



Full wwPDB EM Validation Report ⓘ

Mar 11, 2024 – 01:18 AM EDT

PDB ID : 6PV6
EMDB ID : EMD-20486
Title : Functional Pathways of Biomolecules Retrieved from Single-particle Snapshots
Authors : Dashti, A.; des Georges, A.; Frank, J.; Ourmazd, A.
Deposited on : 2019-07-19
Resolution : 4.50 Å (reported)
Based on initial model : 5TB4

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
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36

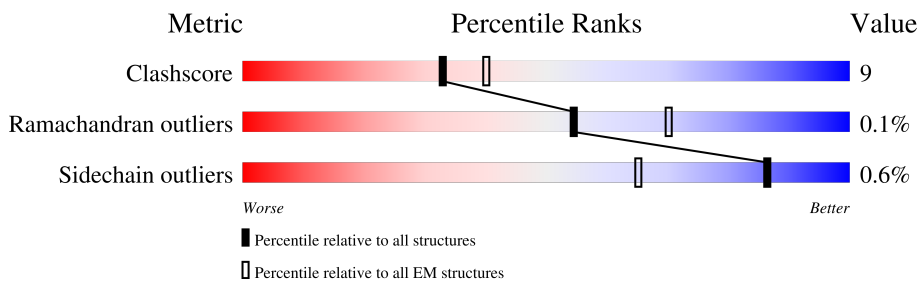
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.50 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	B	4687	
1	E	4687	
1	G	4687	
1	I	4687	
2	A	108	
2	F	108	
2	H	108	
2	J	108	

2 Entry composition [i](#)

There are 4 unique types of molecules in this entry. The entry contains 120756 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	B	4168	29369	18608	5202	5402	157	0	0
1	E	4168	29369	18608	5202	5402	157	0	0
1	I	4168	29369	18608	5202	5402	157	0	0
1	G	4168	29369	18608	5202	5402	157	0	0

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

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

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

Mol	Chain	Residues	Atoms		AltConf
3	B	1	Total	Zn	0
			1	1	
3	E	1	Total	Zn	0
			1	1	
3	I	1	Total	Zn	0
			1	1	
3	G	1	Total	Zn	0
			1	1	

- Molecule 4 is CALCIUM ION (three-letter code: CA) (formula: Ca) (labeled as "Ligand of

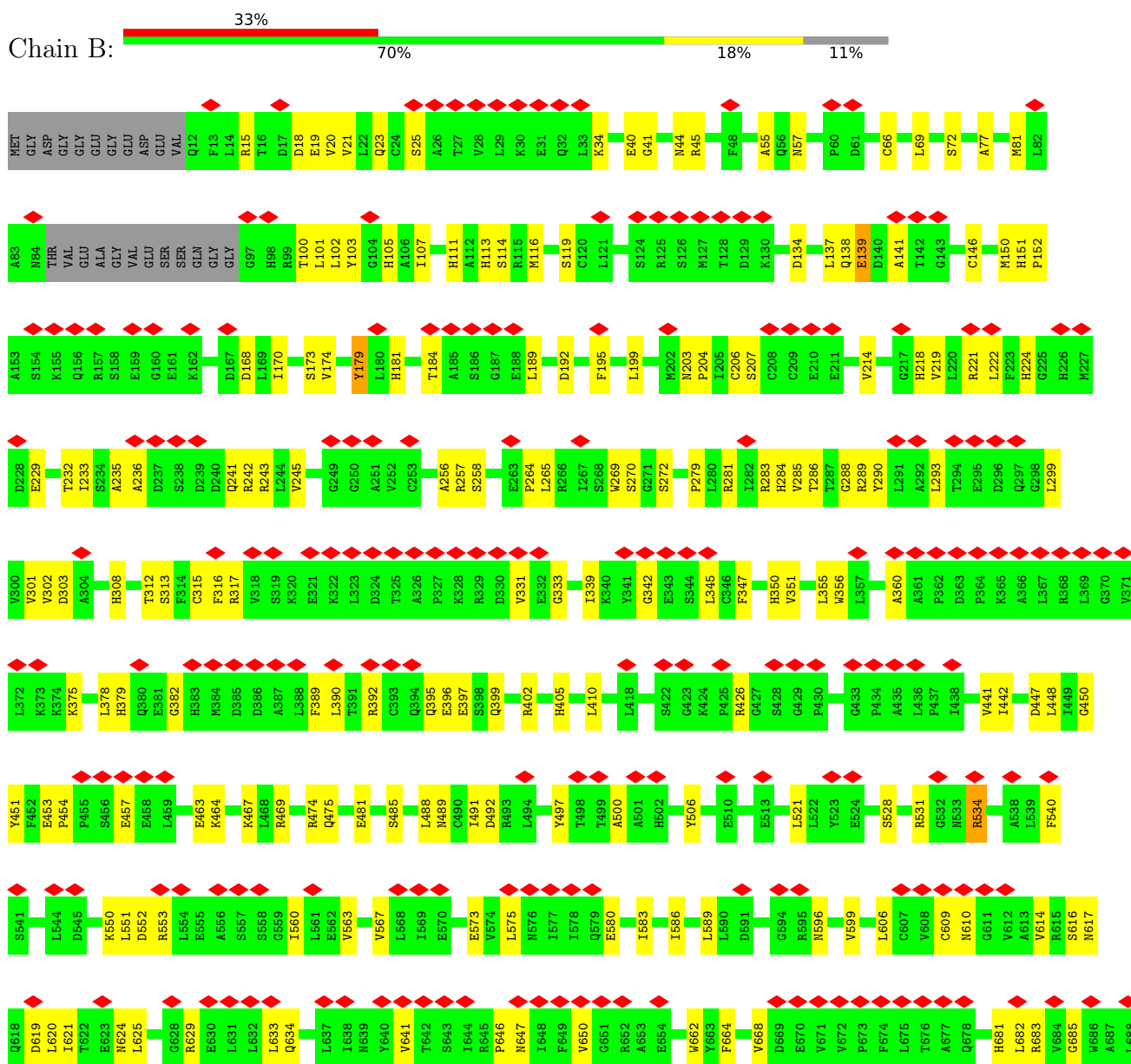
Interest" by depositor).

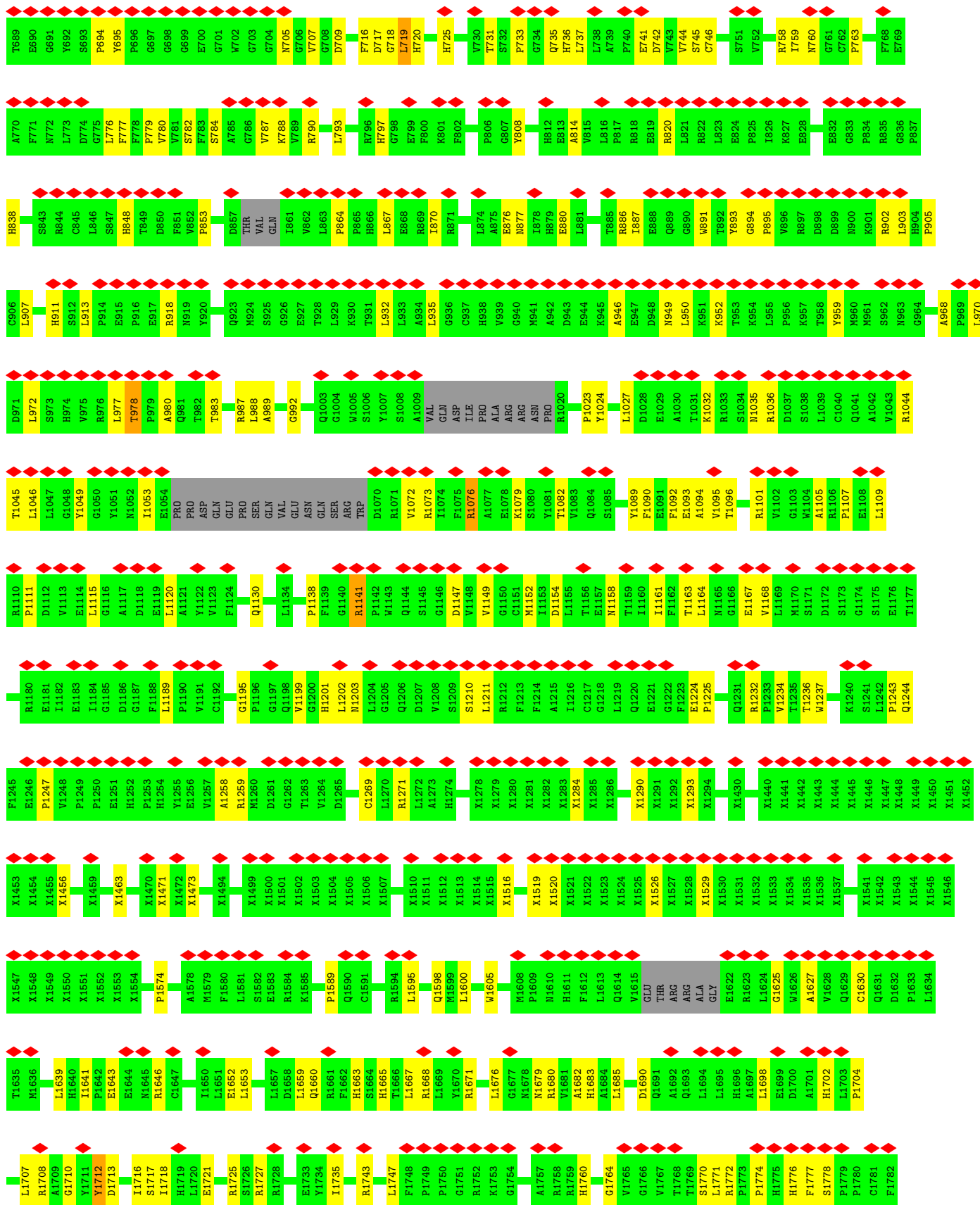
Mol	Chain	Residues	Atoms		AltConf
4	B	1	Total 1	Ca 1	0
4	E	1	Total 1	Ca 1	0
4	I	1	Total 1	Ca 1	0
4	G	1	Total 1	Ca 1	0

3 Residue-property plots

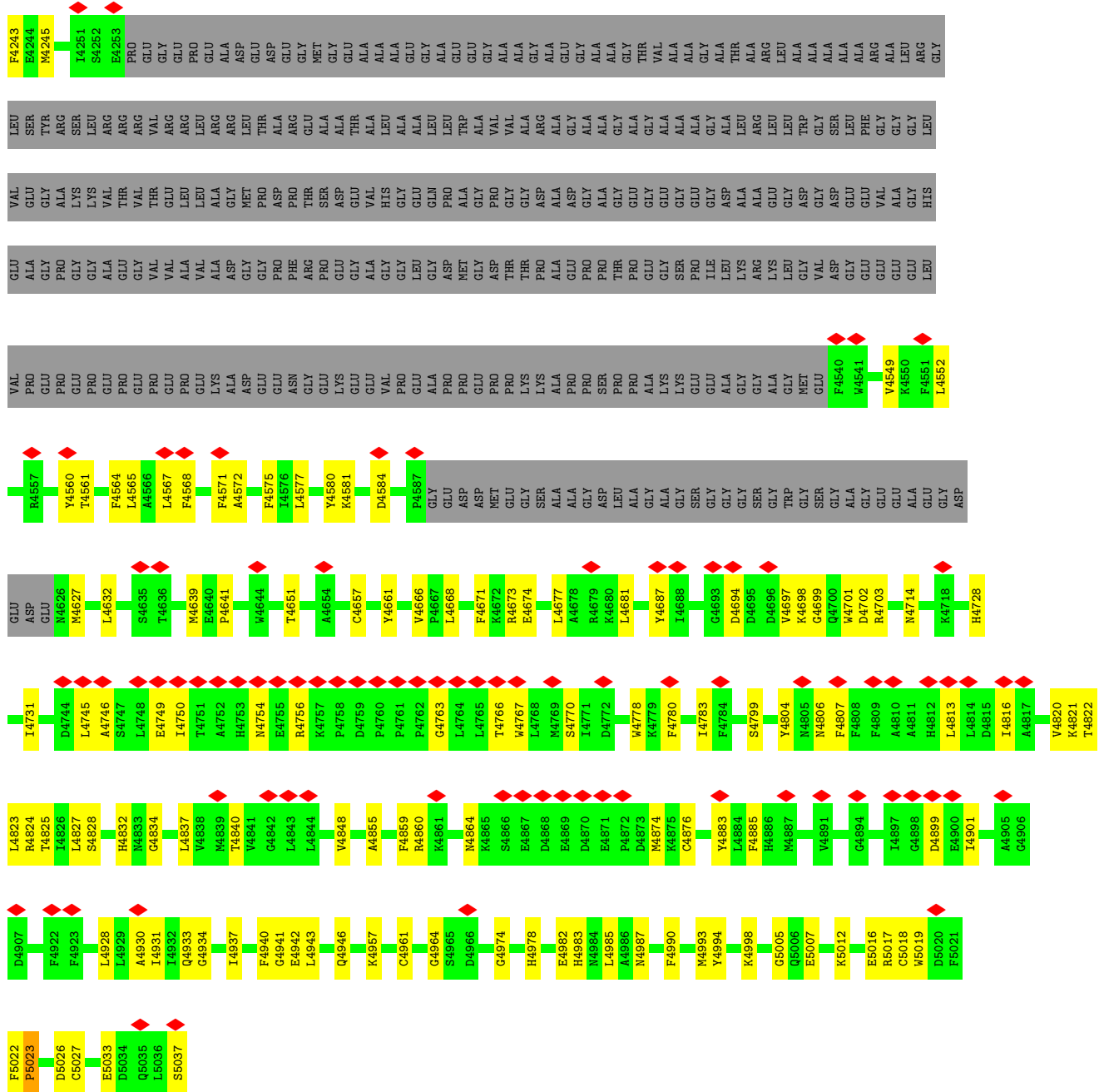
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

