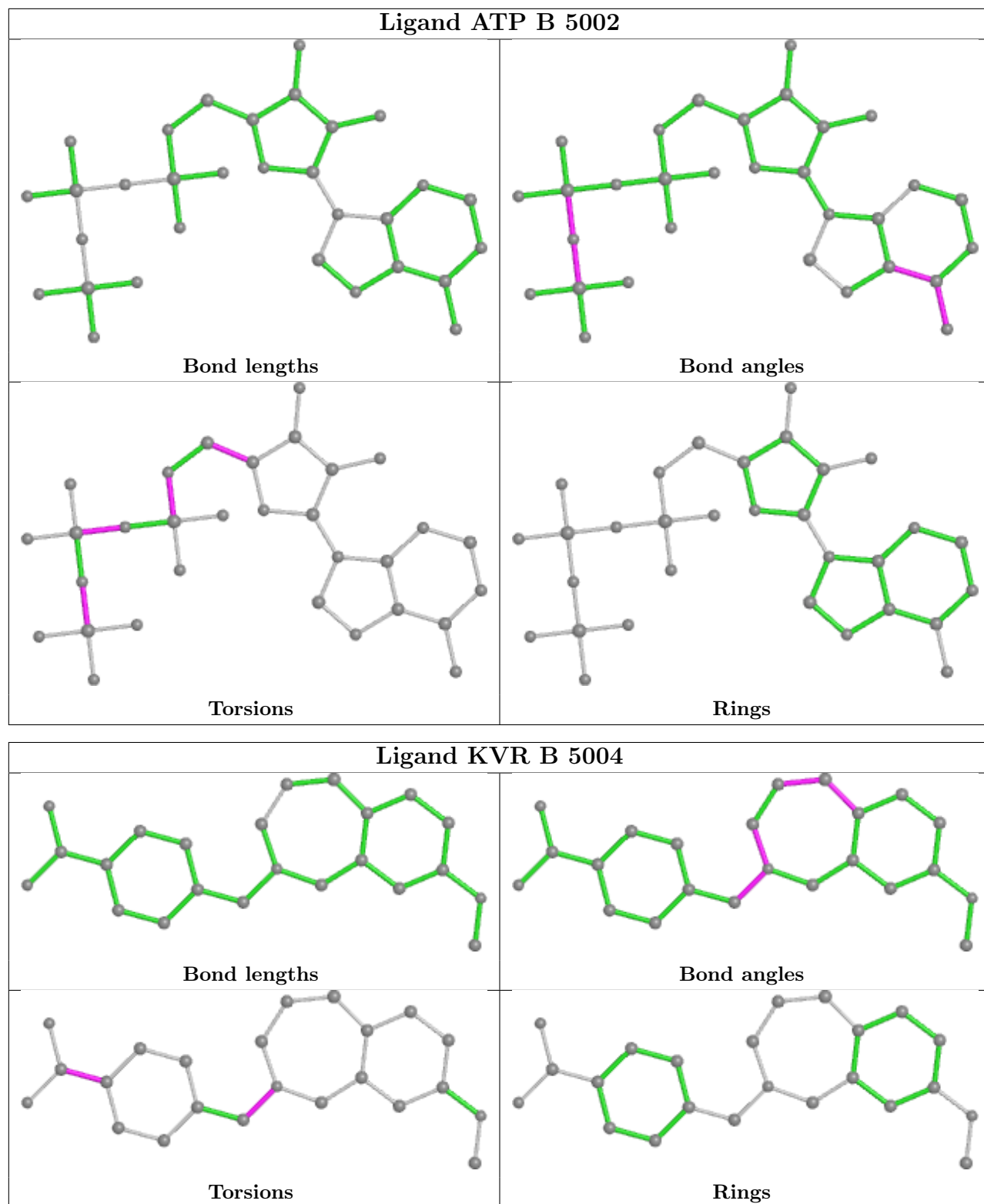


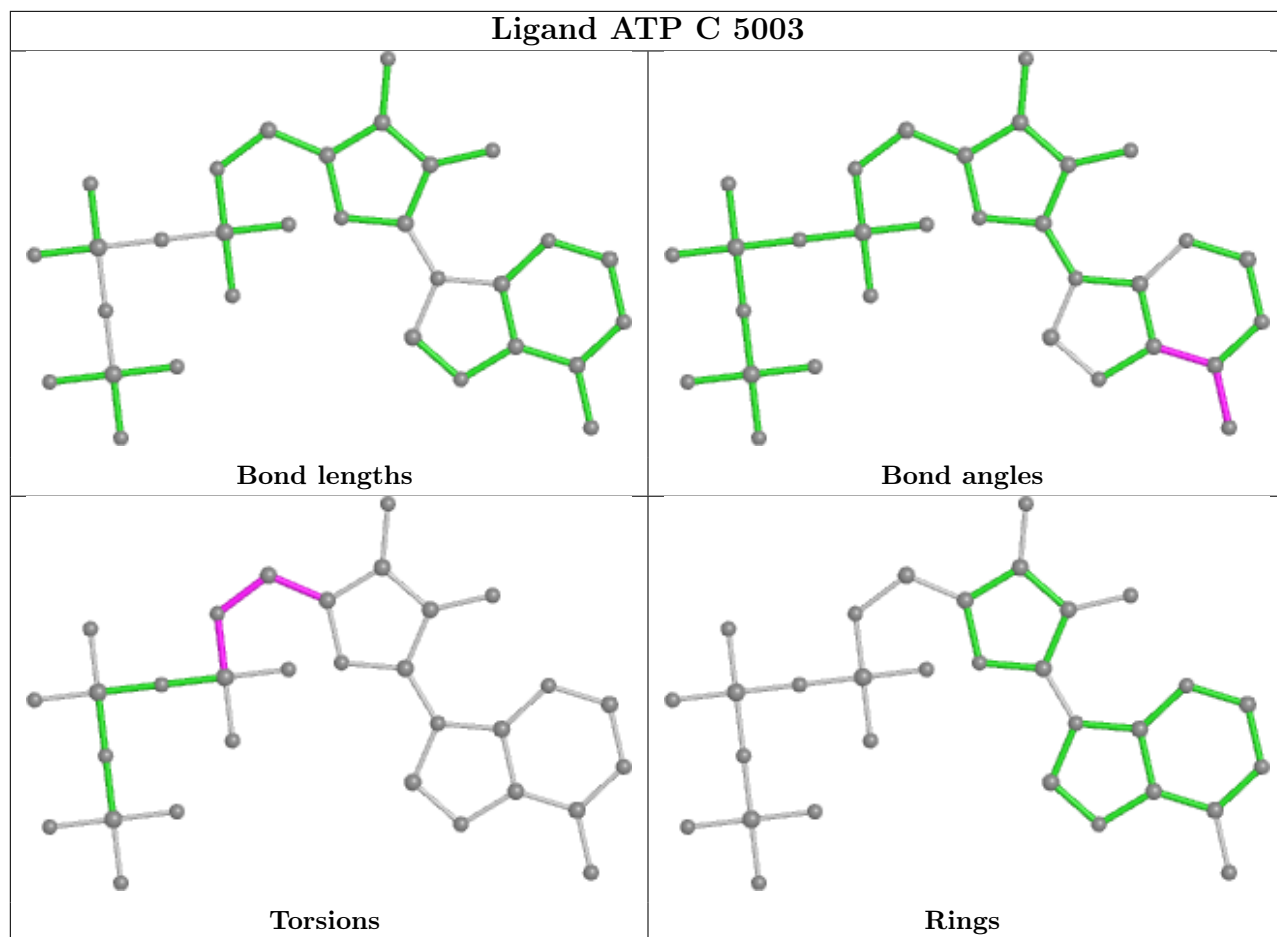


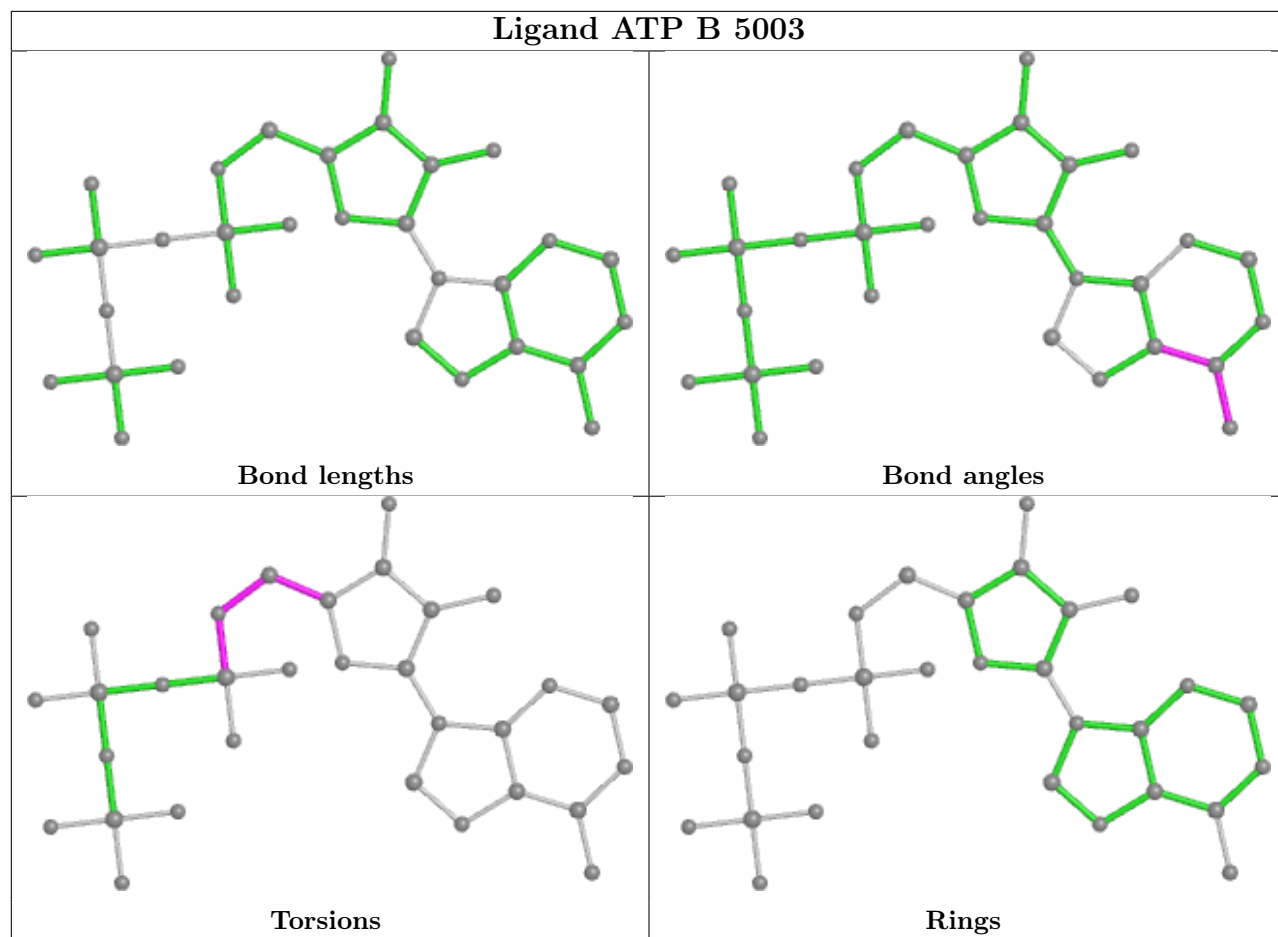


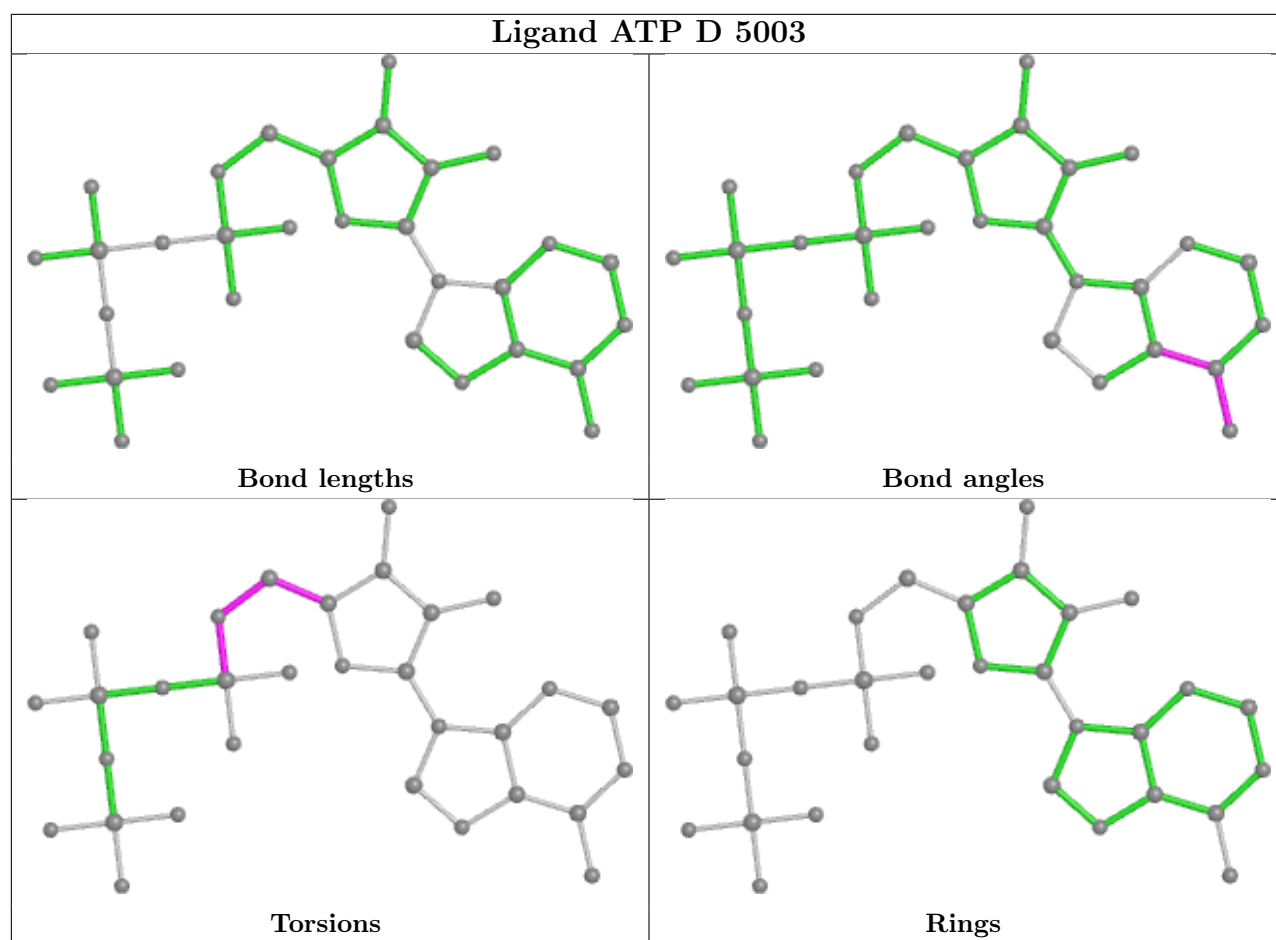












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

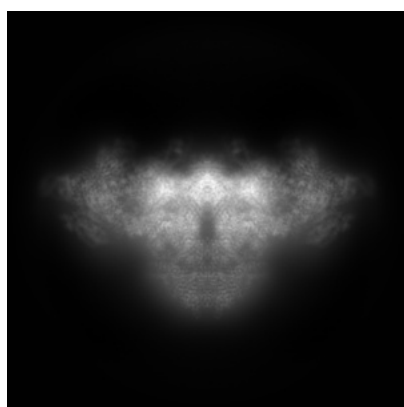
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-42763. These allow visual inspection of the internal detail of the map and identification of artifacts.

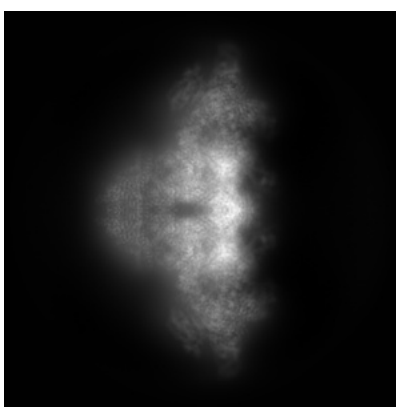
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

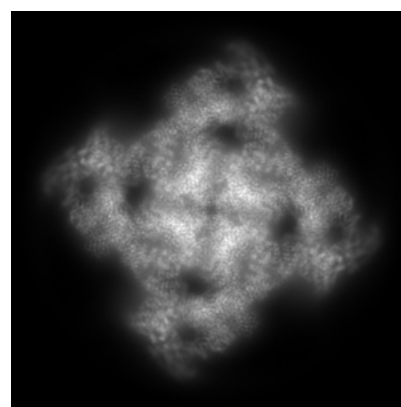
6.1.1 Primary map



X



Y



Z

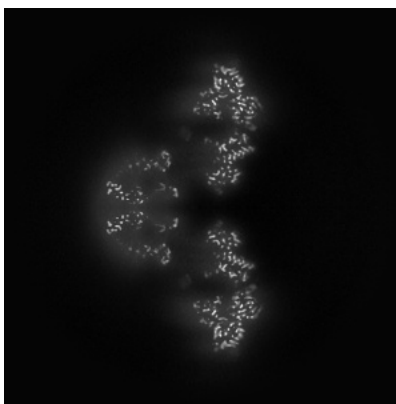
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

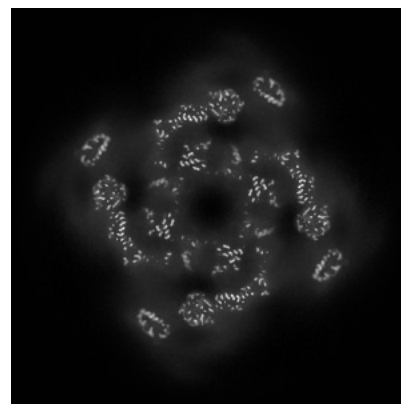
6.2.1 Primary map



X Index: 256



Y Index: 256

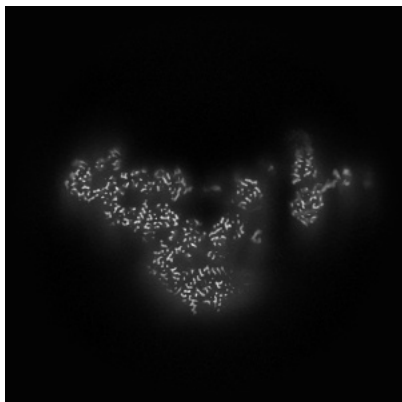


Z Index: 256

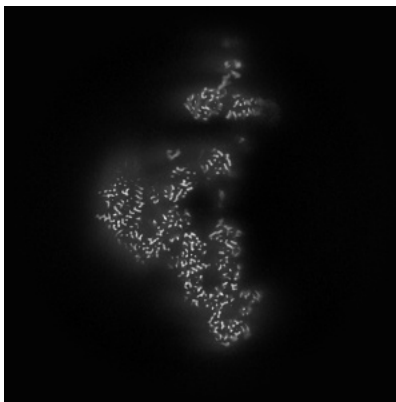
The images above show central slices of the map in three orthogonal directions.

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

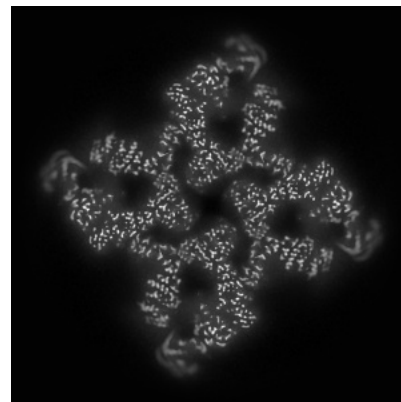
6.3.1 Primary map



X Index: 274



Y Index: 238

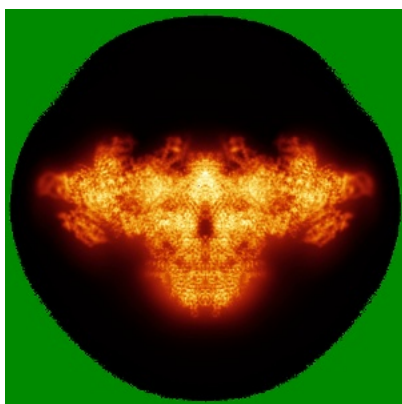


Z Index: 282

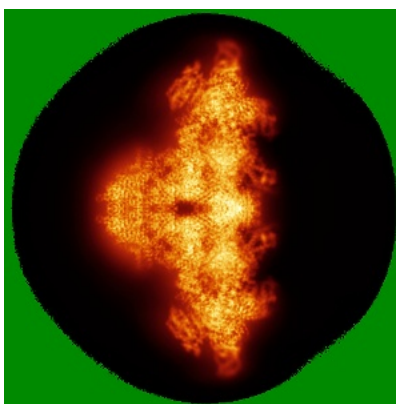
The images above show the largest variance slices of the map in three orthogonal directions.