• Molecule 1: Ryanodine receptor 1

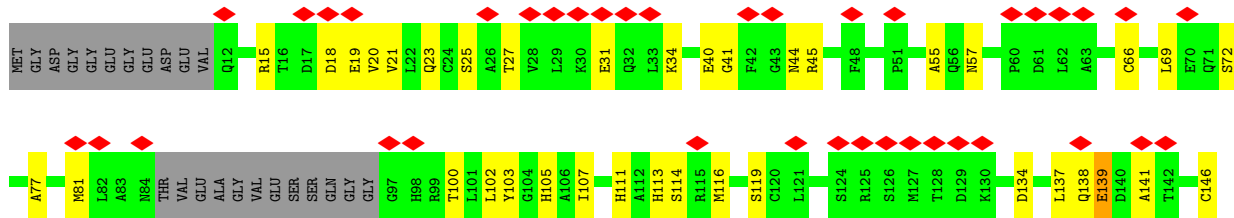


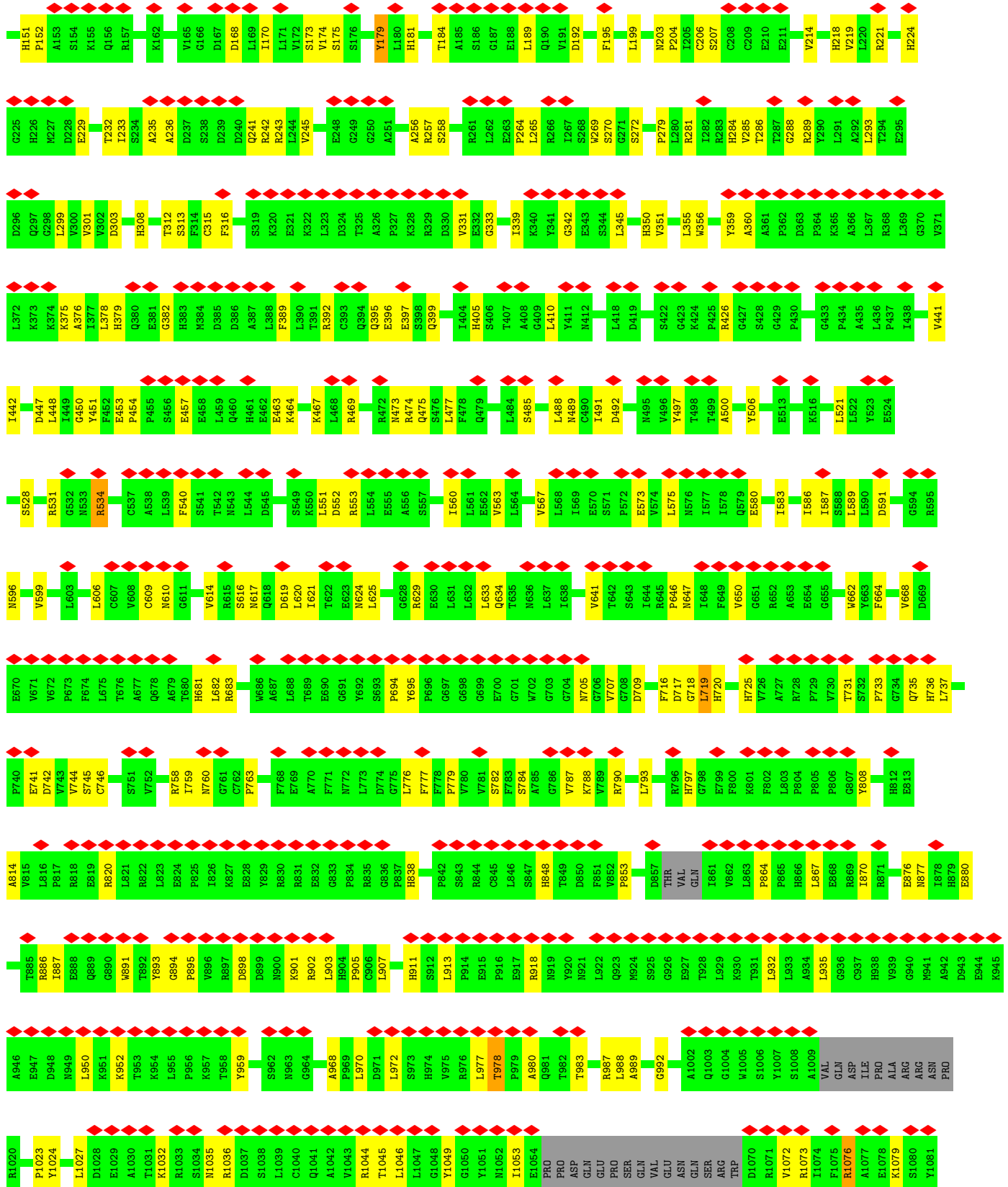


R4137	V4072	R3963	G3871	L3780	X3436	X3583	X3285	X3163	X2973	H2902
D4138	C4073	G5971	E3872	L3703	X3462	X3584	X3286	X3170	X2974	P2903
R4142	S4074	P3972	K3873	H3704	X3461	X3585	X3287	X3171	X2975	L2904
V4145	A4075	C3973	V3874	A3785	X3465	X3586	X3288	X3172	X2976	L2905
L4147	E4076	R3976	C3786	A3785	X3466	X3587	X3289	X3173	X2977	V2906
L4150	F4077	H3982	K3787	S3706	X3466	X3588	X3290	X3174	X2978	V2907
S4151	D4078	H3982	G3788	R3710	X3466	X3589	X3291	X3175	X2979	Y2908
E4152	Y4079	H3982	D3789	T3711	X3467	X3590	X3292	X3176	X2980	D2909
P4155	Y4080	K3986	T3790	E3712	X3468	X3591	X3293	X3177	X2981	T2910
H4156	V4081	K3986	L3805	K3714	X3511	X3606	X3294	X3178	X2982	L2911
R4159	D4082	V5990	N3806	S3715	X3512	X3607	X3295	X3179	X2983	T2912
L4164	D4083	L3993	G3807	R3716	X3513	X3608	X3296	X3180	X2984	A2913
S4169	P4084	H3994	L3888	D3717	X3516	X3609	X3297	X3181	X2985	R2914
E4172	R4085	V9995	L3890	E3718	X3520	X3610	X3298	X3182	X2986	E2915
Y4173	I4088	A3997	L3891	D3719	X3524	X3611	X3299	X3183	X2987	L2926
F4174	S4089	H3998	E3892	Y3720	X3528	X3612	X3300	X3184	X2988	L2927
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R4180	K4091	K4002	N3896	A3730	X3533	X3614	X3302	X3186	X2990	E2921
L4181	Q4094	Q4005	N3897	H3734	X3534	X3615	X3303	X3187	X2991	A2922
E4182	K4095	Q4006	D3898	L3735	X3535	X3616	X3304	X3188	X2992	A2923
Y4183	A4096	S4007	F3829	E3736	X3539	X3617	X3305	X3189	X2993	Q2924
R4188	M4097	S4008	Q3830	E3737	X3540	X3618	X3306	X3190	X2994	E2925
R4192	D4098	Q4009	S3831	G3738	X3543	X3619	X3307	X3191	X2995	L2926
L4193	S4099	Q4009	I3832	G3739	X3544	X3620	X3308	X3192	X2996	L2927
Y4194	D4100	L4019	Q3833	E3740	X3545	X3621	X3309	X3193	X2997	R2928
T4200	K4101	D4022	M3836	A3741	X3552	X3622	X3310	X3194	X2998	E2921
M4201	Q4102	M4023	V3841	GLY	X3556	X3623	X3311	X3195	X2999	A2922
Q4204	F4103	V4024	V3842	ALA	X3560	X3624	X3312	X3196	X3000	Q2924
R4215	L4104	V4025	I3843	GLU	X3561	X3625	X3313	X3197	X3001	E2925
I4218	G4105	M4026	D3844	GLU	X3562	X3626	X3314	X3198	X3002	L2926
E4224	G4106	L4027	Q3850	E3747	X3563	X3627	X3315	X3199	X3003	L2927
Q4226	E4107	L4028	N3851	E3748	X3564	X3628	X3316	X3200	X3004	R2928
A4228	S3929	E3928	K3852	E3749	X3565	X3629	X3317	X3201	X3005	F2929
E4232	S3930	S3929	K3853	V3749	X3566	X3630	X3318	X3202	X3006	L2930
S4236	M3935	S3936	E3854	E3750	X3567	X3631	X3319	X3203	X3007	L2931
D4240	Y3937	Y3937	G3855	E3751	X3568	X3632	X3320	X3204	X3008	Q2931
	S3938	S3938	L3856	S3752	X3569	X3633	X3321	X3205	X3009	R2932
	G3939	G3939	G3857	F3753	X3570	X3634	X3322	X3206	X3010	H2933
	K3940	K3940	K3858	E3754	X3571	X3635	X3323	X3207	X3011	H2934
	D3941	D3941	V3859	E3755	X3572	X3636	X3324	X3208	X3012	Q2934
	E3945	E3945	M3860	E3757	X3573	X3637	X3325	X3209	X3013	E2925
	Q3946	Q3946	E3861	M3758	X3574	X3638	X3326	X3210	X3014	L2926
	R3949	R3949	D3862	E3759	X3575	X3639	X3327	X3211	X3015	R2928
	N3950	N3950	G3863	E3760	X3576	X3640	X3328	X3212	X3016	F2929
	F3951	F3951	T3864	R3762	X3577	X3641	X3329	X3213	X3017	L2930
	K3959	K3959	V3865	L3770	X3578	X3642	X3330	X3214	X3018	L2931
	Q3960	Q3960	I3866	H3771	X3579	X3643	X3331	X3215	X3019	Q2931
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			R3868	R3773	X3581	X3645	X3333	X3217	X3021	H2933
			Q3869	A3776	X3582	X3646	X3334	X3218	X3022	Q2934
			N3870		X3583	X3647	X3335	X3219	X3023	E2925
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					X3586	X3650	X3338	X3222	X3026	R2928
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					X3588	X3652	X3340	X3224	X3028	L2930
					X3589	X3653	X3341	X3225	X3029	L2931
					X3590	X3654	X3342	X3226	X3030	R2932
					X3591	X3655	X3343	X3227	X3031	H2933
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					X3603	X3667	X3355	X3239	X3043	E2925
					X3604	X3668	X3356	X3240	X3044	L2926
					X3605	X3669	X3357	X3241	X3045	L2927
					X3606	X3670	X3358	X3242	X3046	R2928
					X3607	X3671	X3359	X3243	X3047	F2929
					X3608	X3672	X3360	X3244	X3048	L2930
					X3609	X3673	X3361	X3245	X3049	L2931
					X3610	X3674	X3362	X3246	X3050	R2932
					X3611	X3675	X3363	X3247	X3051	H2933
					X3612	X3676	X3364	X3248	X3052	Q2934
					X3613	X3677	X3365	X3249	X3053	E2925
					X3614	X3678	X3366	X3250	X3054	L2926
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					X3628	X3692	X3380	X3264	X3068	L2930
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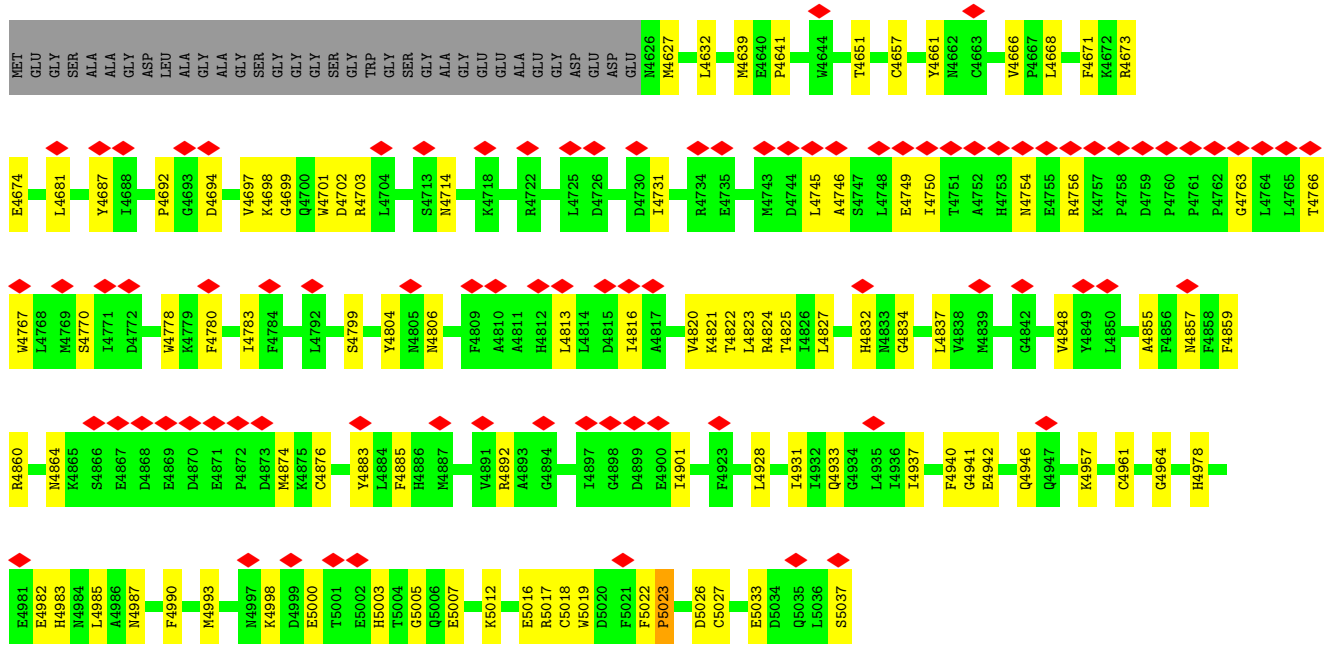