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

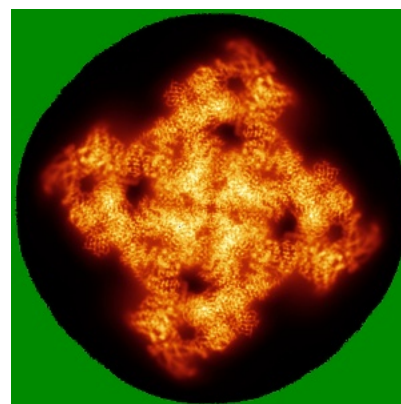
6.4.1 Primary map



X



Y

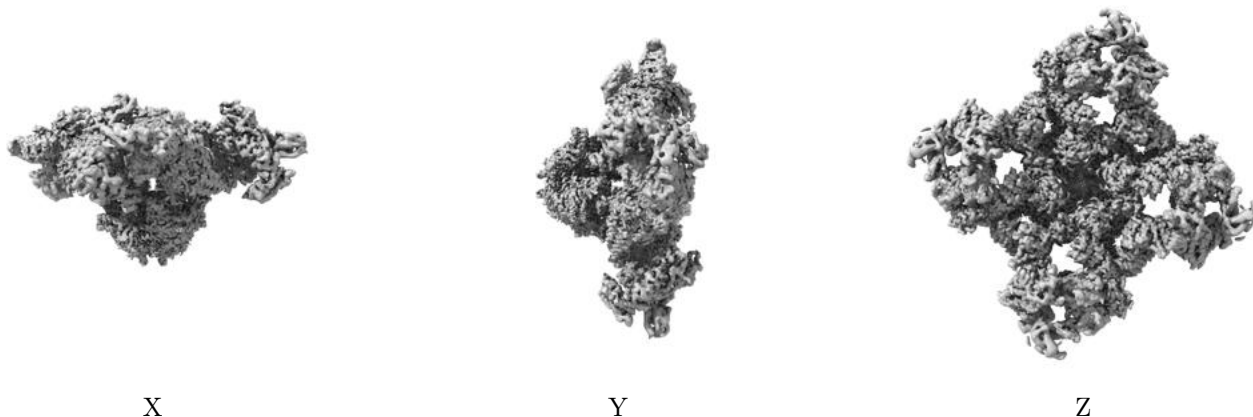


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



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

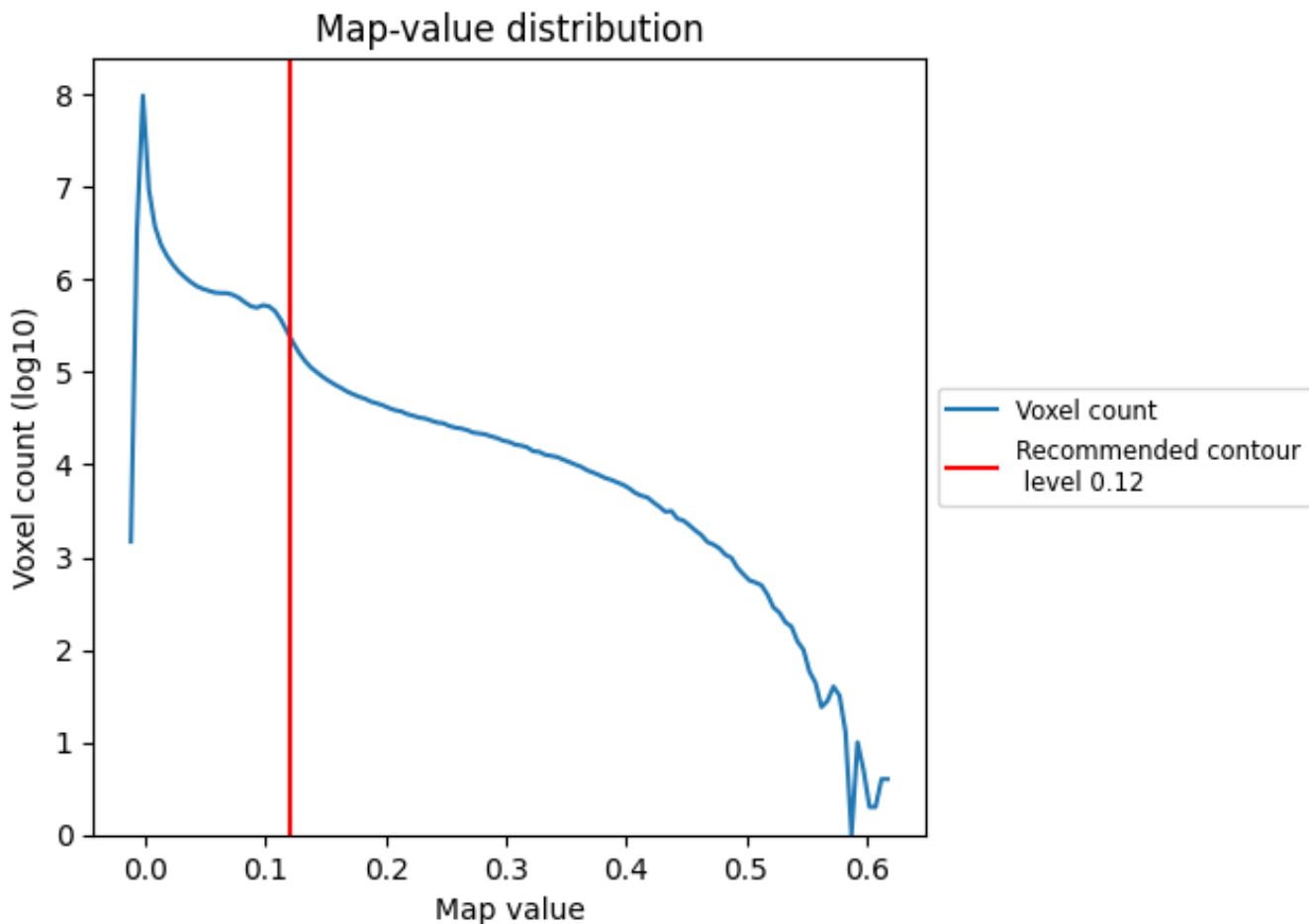
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

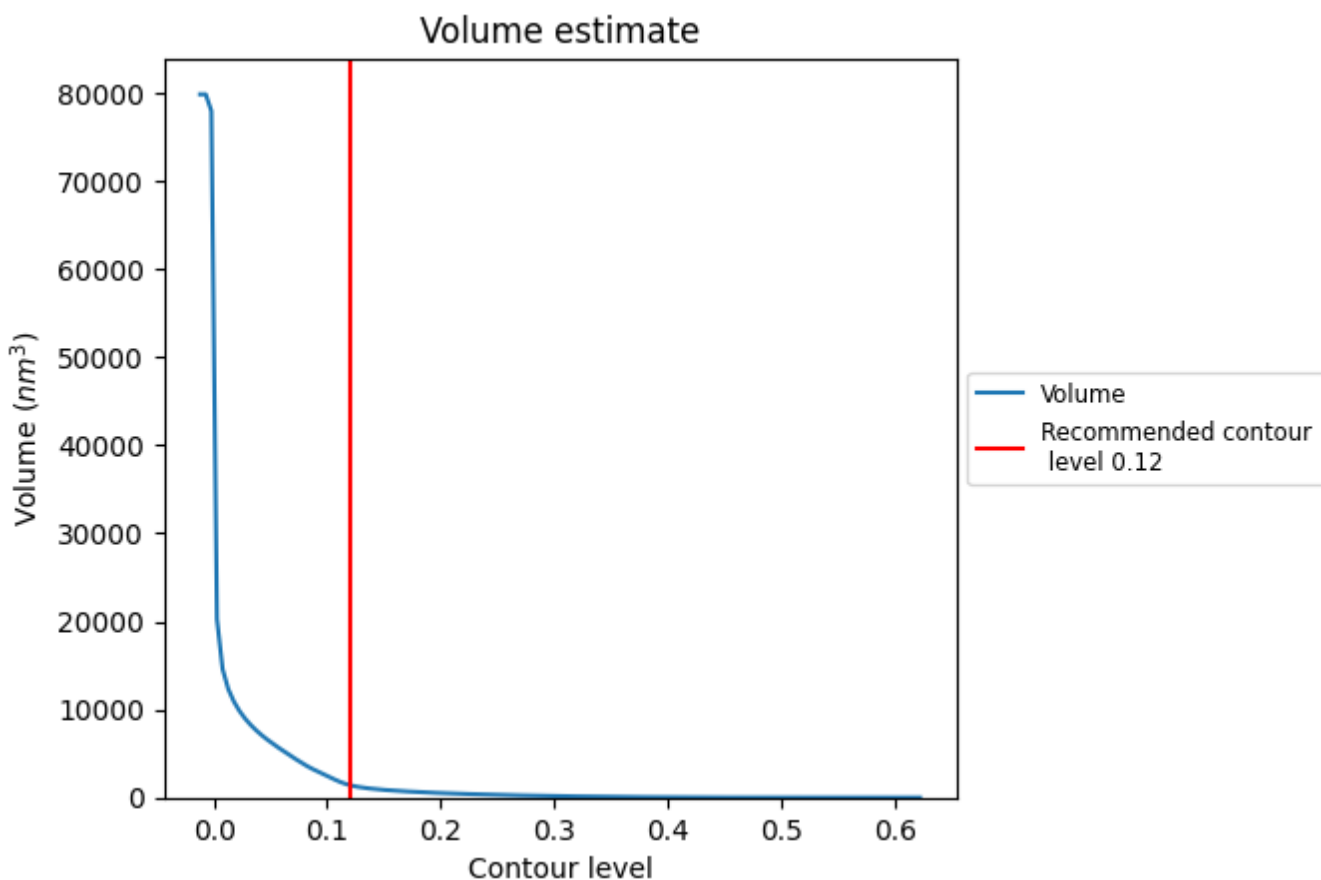
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

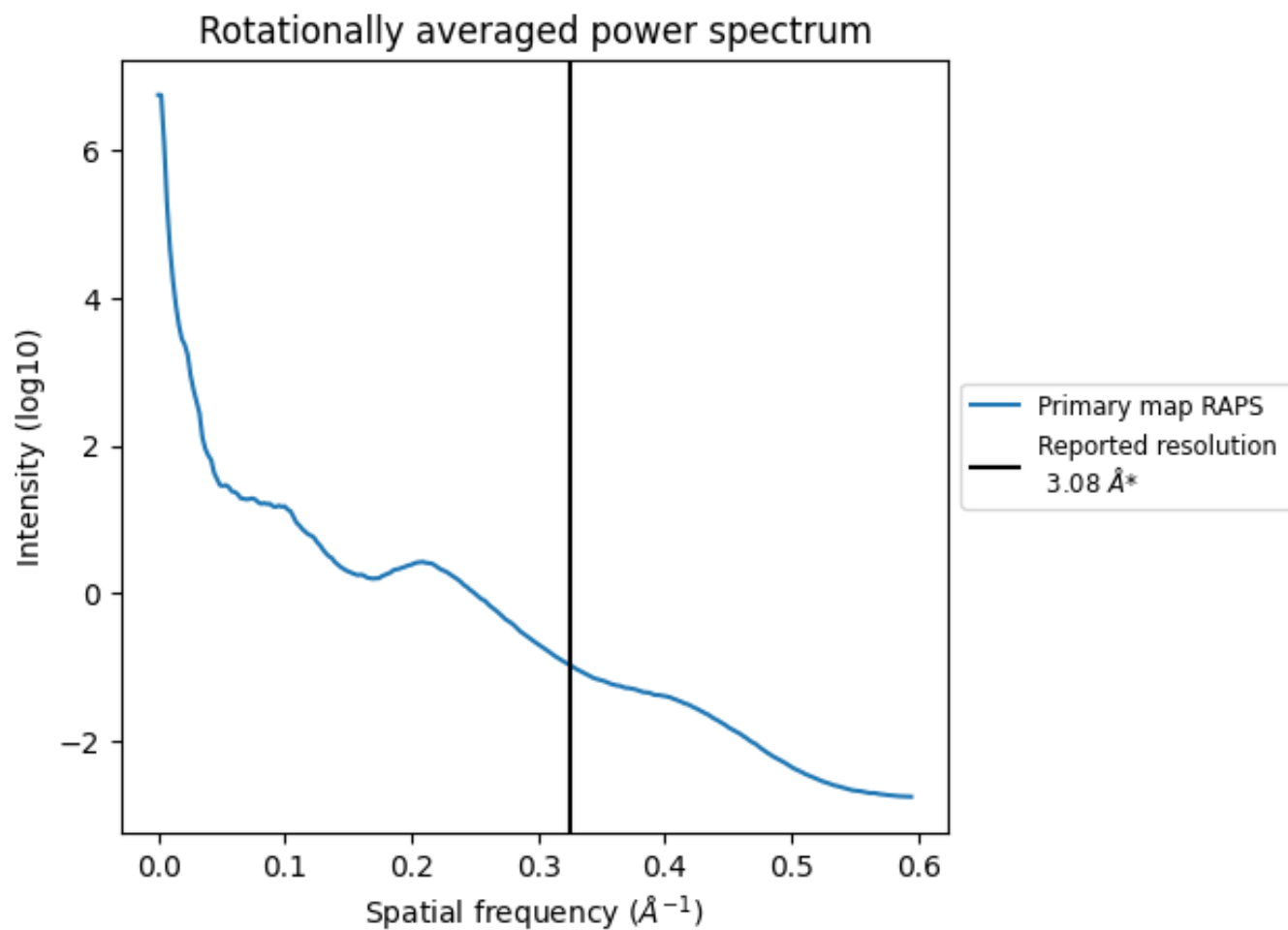
7.2 Volume estimate [\(i\)](#)