● Molecule 1: Ryanodine receptor 1

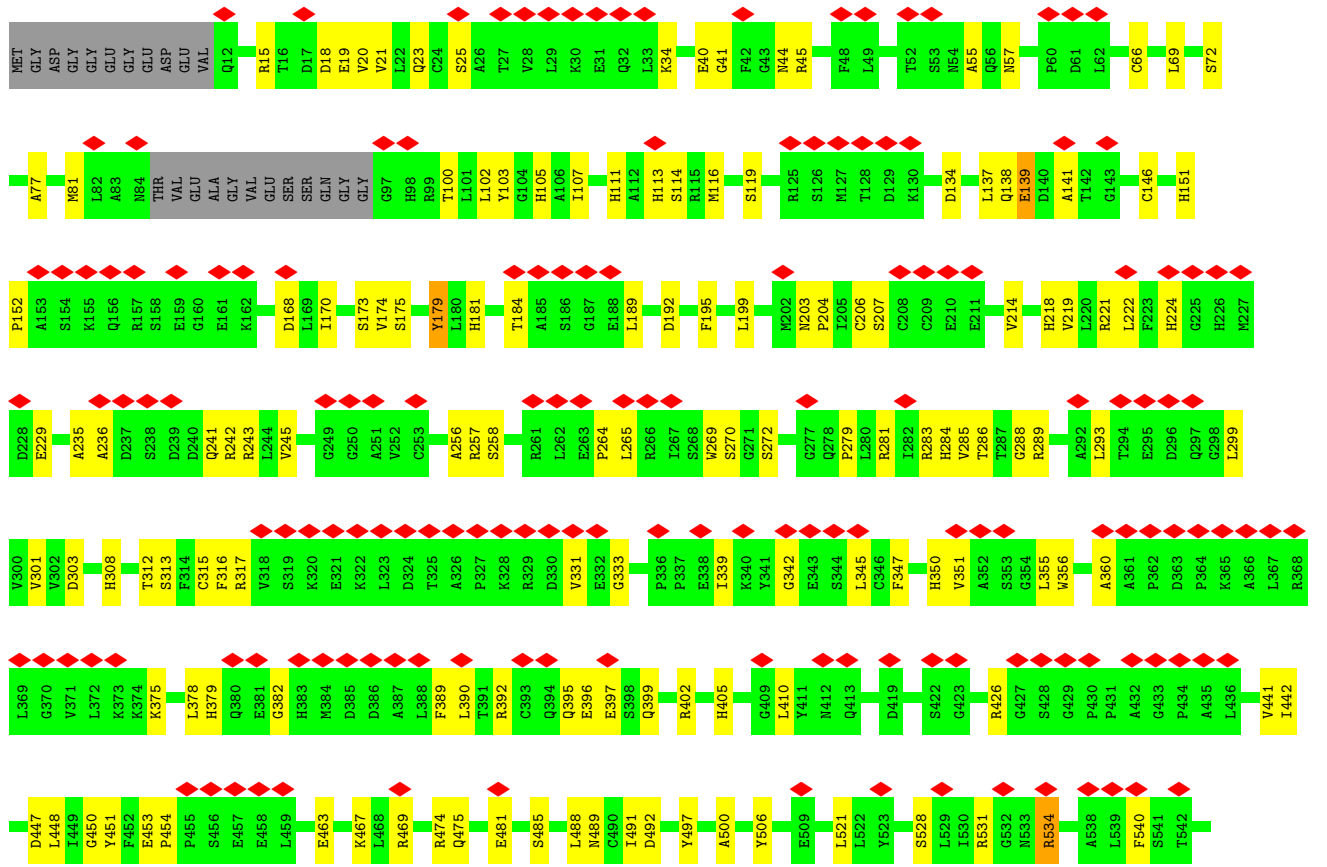


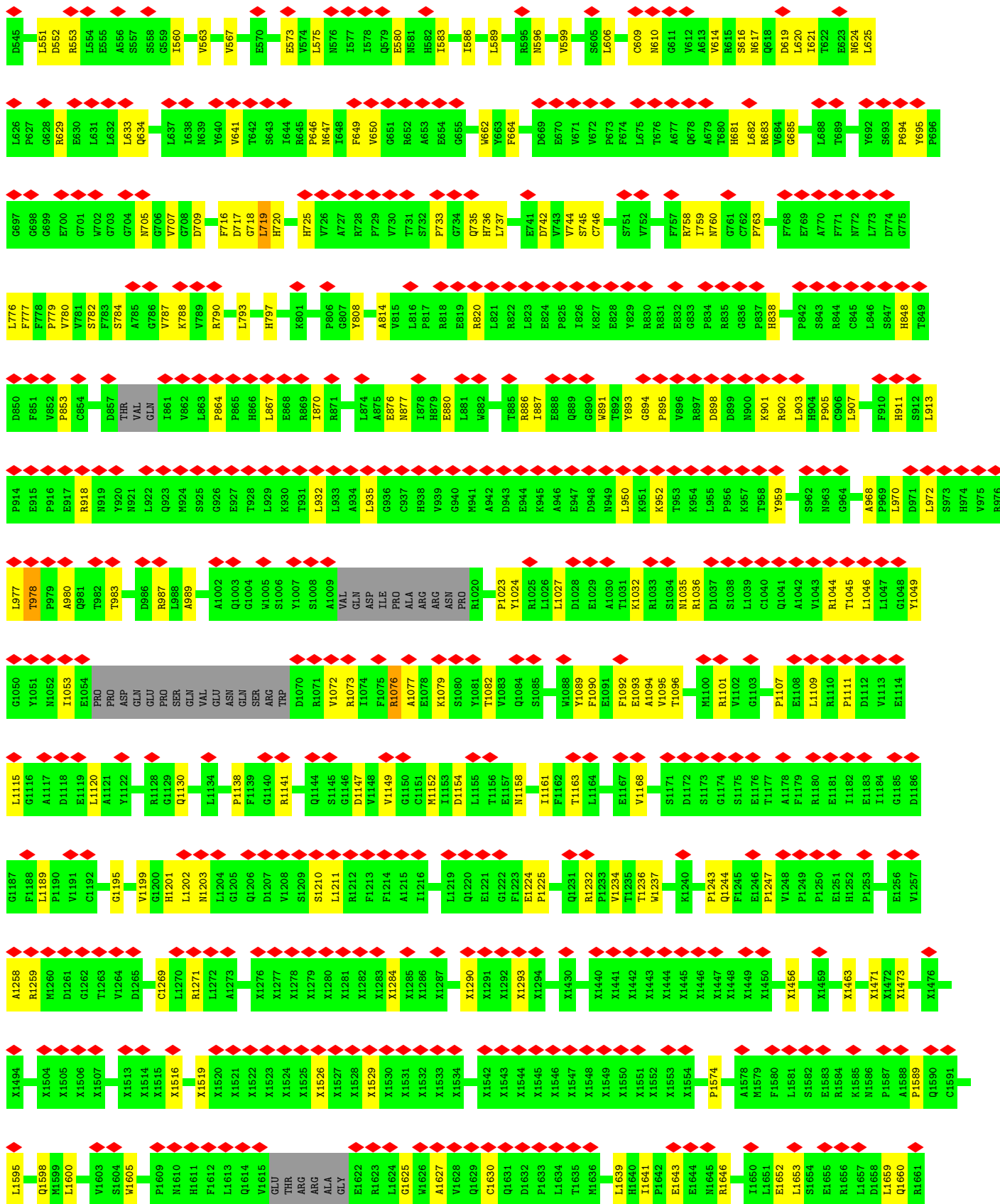


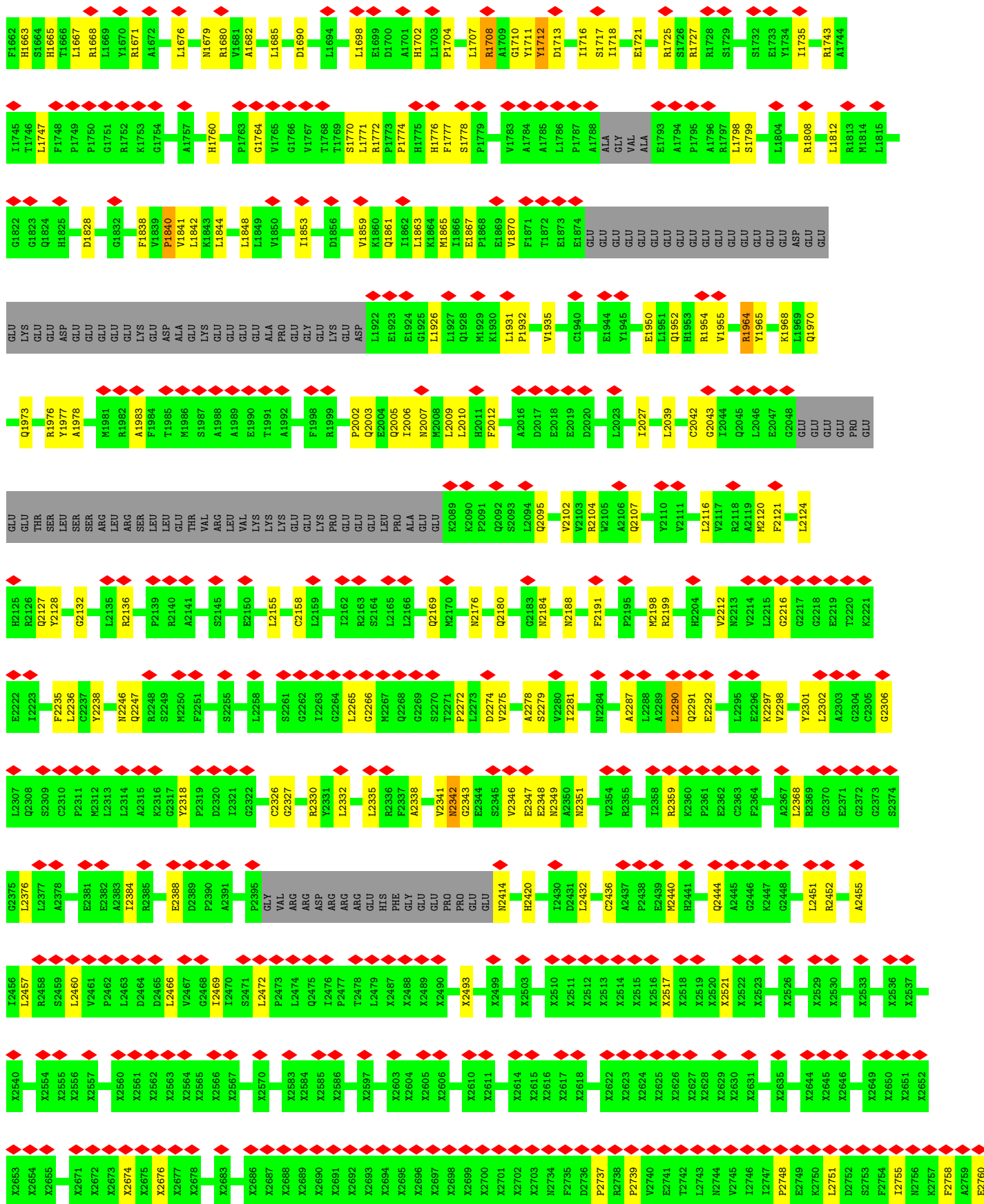
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G2375	L2376	L2377	A2378	I2379	I2380	E2381	I2384	E2388	D2389	P2390	A2391	F2395	GLY	VAL	ARG	ARG	ASP	ARG	ARG	ARG	GLU	HIS	PHE	GLY	GLU	PRO	PRO	GLU	N2414	R2415	S2424	A2427	A2428	D2431	L2432	