The volume at the recommended contour level is 1416 nm^3 ; this corresponds to an approximate mass of 1279 kDa.

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

7.3 Rotationally averaged power spectrum [i](#)



*Reported resolution corresponds to spatial frequency of 0.325 Å⁻¹

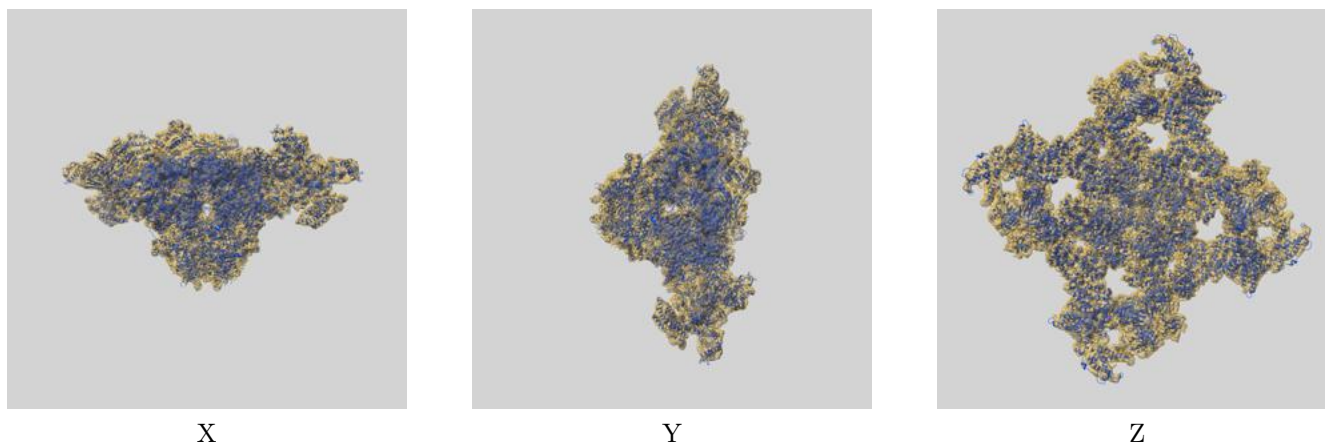
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

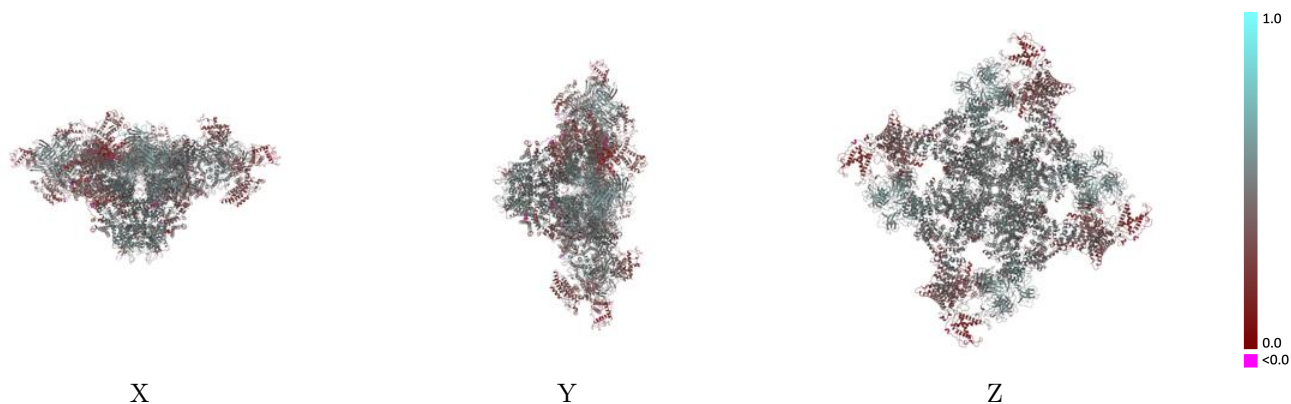
This section contains information regarding the fit between EMDB map EMD-42763 and PDB model 8UXG. Per-residue inclusion information can be found in section [3](#) on page [6](#).