C2436	M2440	H2441	L2442	L2443	Q2444	G2445	G2446	K2447	L2451	R2454	A2455											
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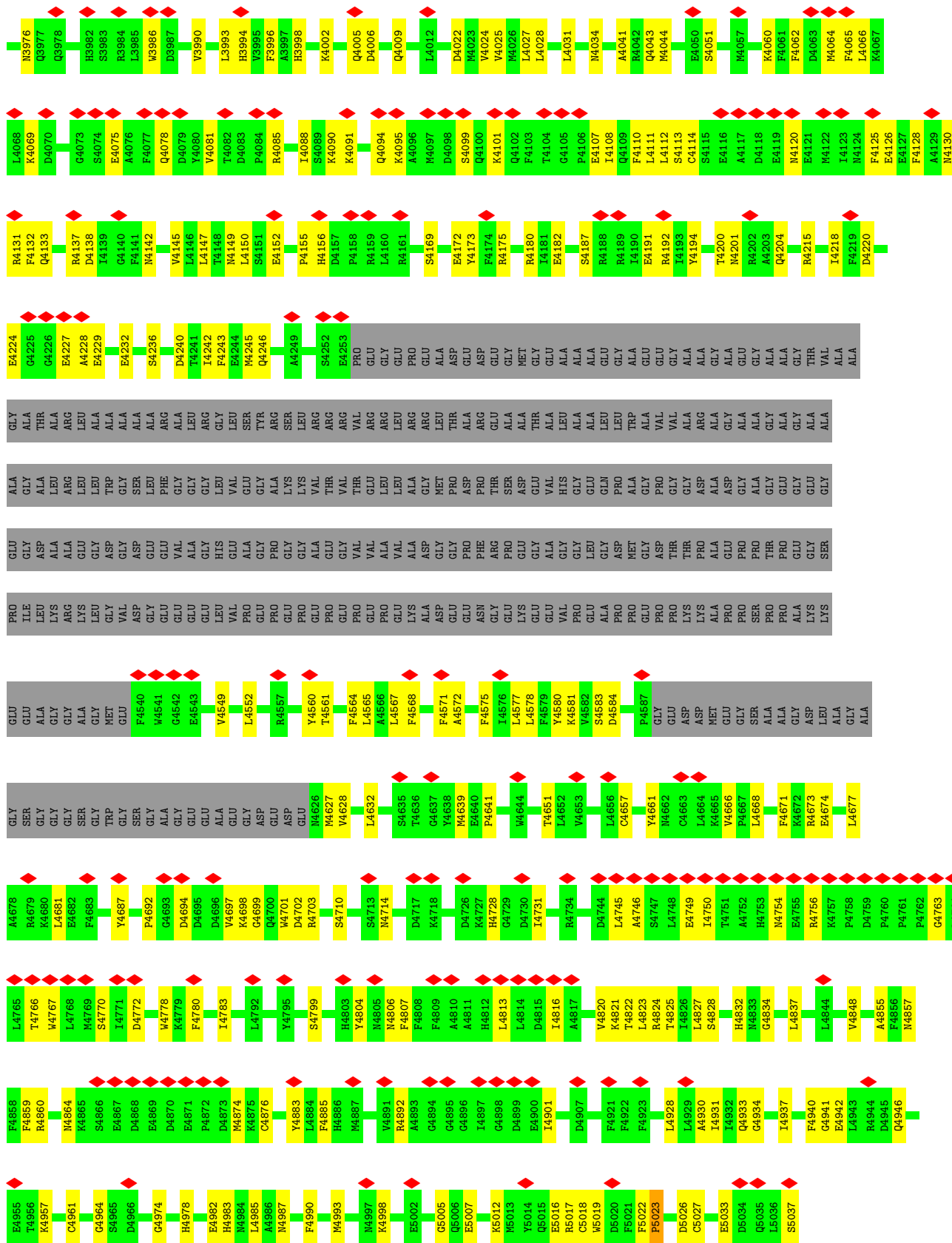


• Molecule 1: Ryanodine receptor 1

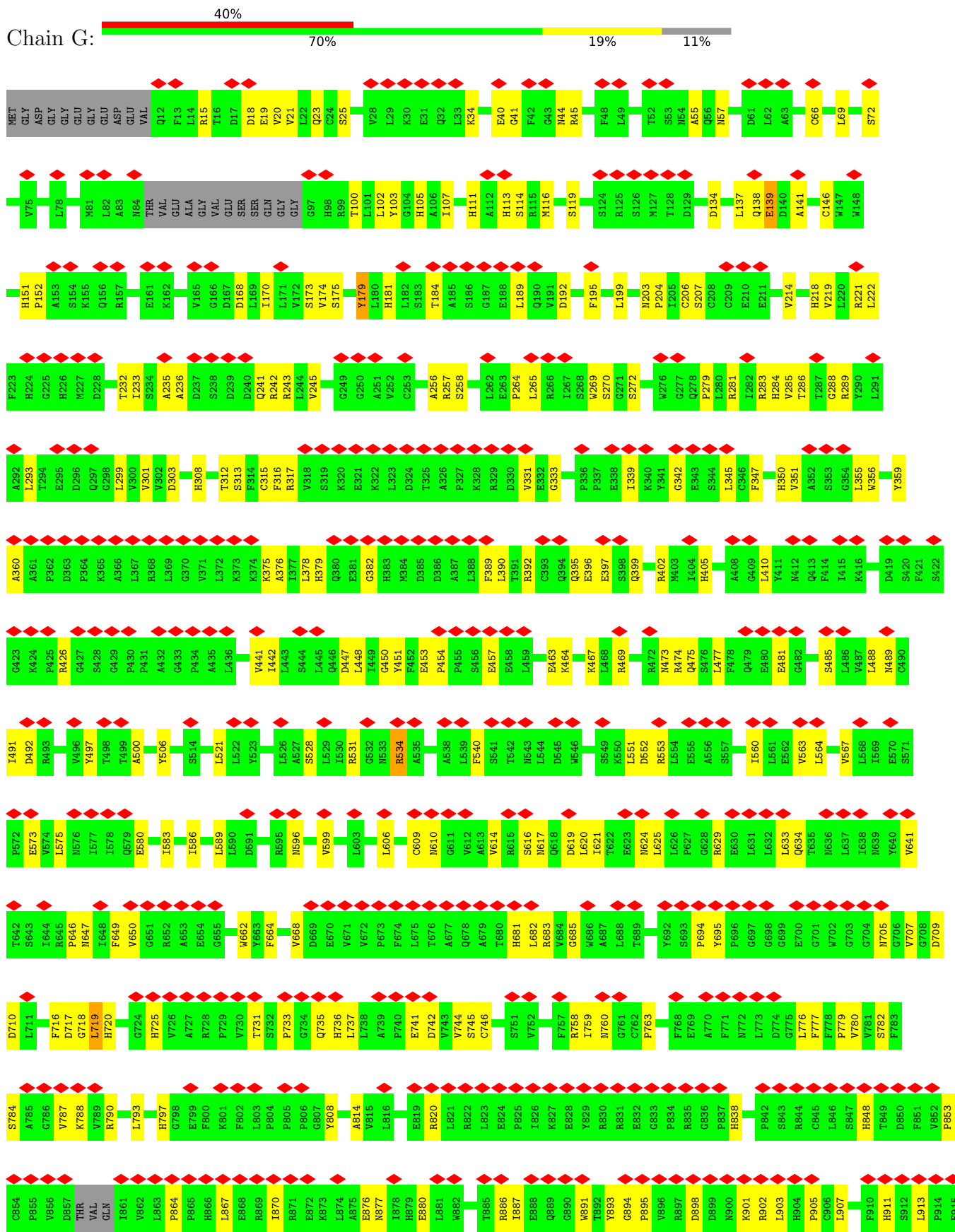






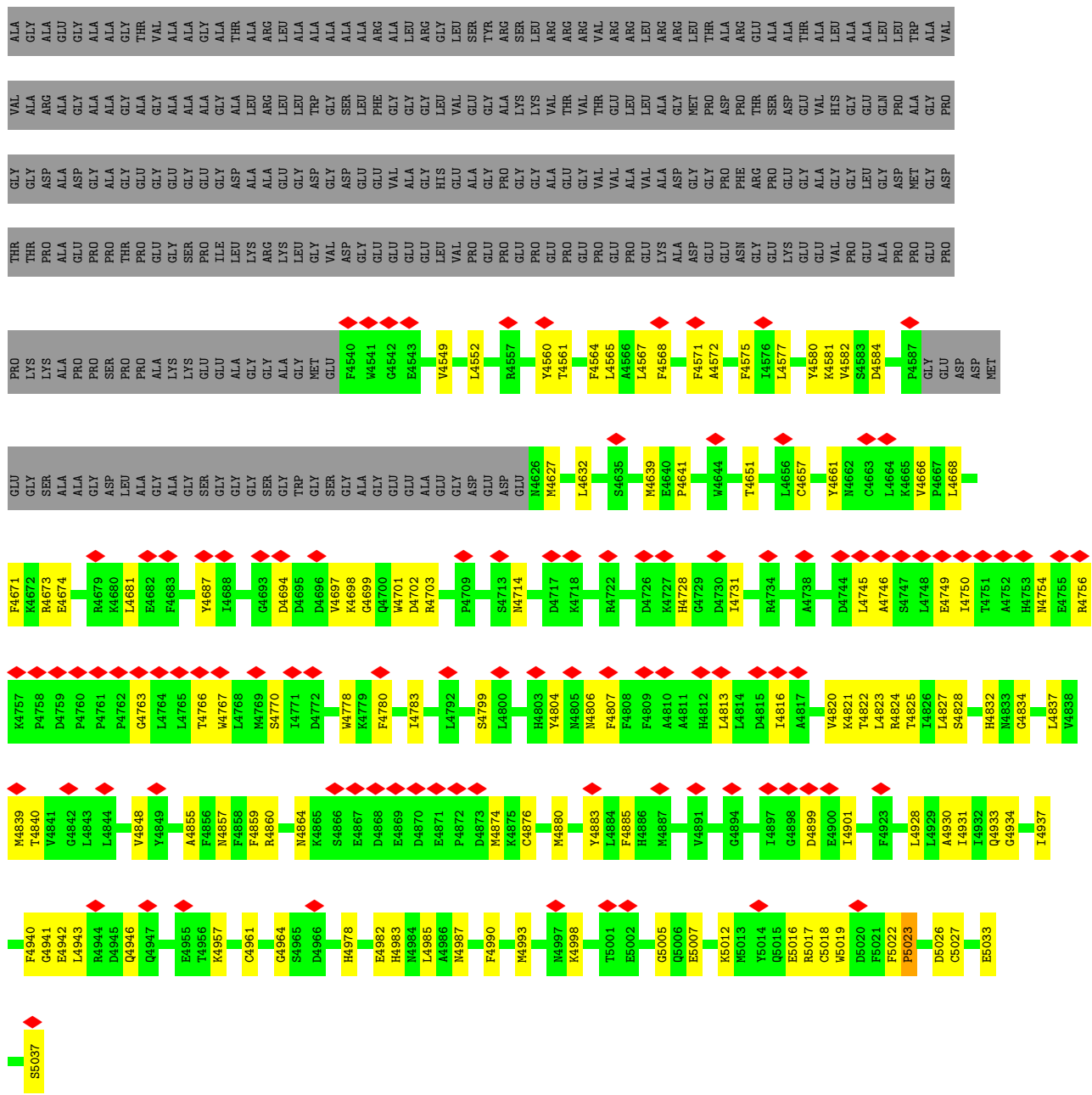


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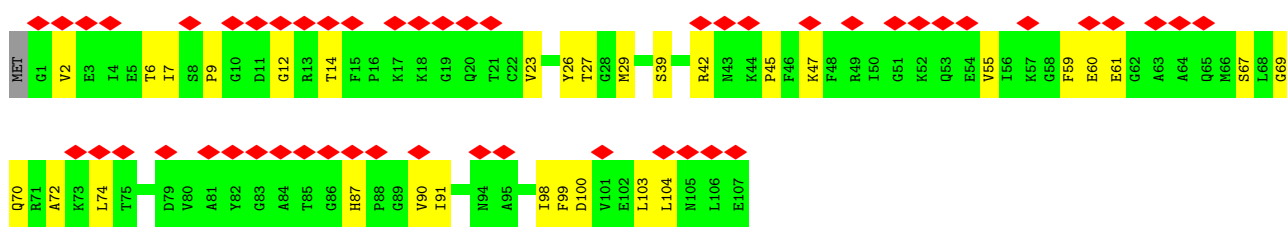


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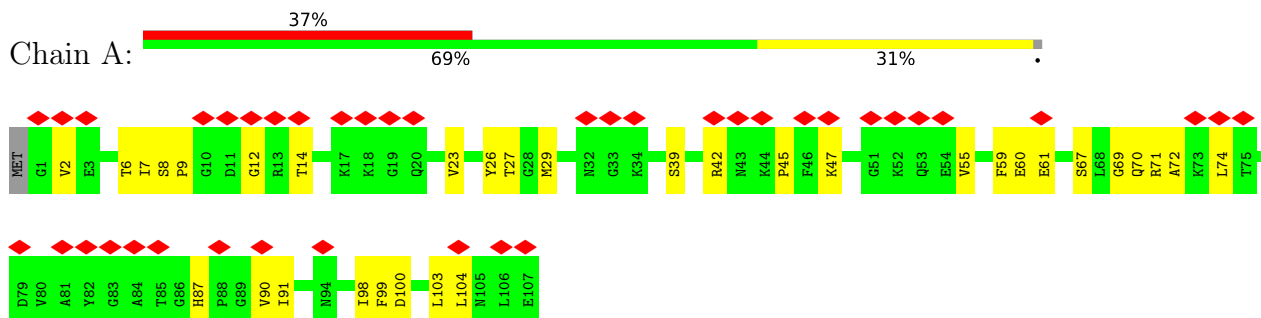
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							X3648	X3513	X3402	X3312	
							X3649	X3514	X3403	X3313	
							X3650	X3515	X3404	X3314	
							X3651	X3516	X3405	X3315	
							X3652	X3517	X3406	X3316	
							X3653	X3518	X3407	X3317	
							X3654	X3519	X3408	X3318	
							X3655	X3520	X3409	X3319	
							X3656	X3521	X3410	X3320	
							X3657	X3522	X3411	X3321	
							X3658	X3523	X3412	X3322	
							X3659	X3524	X3413	X3323	
							X3660	X3525	X3414	X3324	
							X3661	X3526	X3415	X3325	
							X3662	X3527	X3416	X3326	
							X3663	X3528	X3417	X3327	
							X3664	X3529	X3418	X3328	
							X3665	X3530	X3419	X3329	
							X3666	X3531	X3420	X3330	
							X3667	X3532	X3421	X3331	
							X3668	X3533	X3422	X3332	
							X3669	X3534	X3423	X3333	
							X3670	X3535	X3424	X3334	
							X3671	X3536	X3425	X3335	
							X3672	X3537	X3426	X3336	
							X3673	X3538	X3427	X3337	
							X3674	X3539	X3428	X3338	
							X3675	X3540	X3429	X3339	
							X3676	X3541	X3430	X3340	
							X3677	X3542	X3431	X3341	
							X3678	X3543	X3432	X3342	
							X3679	X3544	X3433	X3343	
							X3680	X3545	X3434	X3344	
							X3681	X3546	X3435	X3345	
							X3682	X3547	X3436	X3346	
							X3683	X3548	X3437	X3347	
							X3684	X3549	X3438	X3348	
							X3685	X3550	X3439	X3349	
							X3686	X3551	X3440	X3350	
							X3687	X3552	X3441	X3351	
							X3688	X3553	X3442	X3352	
							X3689	X3554	X3443	X3353	
							X3690	X3555	X3444	X3354	
							X3691	X3556	X3445	X3355	
							X3692	X3557	X3446	X3356	
							X3693	X3558	X3447	X3357	
							X3694	X3559	X3448	X3358	
							X3695	X3560	X3449	X3359	
							X3696	X3561	X3450	X3360	
							X3697	X3562	X3451	X3361	
							X3698	X3563	X3452	X3362	
							X3699	X3564	X3453	X3363	
							X3700	X3565	X3454	X3364	
							X3701	X3566	X3455	X3365	
							X3702	X3567	X3456	X3366	
							X3703	X3568	X3457	X3367	
							X3704	X3569	X3458	X3368	
							X3705	X3570	X3459	X3369	
							X3706	X3571	X3460	X3370	
							X3707	X3572	X3461	X3371	



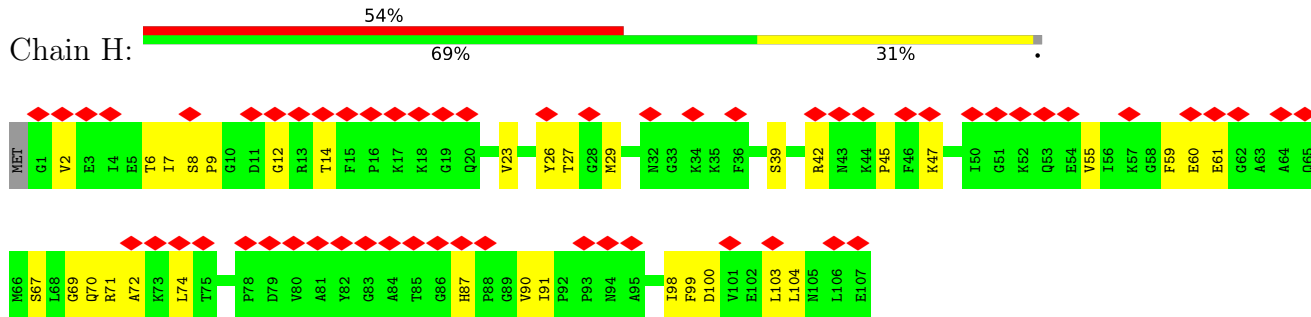
● Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



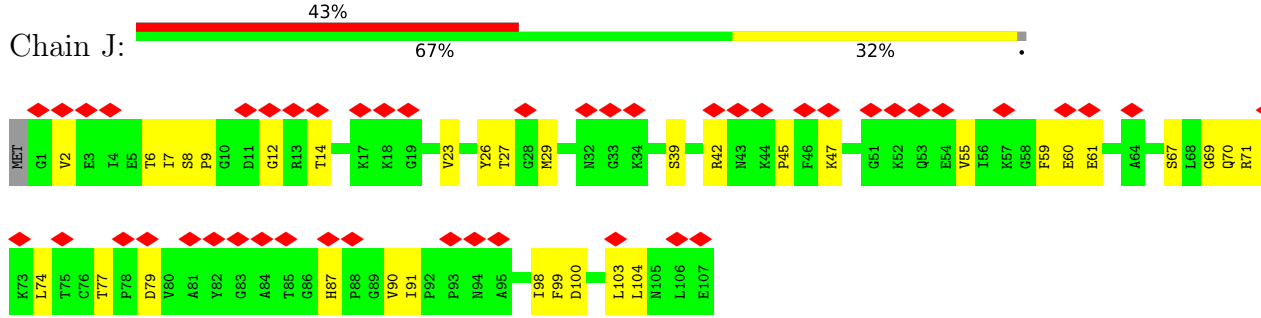
● Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



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



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



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C4	Depositor
Number of particles used	791956	Depositor
Resolution determination method	OTHER	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	50	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.535	Depositor
Minimum map value	-0.203	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.026	Depositor
Recommended contour level	0.166	Depositor
Map size (Å)	502.0, 502.0, 502.0	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.255, 1.255, 1.255	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, CA

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	B	0.35	0/25428	0.59	6/34534 (0.0%)
1	E	0.35	0/25428	0.59	6/34534 (0.0%)
1	G	0.35	0/25428	0.59	6/34534 (0.0%)
1	I	0.35	0/25428	0.59	6/34534 (0.0%)
2	A	0.35	0/834	0.61	0/1123
2	F	0.35	0/834	0.61	0/1123
2	H	0.35	0/834	0.61	0/1123
2	J	0.35	0/834	0.61	0/1123
All	All	0.35	0/105048	0.59	24/142628 (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	B	0	22
1	E	0	22
1	G	0	22
1	I	0	22
All	All	0	88

There are no bond length outliers.

All (24) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	1667	LEU	CA-CB-CG	6.67	130.64	115.30
1	B	1667	LEU	CA-CB-CG	6.66	130.62	115.30
1	G	1667	LEU	CA-CB-CG	6.64	130.56	115.30
1	I	1667	LEU	CA-CB-CG	6.62	130.53	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	977	LEU	CA-CB-CG	5.60	128.18	115.30
1	I	977	LEU	CA-CB-CG	5.57	128.12	115.30
1	G	977	LEU	CA-CB-CG	5.57	128.11	115.30
1	E	977	LEU	CA-CB-CG	5.54	128.05	115.30
1	E	2291	GLN	C-N-CA	5.48	135.40	121.70
1	I	2291	GLN	C-N-CA	5.48	135.41	121.70
1	B	2291	GLN	C-N-CA	5.47	135.37	121.70
1	G	2291	GLN	C-N-CA	5.46	135.35	121.70
1	G	719	LEU	CA-CB-CG	5.28	127.45	115.30
1	I	719	LEU	CA-CB-CG	5.28	127.45	115.30
1	E	719	LEU	CA-CB-CG	5.27	127.41	115.30
1	B	719	LEU	CA-CB-CG	5.26	127.41	115.30
1	B	2290	LEU	CA-CB-CG	5.15	127.15	115.30
1	I	2290	LEU	CA-CB-CG	5.15	127.14	115.30
1	G	2290	LEU	CA-CB-CG	5.15	127.14	115.30
1	E	2290	LEU	CA-CB-CG	5.14	127.12	115.30
1	E	4639	MET	C-N-CA	5.12	134.50	121.70
1	G	4639	MET	C-N-CA	5.11	134.47	121.70
1	B	4639	MET	C-N-CA	5.10	134.45	121.70
1	I	4639	MET	C-N-CA	5.08	134.41	121.70

There are no chirality outliers.