9.1 Map-model overlay [i](#)



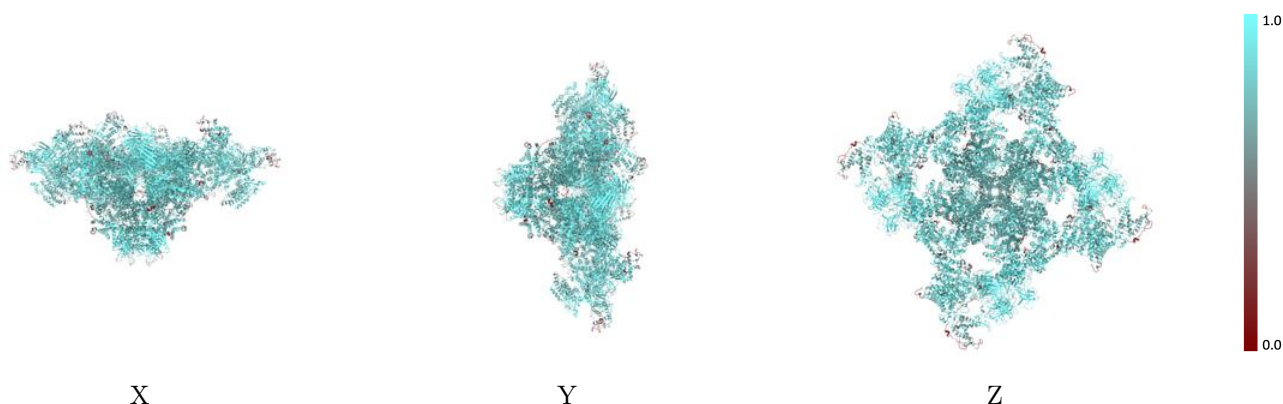
The images above show the 3D surface view of the map at the recommended contour level 0.12 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



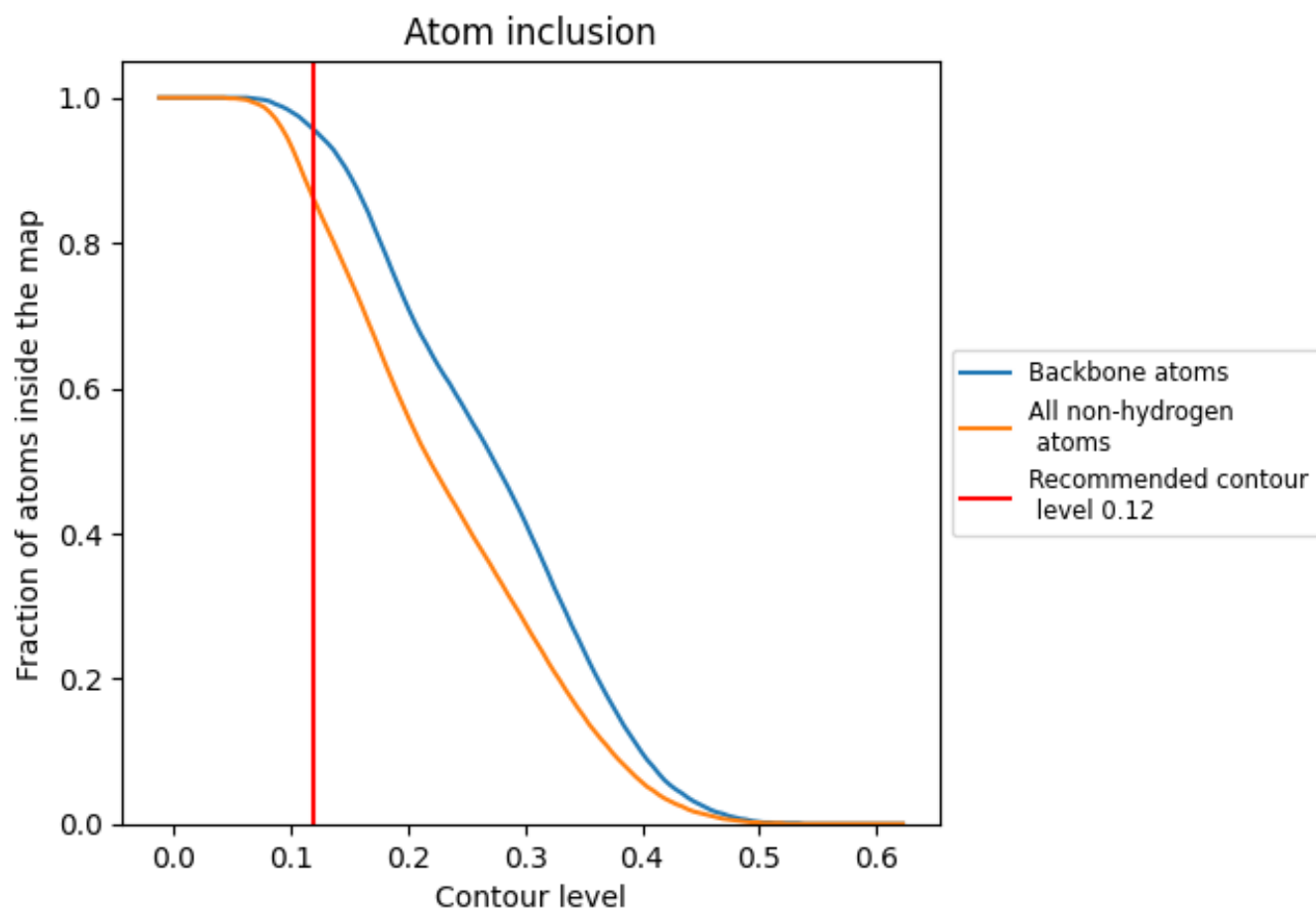
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.12).



















9.4 Atom inclusion [i](#)



At the recommended contour level, 96% of all backbone atoms, 86% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

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

Chain	Atom inclusion	Q-score
All	 0.8590	 0.4340
A	 0.8580	 0.4310
B	 0.8580	 0.4300
C	 0.8590	 0.4340
D	 0.8560	 0.4300
E	 0.9330	 0.5340
F	 0.9290	 0.5330
G	 0.9340	 0.5350
H	 0.9340	 0.5360