All (88) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	B	139	GLU	Peptide
1	B	1676	LEU	Peptide
1	B	1690	ASP	Peptide
1	B	1712	TYR	Peptide
1	B	179	TYR	Peptide
1	B	1828	ASP	Peptide
1	B	1840	PRO	Peptide
1	B	2169	GLN	Peptide
1	B	2292	GLU	Peptide
1	B	2342	ASN	Peptide
1	B	2343	GLY	Peptide
1	B	2472	LEU	Peptide
1	B	2807	TRP	Peptide
1	B	3760	LYS	Peptide
1	B	3771	HIS	Peptide
1	B	3786	CYS	Peptide
1	B	3971	GLY	Peptide

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Mol	Chain	Res	Type	Group
1	B	4666	VAL	Peptide
1	B	4694	ASP	Peptide
1	B	552	ASP	Peptide
1	B	694	PRO	Peptide
1	B	808	TYR	Peptide
1	E	139	GLU	Peptide
1	E	1676	LEU	Peptide
1	E	1690	ASP	Peptide
1	E	1712	TYR	Peptide
1	E	179	TYR	Peptide
1	E	1828	ASP	Peptide
1	E	1840	PRO	Peptide
1	E	2169	GLN	Peptide
1	E	2292	GLU	Peptide
1	E	2342	ASN	Peptide
1	E	2343	GLY	Peptide
1	E	2472	LEU	Peptide
1	E	2807	TRP	Peptide
1	E	3760	LYS	Peptide
1	E	3771	HIS	Peptide
1	E	3786	CYS	Peptide
1	E	3971	GLY	Peptide
1	E	4666	VAL	Peptide
1	E	4694	ASP	Peptide
1	E	552	ASP	Peptide
1	E	694	PRO	Peptide
1	E	808	TYR	Peptide
1	G	139	GLU	Peptide
1	G	1676	LEU	Peptide
1	G	1690	ASP	Peptide
1	G	1712	TYR	Peptide
1	G	179	TYR	Peptide
1	G	1828	ASP	Peptide
1	G	1840	PRO	Peptide
1	G	2169	GLN	Peptide
1	G	2292	GLU	Peptide
1	G	2342	ASN	Peptide
1	G	2343	GLY	Peptide
1	G	2472	LEU	Peptide
1	G	2807	TRP	Peptide
1	G	3760	LYS	Peptide
1	G	3771	HIS	Peptide

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Mol	Chain	Res	Type	Group
1	G	3786	CYS	Peptide
1	G	3971	GLY	Peptide
1	G	4666	VAL	Peptide
1	G	4694	ASP	Peptide
1	G	552	ASP	Peptide
1	G	694	PRO	Peptide
1	G	808	TYR	Peptide
1	I	139	GLU	Peptide
1	I	1676	LEU	Peptide
1	I	1690	ASP	Peptide
1	I	1712	TYR	Peptide
1	I	179	TYR	Peptide
1	I	1828	ASP	Peptide
1	I	1840	PRO	Peptide
1	I	2169	GLN	Peptide
1	I	2292	GLU	Peptide
1	I	2342	ASN	Peptide
1	I	2343	GLY	Peptide
1	I	2472	LEU	Peptide
1	I	2807	TRP	Peptide
1	I	3760	LYS	Peptide
1	I	3771	HIS	Peptide
1	I	3786	CYS	Peptide
1	I	3971	GLY	Peptide
1	I	4666	VAL	Peptide
1	I	4694	ASP	Peptide
1	I	552	ASP	Peptide
1	I	694	PRO	Peptide
1	I	808	TYR	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	B	29369	0	24717	498	0
1	E	29369	0	24716	494	0
1	G	29369	0	24717	506	0
1	I	29369	0	24717	497	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	A	818	0	824	19	0
2	F	818	0	824	19	0
2	H	818	0	824	19	0
2	J	818	0	824	20	0
3	B	1	0	0	0	0
3	E	1	0	0	0	0
3	G	1	0	0	0	0
3	I	1	0	0	0	0
4	B	1	0	0	0	0
4	E	1	0	0	0	0
4	G	1	0	0	0	0
4	I	1	0	0	0	0
All	All	120756	0	102163	2047	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 9.

All (2047) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2318:TYR:HH	1:G:2414:ASN:N	1.80	0.79
1:I:2318:TYR:HH	1:I:2414:ASN:N	1.80	0.79
1:E:2318:TYR:HH	1:E:2414:ASN:N	1.81	0.79
1:B:2318:TYR:HH	1:B:2414:ASN:N	1.81	0.79
1:E:179:TYR:OH	1:G:2359:ARG:NH1	2.18	0.76
1:E:4674:GLU:HG3	1:E:4714:ASN:HB3	1.73	0.71
1:E:4731:ILE:HA	1:G:4101:LYS:HG3	1.71	0.71
1:B:4674:GLU:HG3	1:B:4714:ASN:HB3	1.73	0.70
1:G:4674:GLU:HG3	1:G:4714:ASN:HB3	1.73	0.70
1:G:1671:ARG:NH2	1:G:1710:GLY:O	2.25	0.70
1:I:4674:GLU:HG3	1:I:4714:ASN:HB3	1.73	0.69
1:E:1671:ARG:NH2	1:E:1710:GLY:O	2.25	0.69
1:I:1671:ARG:NH2	1:I:1710:GLY:O	2.25	0.69
1:B:1671:ARG:NH2	1:B:1710:GLY:O	2.25	0.69
1:G:4855:ALA:HA	1:G:4859:PHE:HB2	1.75	0.69
1:I:4855:ALA:HA	1:I:4859:PHE:HB2	1.75	0.69
1:B:2266:GLY:O	1:B:2330:ARG:NH2	2.27	0.68
1:B:4855:ALA:HA	1:B:4859:PHE:HB2	1.75	0.68
1:E:4855:ALA:HA	1:E:4859:PHE:HB2	1.75	0.68
1:I:219:VAL:HG13	1:I:285:VAL:HG21	1.75	0.68
1:G:646:PRO:HD2	1:G:779:PRO:HB2	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:2266:GLY:O	1:I:2330:ARG:NH2	2.27	0.68
1:G:2266:GLY:O	1:G:2330:ARG:NH2	2.26	0.68
1:E:646:PRO:HD2	1:E:779:PRO:HB2	1.76	0.67
1:B:219:VAL:HG13	1:B:285:VAL:HG21	1.75	0.67
1:E:219:VAL:HG13	1:E:285:VAL:HG21	1.75	0.67
1:B:788:LYS:HG2	1:B:1630:CYS:H	1.59	0.67
1:E:2266:GLY:O	1:E:2330:ARG:NH2	2.27	0.67
1:I:646:PRO:HD2	1:I:779:PRO:HB2	1.76	0.67
1:E:788:LYS:HG2	1:E:1630:CYS:H	1.59	0.67
1:G:331:VAL:HG12	1:G:333:GLY:H	1.60	0.67
1:B:646:PRO:HD2	1:B:779:PRO:HB2	1.76	0.67
1:G:219:VAL:HG13	1:G:285:VAL:HG21	1.75	0.67
1:I:331:VAL:HG12	1:I:333:GLY:H	1.60	0.66
1:E:331:VAL:HG12	1:E:333:GLY:H	1.60	0.66
1:G:788:LYS:HG2	1:G:1630:CYS:H	1.59	0.66
1:B:151:HIS:HB2	1:B:170:ILE:HB	1.78	0.66
1:I:788:LYS:HG2	1:I:1630:CYS:H	1.59	0.65
1:B:103:TYR:HB3	1:B:152:PRO:HD3	1.79	0.65
1:B:2755:ILE:HD13	1:B:2810:LYS:HG2	1.77	0.65
1:G:2755:ILE:HD13	1:G:2810:LYS:HG2	1.78	0.65
1:I:1092:PHE:HB3	1:I:1149:VAL:HB	1.77	0.65
1:E:2755:ILE:HD13	1:E:2810:LYS:HG2	1.77	0.65
1:E:1777:PHE:HA	1:E:1799:SER:HB2	1.78	0.65
1:I:103:TYR:HB3	1:I:152:PRO:HD3	1.79	0.65
1:I:151:HIS:HB2	1:I:170:ILE:HB	1.78	0.65
1:I:2755:ILE:HD13	1:I:2810:LYS:HG2	1.78	0.65
1:G:103:TYR:HB3	1:G:152:PRO:HD3	1.79	0.65
1:G:742:ASP:HA	1:G:760:ASN:HD21	1.62	0.65
1:E:103:TYR:HB3	1:E:152:PRO:HD3	1.79	0.65
1:G:1092:PHE:HB3	1:G:1149:VAL:HB	1.77	0.65
1:B:331:VAL:HG12	1:B:333:GLY:H	1.60	0.65
1:B:1092:PHE:HB3	1:B:1149:VAL:HB	1.77	0.65
1:E:4961:CYS:SG	1:E:4978:HIS:NE2	2.70	0.65
1:E:2287:ALA:HA	1:E:2290:LEU:HD13	1.79	0.64
1:I:1519:UNK:HA	1:I:1526:UNK:HA	1.79	0.64
1:E:745:SER:HB2	1:E:758:ARG:HB3	1.79	0.64
1:G:4961:CYS:SG	1:G:4978:HIS:NE2	2.70	0.64
1:B:1777:PHE:HA	1:B:1799:SER:HB2	1.78	0.64
1:E:151:HIS:HB2	1:E:170:ILE:HB	1.79	0.64
1:I:742:ASP:HA	1:I:760:ASN:HD21	1.62	0.64
1:B:4813:LEU:HD12	1:B:4816:ILE:HD11	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:1777:PHE:HA	1:I:1799:SER:HB2	1.78	0.64
1:G:151:HIS:HB2	1:G:170:ILE:HB	1.79	0.64
1:G:4813:LEU:HD12	1:G:4816:ILE:HD11	1.79	0.64
1:B:742:ASP:HA	1:B:760:ASN:HD21	1.62	0.64
1:E:742:ASP:HA	1:E:760:ASN:HD21	1.62	0.64
1:E:1092:PHE:HB3	1:E:1149:VAL:HB	1.77	0.64
1:I:2287:ALA:HA	1:I:2290:LEU:HD13	1.79	0.64
1:G:745:SER:HB2	1:G:758:ARG:HB3	1.79	0.64
1:G:1777:PHE:HA	1:G:1799:SER:HB2	1.78	0.64
1:G:2095:GLN:O	1:G:2127:GLN:NE2	2.31	0.64
1:G:2876:GLU:OE1	1:G:2920:ARG:NH2	2.31	0.64
1:B:745:SER:HB2	1:B:758:ARG:HB3	1.79	0.64
1:G:1519:UNK:HA	1:G:1526:UNK:HA	1.80	0.64
1:B:4961:CYS:SG	1:B:4978:HIS:NE2	2.71	0.63
1:E:1079:LYS:NZ	1:E:1107:PRO:O	2.31	0.63
1:I:745:SER:HB2	1:I:758:ARG:HB3	1.79	0.63
1:I:4961:CYS:SG	1:I:4978:HIS:NE2	2.71	0.63
1:B:1079:LYS:NZ	1:B:1107:PRO:O	2.31	0.63
1:E:4813:LEU:HD12	1:E:4816:ILE:HD11	1.79	0.63
1:I:2095:GLN:O	1:I:2127:GLN:NE2	2.31	0.63
1:I:1079:LYS:NZ	1:I:1107:PRO:O	2.31	0.63
2:F:26:TYR:OH	2:F:42:ARG:NH2	2.32	0.63
1:G:454:PRO:HG2	1:G:531:ARG:HH12	1.64	0.63
2:H:74:LEU:HB2	2:H:99:PHE:HB2	1.80	0.63
1:I:2876:GLU:OE1	1:I:2920:ARG:NH2	2.31	0.63
2:A:26:TYR:OH	2:A:42:ARG:NH2	2.32	0.63
1:B:853:PRO:HB3	1:B:1024:TYR:H	1.64	0.63
1:I:4807:PHE:HZ	1:G:4857:ASN:HB2	1.64	0.63
1:G:853:PRO:HB3	1:G:1024:TYR:H	1.64	0.63
1:B:2876:GLU:OE1	1:B:2920:ARG:NH2	2.31	0.63
1:E:454:PRO:HG2	1:E:531:ARG:HH12	1.64	0.63
1:I:454:PRO:HG2	1:I:531:ARG:HH12	1.64	0.63
1:G:2287:ALA:HA	1:G:2290:LEU:HD13	1.79	0.63
1:B:454:PRO:HG2	1:B:531:ARG:HH12	1.64	0.62
1:E:2876:GLU:OE1	1:E:2920:ARG:NH2	2.31	0.62
2:F:74:LEU:HB2	2:F:99:PHE:HB2	1.80	0.62
2:A:6:THR:HA	2:A:72:ALA:HA	1.82	0.62
1:B:609:CYS:SG	1:B:610:ASN:N	2.72	0.62
1:B:3993:LEU:HA	1:B:3996:PHE:HB2	1.82	0.62
1:E:2095:GLN:O	1:E:2127:GLN:NE2	2.31	0.62
1:G:609:CYS:SG	1:G:610:ASN:N	2.72	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:26:TYR:OH	2:H:42:ARG:NH2	2.32	0.62
1:B:2287:ALA:HA	1:B:2290:LEU:HD13	1.79	0.62
1:I:609:CYS:SG	1:I:610:ASN:N	2.72	0.62
1:I:4892:ARG:NH2	1:G:4899:ASP:OD1	2.28	0.62
1:E:606:LEU:O	1:E:617:ASN:ND2	2.33	0.62
1:I:606:LEU:O	1:I:617:ASN:ND2	2.33	0.62
2:J:74:LEU:HB2	2:J:99:PHE:HB2	1.80	0.62
1:B:2095:GLN:O	1:B:2127:GLN:NE2	2.31	0.62
1:I:4813:LEU:HD12	1:I:4816:ILE:HD11	1.79	0.62
1:E:853:PRO:HB3	1:E:1024:TYR:H	1.64	0.62
1:E:3993:LEU:HA	1:E:3996:PHE:HB2	1.82	0.62
1:G:3993:LEU:HA	1:G:3996:PHE:HB2	1.82	0.62
1:B:606:LEU:O	1:B:617:ASN:ND2	2.33	0.62
1:E:3937:TYR:O	1:E:4002:LYS:NZ	2.33	0.62
1:I:3973:CYS:SG	1:I:3976:ASN:ND2	2.73	0.62
1:G:606:LEU:O	1:G:617:ASN:ND2	2.33	0.62
1:I:853:PRO:HB3	1:I:1024:TYR:H	1.64	0.61
2:J:6:THR:HA	2:J:72:ALA:HA	1.82	0.61
2:J:26:TYR:OH	2:J:42:ARG:NH2	2.32	0.61
1:I:1244:GLN:HB3	1:I:1646:ARG:HH12	1.65	0.61
1:G:3937:TYR:O	1:G:4002:LYS:NZ	2.33	0.61
1:G:3973:CYS:SG	1:G:3976:ASN:ND2	2.73	0.61
1:B:1244:GLN:HB3	1:B:1646:ARG:HH12	1.65	0.61
1:G:1079:LYS:NZ	1:G:1107:PRO:O	2.31	0.61
2:H:6:THR:HA	2:H:72:ALA:HA	1.82	0.61
1:B:3973:CYS:SG	1:B:3976:ASN:ND2	2.73	0.61
1:E:609:CYS:SG	1:E:610:ASN:N	2.72	0.61
1:E:1247:PRO:HA	1:E:1598:GLN:HA	1.83	0.61
1:B:3937:TYR:O	1:B:4002:LYS:NZ	2.33	0.61
2:A:74:LEU:HB2	2:A:99:PHE:HB2	1.80	0.61
2:H:23:VAL:HG22	2:H:47:LYS:HG2	1.83	0.61
1:B:575:LEU:HD22	1:B:609:CYS:HB3	1.83	0.61
1:G:4673:ARG:HH22	1:G:4698:LYS:HB2	1.66	0.61
2:J:87:HIS:N	2:J:91:ILE:O	2.34	0.61
1:B:1808:ARG:NH1	1:B:1853:ILE:O	2.34	0.60
1:I:575:LEU:HD22	1:I:609:CYS:HB3	1.83	0.60
2:F:23:VAL:HG22	2:F:47:LYS:HG2	1.83	0.60
2:F:87:HIS:N	2:F:91:ILE:O	2.34	0.60
2:F:6:THR:HA	2:F:72:ALA:HA	1.82	0.60
2:A:87:HIS:N	2:A:91:ILE:O	2.34	0.60
1:B:1247:PRO:HA	1:B:1598:GLN:HA	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4673:ARG:HH22	1:E:4698:LYS:HB2	1.66	0.60
1:I:1203:ASN:ND2	1:I:1210:SER:O	2.35	0.60
1:B:1203:ASN:ND2	1:B:1210:SER:O	2.34	0.60
1:E:3973:CYS:SG	1:E:3976:ASN:ND2	2.73	0.60
1:I:3937:TYR:O	1:I:4002:LYS:NZ	2.33	0.60
1:I:4673:ARG:HH22	1:I:4698:LYS:HB2	1.66	0.60
1:G:41:GLY:O	1:G:45:ARG:NH1	2.35	0.60
1:G:1244:GLN:HB3	1:G:1646:ARG:HH12	1.65	0.60
1:I:1247:PRO:HA	1:I:1598:GLN:HA	1.83	0.60
1:B:1519:UNK:HA	1:B:1526:UNK:HA	1.84	0.60
1:E:1203:ASN:ND2	1:E:1210:SER:O	2.35	0.60
1:E:1244:GLN:HB3	1:E:1646:ARG:HH12	1.65	0.60
1:I:3993:LEU:HA	1:I:3996:PHE:HB2	1.82	0.60
1:G:1101:ARG:HE	1:G:1115:LEU:HB3	1.66	0.60
1:E:575:LEU:HD22	1:E:609:CYS:HB3	1.82	0.60
1:B:4673:ARG:HH22	1:B:4698:LYS:HB2	1.66	0.60
1:E:1808:ARG:NH1	1:E:1853:ILE:O	2.34	0.60
1:I:4821:LYS:HA	1:I:4824:ARG:HE	1.67	0.60
2:A:23:VAL:HG22	2:A:47:LYS:HG2	1.83	0.60
2:H:87:HIS:N	2:H:91:ILE:O	2.34	0.60
1:B:2338:ALA:HB1	1:B:2349:ASN:HB3	1.84	0.60
1:I:1808:ARG:NH1	1:I:1853:ILE:O	2.34	0.60
1:G:1808:ARG:NH1	1:G:1853:ILE:O	2.34	0.60
1:G:2748:PRO:HD2	1:G:2751:LEU:HD12	1.84	0.60
1:G:3762:ARG:H	1:G:4754:ASN:HA	1.67	0.60
1:G:4821:LYS:HA	1:G:4824:ARG:HE	1.67	0.60
1:B:256:ALA:HB1	1:B:286:THR:HG21	1.84	0.60
1:E:1101:ARG:HE	1:E:1115:LEU:HB3	1.66	0.60
1:I:1101:ARG:HE	1:I:1115:LEU:HB3	1.66	0.60
2:J:23:VAL:HG22	2:J:47:LYS:HG2	1.82	0.60
1:E:2338:ALA:HB1	1:E:2349:ASN:HB3	1.84	0.59
1:E:4821:LYS:HA	1:E:4824:ARG:HE	1.67	0.59
1:G:256:ALA:HB1	1:G:286:THR:HG21	1.83	0.59
1:G:1203:ASN:ND2	1:G:1210:SER:O	2.35	0.59
1:E:3762:ARG:H	1:E:4754:ASN:HA	1.67	0.59
1:I:2338:ALA:HB1	1:I:2349:ASN:HB3	1.84	0.59
1:I:4848:VAL:HG23	1:I:4883:TYR:HE1	1.66	0.59
1:G:575:LEU:HD22	1:G:609:CYS:HB3	1.83	0.59
1:B:4848:VAL:HG23	1:B:4883:TYR:HE1	1.66	0.59
1:E:1641:ILE:HG13	1:E:1643:GLU:H	1.68	0.59
1:I:41:GLY:O	1:I:45:ARG:NH1	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:90:VAL:HG12	2:F:91:ILE:HG12	1.84	0.59
1:E:41:GLY:O	1:E:45:ARG:NH1	2.35	0.59
1:E:175:SER:O	1:G:2452:ARG:NH1	2.32	0.59
1:E:718:GLY:HA3	1:E:737:LEU:HA	1.85	0.59
1:I:2359:ARG:NH1	1:G:179:TYR:OH	2.35	0.59
1:G:718:GLY:HA3	1:G:737:LEU:HA	1.84	0.59
1:G:1247:PRO:HA	1:G:1598:GLN:HA	1.83	0.59
1:G:315:CYS:SG	1:G:316:PHE:N	2.76	0.59
2:A:90:VAL:HG12	2:A:91:ILE:HG12	1.84	0.59
1:B:718:GLY:HA3	1:B:737:LEU:HA	1.84	0.59
1:E:4848:VAL:HG23	1:E:4883:TYR:HE1	1.66	0.59
1:I:19:GLU:HB2	1:I:206:CYS:HB3	1.84	0.59
1:I:315:CYS:SG	1:I:316:PHE:N	2.76	0.59
1:G:4848:VAL:HG23	1:G:4883:TYR:HE1	1.66	0.59
1:B:41:GLY:O	1:B:45:ARG:NH1	2.35	0.59
1:B:1101:ARG:HE	1:B:1115:LEU:HB3	1.66	0.59
1:B:4075:GLU:HA	1:B:4078:GLN:HB2	1.85	0.59
1:E:256:ALA:HB1	1:E:286:THR:HG21	1.83	0.59
1:I:3762:ARG:H	1:I:4754:ASN:HA	1.67	0.59
1:G:1641:ILE:HG13	1:G:1643:GLU:H	1.68	0.59
1:B:19:GLU:HB2	1:B:206:CYS:HB3	1.84	0.59
1:E:1519:UNK:HA	1:E:1526:UNK:HA	1.84	0.59
1:E:2748:PRO:HD2	1:E:2751:LEU:HD12	1.84	0.59
1:E:4075:GLU:HA	1:E:4078:GLN:HB2	1.85	0.59
1:G:2420:HIS:ND1	1:G:2493:UNK:O	2.25	0.59
1:I:2748:PRO:HD2	1:I:2751:LEU:HD12	1.84	0.58
1:E:315:CYS:SG	1:E:316:PHE:N	2.76	0.58
1:I:256:ALA:HB1	1:I:286:THR:HG21	1.83	0.58
1:I:716:PHE:HE2	1:I:759:ILE:HD11	1.68	0.58
1:G:19:GLU:HB2	1:G:206:CYS:HB3	1.84	0.58
1:G:716:PHE:HE2	1:G:759:ILE:HD11	1.68	0.58
1:B:315:CYS:SG	1:B:316:PHE:N	2.76	0.58
1:E:2871:LEU:HD22	1:E:2927:LEU:HD22	1.85	0.58
1:B:4821:LYS:HA	1:B:4824:ARG:HE	1.67	0.58
1:E:281:ARG:HG2	1:E:312:THR:HG21	1.85	0.58
1:I:718:GLY:HA3	1:I:737:LEU:HA	1.84	0.58
1:I:1641:ILE:HG13	1:I:1643:GLU:H	1.67	0.58
1:I:3805:LEU:HA	1:I:3809:ASN:HD22	1.68	0.58
1:G:2347:GLU:O	1:G:2351:ASN:N	2.37	0.58
1:G:2871:LEU:HD22	1:G:2927:LEU:HD22	1.85	0.58
1:E:265:LEU:HD12	1:E:279:PRO:HB2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:488:LEU:O	1:E:492:ASP:N	2.36	0.58
1:G:281:ARG:HG2	1:G:312:THR:HG21	1.85	0.58
1:G:2338:ALA:HB1	1:G:2349:ASN:HB3	1.84	0.58
1:B:2347:GLU:O	1:B:2351:ASN:N	2.37	0.58
1:B:2748:PRO:HD2	1:B:2751:LEU:HD12	1.84	0.58
1:B:3762:ARG:H	1:B:4754:ASN:HA	1.67	0.58
1:I:21:VAL:HG12	1:I:66:CYS:HA	1.86	0.58
1:G:21:VAL:HG12	1:G:66:CYS:HA	1.86	0.58
1:I:683:ARG:HB2	1:I:782:SER:HB3	1.86	0.58
1:E:19:GLU:HB2	1:E:206:CYS:HB3	1.84	0.58
1:I:650:VAL:HB	1:I:777:PHE:HB2	1.85	0.58
1:B:265:LEU:HD12	1:B:279:PRO:HB2	1.85	0.58
1:B:716:PHE:HE2	1:B:759:ILE:HD11	1.68	0.58
1:B:1641:ILE:HG13	1:B:1643:GLU:H	1.68	0.58
1:I:1109:LEU:HA	1:I:1120:LEU:HD21	1.86	0.58
1:I:4228:ALA:O	1:I:4232:GLU:N	2.37	0.58
1:I:4232:GLU:OE1	1:I:5019:TRP:NE1	2.37	0.58
1:I:4933:GLN:NE2	1:G:4933:GLN:OE1	2.36	0.58
1:G:4065:PHE:O	1:G:4133:GLN:NE2	2.37	0.58
1:B:4228:ALA:O	1:B:4232:GLU:N	2.36	0.58
1:I:4065:PHE:O	1:I:4133:GLN:NE2	2.37	0.58
1:G:1743:ARG:O	1:G:1964:ARG:NH2	2.37	0.58
1:B:4065:PHE:O	1:B:4133:GLN:NE2	2.37	0.57
1:E:3932:ASP:HA	1:E:3935:TRP:HD1	1.69	0.57
1:I:4075:GLU:HA	1:I:4078:GLN:HB2	1.85	0.57
1:G:3932:ASP:HA	1:G:3935:TRP:HD1	1.69	0.57
2:H:90:VAL:HG12	2:H:91:ILE:HG12	1.84	0.57
1:B:3805:LEU:HA	1:B:3809:ASN:HD22	1.68	0.57
1:E:21:VAL:HG12	1:E:66:CYS:HA	1.86	0.57
1:I:265:LEU:HD12	1:I:279:PRO:HB2	1.85	0.57
1:I:1271:ARG:HA	1:I:1471:UNK:HA	1.86	0.57
1:I:2871:LEU:HD22	1:I:2927:LEU:HD22	1.85	0.57
1:G:1109:LEU:HA	1:G:1120:LEU:HD21	1.86	0.57
1:G:4075:GLU:HA	1:G:4078:GLN:HB2	1.85	0.57
1:B:206:CYS:SG	1:B:207:SER:N	2.78	0.57
1:B:3990:VAL:HG13	1:B:4051:SER:HB2	1.87	0.57
1:E:650:VAL:HB	1:E:777:PHE:HB2	1.85	0.57
1:E:3890:LEU:HA	1:E:3893:GLU:HB2	1.86	0.57
1:G:206:CYS:SG	1:G:207:SER:N	2.78	0.57
1:G:265:LEU:HD12	1:G:279:PRO:HB2	1.85	0.57
1:G:650:VAL:HB	1:G:777:PHE:HB2	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:683:ARG:HB2	1:G:782:SER:HB3	1.86	0.57
1:B:281:ARG:HG2	1:B:312:THR:HG21	1.85	0.57
1:B:3890:LEU:HA	1:B:3893:GLU:HB2	1.86	0.57
1:E:716:PHE:HE2	1:E:759:ILE:HD11	1.68	0.57
1:I:281:ARG:HG2	1:I:312:THR:HG21	1.85	0.57
1:I:2347:GLU:O	1:I:2351:ASN:N	2.37	0.57
1:I:3932:ASP:HA	1:I:3935:TRP:HD1	1.69	0.57
1:B:683:ARG:HB2	1:B:782:SER:HB3	1.86	0.57
1:B:4182:GLU:OE2	1:B:4983:HIS:NE2	2.38	0.57
1:E:4182:GLU:OE2	1:E:4983:HIS:NE2	2.38	0.57
1:I:206:CYS:SG	1:I:207:SER:N	2.78	0.57
1:I:4182:GLU:OE2	1:I:4983:HIS:NE2	2.38	0.57
1:B:2871:LEU:HD22	1:B:2927:LEU:HD22	1.85	0.57
1:I:235:ALA:HA	1:I:257:ARG:HD3	1.86	0.57
1:I:3990:VAL:HG13	1:I:4051:SER:HB2	1.86	0.57
1:G:3805:LEU:HA	1:G:3809:ASN:HD22	1.68	0.57
1:G:3890:LEU:HA	1:G:3893:GLU:HB2	1.86	0.57
2:J:90:VAL:HG12	2:J:91:ILE:HG12	1.84	0.57
1:B:650:VAL:HB	1:B:777:PHE:HB2	1.85	0.57
1:B:1109:LEU:HA	1:B:1120:LEU:HD21	1.86	0.57
1:B:4232:GLU:OE1	1:B:5019:TRP:NE1	2.37	0.57
1:G:4232:GLU:OE1	1:G:5019:TRP:NE1	2.37	0.57
1:E:641:VAL:HG21	1:E:705:ASN:HA	1.86	0.57
1:I:4126:GLU:O	1:I:4130:ASN:ND2	2.38	0.57
1:G:4182:GLU:OE2	1:G:4983:HIS:NE2	2.38	0.57
1:B:1973:GLN:O	1:B:1977:TYR:N	2.38	0.57
1:E:4228:ALA:O	1:E:4232:GLU:N	2.36	0.57
1:E:4232:GLU:OE1	1:E:5019:TRP:NE1	2.37	0.57
1:G:475:GLN:NE2	1:G:528:SER:O	2.38	0.57
1:B:21:VAL:HG12	1:B:66:CYS:HA	1.86	0.57
1:E:4065:PHE:O	1:E:4133:GLN:NE2	2.37	0.57
1:B:488:LEU:O	1:B:492:ASP:N	2.37	0.56
1:B:1237:TRP:HH2	1:B:1652:GLU:HA	1.70	0.56
1:B:3932:ASP:HA	1:B:3935:TRP:HD1	1.69	0.56
1:B:4933:GLN:OE1	1:E:4933:GLN:NE2	2.38	0.56
1:E:475:GLN:NE2	1:E:528:SER:O	2.38	0.56
1:I:1237:TRP:HH2	1:I:1652:GLU:HA	1.70	0.56
1:B:4152:GLU:OE1	1:B:4192:ARG:NH2	2.38	0.56
1:E:683:ARG:HB2	1:E:782:SER:HB3	1.86	0.56
1:E:3805:LEU:HA	1:E:3809:ASN:HD22	1.68	0.56
1:E:4126:GLU:O	1:E:4130:ASN:ND2	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:641:VAL:HG21	1:I:705:ASN:HA	1.86	0.56
1:G:4126:GLU:O	1:G:4130:ASN:ND2	2.38	0.56
1:G:4228:ALA:O	1:G:4232:GLU:N	2.36	0.56
1:B:683:ARG:NH1	1:B:707:VAL:O	2.39	0.56
1:B:2359:ARG:NH1	1:I:179:TYR:OH	2.38	0.56
1:B:3830:GLN:HA	1:B:3833:GLN:HG2	1.88	0.56
1:B:4126:GLU:O	1:B:4130:ASN:ND2	2.38	0.56
1:E:1109:LEU:HA	1:E:1120:LEU:HD21	1.86	0.56
1:E:4152:GLU:OE1	1:E:4192:ARG:NH2	2.38	0.56
1:I:475:GLN:NE2	1:I:528:SER:O	2.38	0.56
1:I:3830:GLN:HA	1:I:3833:GLN:HG2	1.88	0.56
1:I:4152:GLU:OE1	1:I:4192:ARG:NH2	2.38	0.56
1:G:20:VAL:HG12	1:G:204:PRO:HA	1.87	0.56
1:G:235:ALA:HA	1:G:257:ARG:HD3	1.86	0.56
1:B:257:ARG:O	1:B:284:HIS:NE2	2.37	0.56
1:E:1743:ARG:O	1:E:1964:ARG:NH2	2.37	0.56
1:E:3971:GLY:H	1:E:5005:GLY:HA3	1.71	0.56
1:E:3990:VAL:HG13	1:E:4051:SER:HB2	1.87	0.56
1:G:744:VAL:HG22	1:G:759:ILE:HG12	1.88	0.56
1:G:2003:GLN:O	1:G:2007:ASN:ND2	2.38	0.56
2:A:27:THR:HB	2:A:100:ASP:HB3	1.87	0.56
1:B:972:LEU:O	1:B:1044:ARG:NH2	2.39	0.56
1:E:2003:GLN:O	1:E:2007:ASN:ND2	2.39	0.56
1:I:683:ARG:NH1	1:I:707:VAL:O	2.38	0.56
1:I:1743:ARG:O	1:I:1964:ARG:NH2	2.37	0.56
1:I:4581:LYS:HB2	1:I:4632:LEU:HB2	1.88	0.56
1:G:4152:GLU:OE1	1:G:4192:ARG:NH2	2.38	0.56
1:B:641:VAL:HG21	1:B:705:ASN:HA	1.86	0.56
1:I:2003:GLN:O	1:I:2007:ASN:ND2	2.38	0.56
1:I:2368:LEU:HB2	1:I:2376:LEU:HD23	1.87	0.56
1:G:972:LEU:O	1:G:1044:ARG:NH2	2.39	0.56
1:G:1237:TRP:HH2	1:G:1652:GLU:HA	1.70	0.56
1:G:1973:GLN:O	1:G:1977:TYR:N	2.38	0.56
1:B:744:VAL:HG22	1:B:759:ILE:HG12	1.88	0.56
1:B:2003:GLN:O	1:B:2007:ASN:ND2	2.38	0.56
1:E:20:VAL:HG12	1:E:204:PRO:HA	1.87	0.56
1:E:683:ARG:HG2	1:E:717:ASP:HB3	1.88	0.56
1:E:1973:GLN:O	1:E:1977:TYR:N	2.38	0.56
1:G:1965:TYR:HA	1:G:1968:LYS:HE3	1.88	0.56
1:G:3830:GLN:HA	1:G:3833:GLN:HG2	1.88	0.56
2:J:27:THR:HB	2:J:100:ASP:HB3	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2104:ARG:HA	1:B:2107:GLN:HB3	1.88	0.56
1:B:4581:LYS:HB2	1:B:4632:LEU:HB2	1.88	0.56
1:E:1237:TRP:HH2	1:E:1652:GLU:HA	1.70	0.56
1:E:3830:GLN:HA	1:E:3833:GLN:HG2	1.88	0.56
1:G:683:ARG:HG2	1:G:717:ASP:HB3	1.88	0.56
1:B:235:ALA:HA	1:B:257:ARG:HD3	1.86	0.56
1:B:3971:GLY:H	1:B:5005:GLY:HA3	1.71	0.56
1:G:2235:PHE:HA	1:G:2238:TYR:HD2	1.71	0.56
2:H:27:THR:HB	2:H:100:ASP:HB3	1.87	0.56
1:B:683:ARG:HG2	1:B:717:ASP:HB3	1.88	0.55
1:B:1965:TYR:HA	1:B:1968:LYS:HE3	1.88	0.55
1:E:2104:ARG:HA	1:E:2107:GLN:HB3	1.88	0.55
1:E:2235:PHE:HA	1:E:2238:TYR:HD2	1.71	0.55
1:I:3890:LEU:HA	1:I:3893:GLU:HB2	1.86	0.55
1:E:2368:LEU:HB2	1:E:2376:LEU:HD23	1.88	0.55
1:I:1973:GLN:O	1:I:1977:TYR:N	2.38	0.55
1:G:3990:VAL:HG13	1:G:4051:SER:HB2	1.87	0.55
1:E:4998:LYS:NZ	1:E:5007:GLU:OE1	2.39	0.55
1:I:683:ARG:HG2	1:I:717:ASP:HB3	1.88	0.55
1:G:2104:ARG:HA	1:G:2107:GLN:HB3	1.88	0.55
1:B:1271:ARG:HA	1:B:1471:UNK:HA	1.88	0.55
1:B:1743:ARG:O	1:B:1964:ARG:NH2	2.37	0.55
1:E:206:CYS:SG	1:E:207:SER:N	2.78	0.55
1:E:235:ALA:HA	1:E:257:ARG:HD3	1.86	0.55
1:I:972:LEU:O	1:I:1044:ARG:NH2	2.39	0.55
1:G:257:ARG:O	1:G:284:HIS:NE2	2.37	0.55
1:G:695:TYR:OH	1:G:1073:ARG:NH1	2.39	0.55
1:E:257:ARG:O	1:E:284:HIS:NE2	2.37	0.55
1:E:683:ARG:NH1	1:E:707:VAL:O	2.38	0.55
1:I:887:ILE:HG21	1:I:959:TYR:HA	1.88	0.55
1:E:709:ASP:O	1:E:725:HIS:ND1	2.40	0.55
1:E:972:LEU:O	1:E:1044:ARG:NH2	2.39	0.55
1:I:20:VAL:HG12	1:I:204:PRO:HA	1.87	0.55
1:I:1232:ARG:HD2	1:I:1702:HIS:HB3	1.89	0.55
1:G:641:VAL:HG21	1:G:705:ASN:HA	1.86	0.55
1:B:709:ASP:O	1:B:725:HIS:ND1	2.40	0.55
1:B:2235:PHE:HA	1:B:2238:TYR:HD2	1.71	0.55
1:B:2368:LEU:HB2	1:B:2376:LEU:HD23	1.88	0.55
1:E:744:VAL:HG22	1:E:759:ILE:HG12	1.88	0.55
1:I:709:ASP:O	1:I:725:HIS:ND1	2.40	0.55
1:G:4581:LYS:HB2	1:G:4632:LEU:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:695:TYR:OH	1:E:1073:ARG:NH1	2.39	0.55
1:E:2803:GLU:OE2	1:E:2806:ARG:NH1	2.40	0.55
1:I:695:TYR:OH	1:I:1073:ARG:NH1	2.39	0.55
1:G:3971:GLY:H	1:G:5005:GLY:HA3	1.71	0.55
1:E:580:GLU:HG3	1:E:620:LEU:HD22	1.88	0.55
1:I:1965:TYR:HA	1:I:1968:LYS:HE3	1.88	0.55
1:I:2235:PHE:HA	1:I:2238:TYR:HD2	1.71	0.55
1:G:4998:LYS:NZ	1:G:5007:GLU:OE1	2.39	0.55
2:F:27:THR:HB	2:F:100:ASP:HB3	1.87	0.55
1:B:20:VAL:HG12	1:B:204:PRO:HA	1.87	0.55
1:B:887:ILE:HG21	1:B:959:TYR:HA	1.88	0.55
1:B:1659:LEU:O	1:B:1663:HIS:N	2.37	0.55
1:B:2042:CYS:SG	1:B:2043:GLY:N	2.80	0.55
1:B:4125:PHE:HA	1:B:4128:PHE:HB3	1.89	0.55
1:E:1965:TYR:HA	1:E:1968:LYS:HE3	1.88	0.55
1:E:2347:GLU:O	1:E:2351:ASN:N	2.37	0.55
1:I:1659:LEU:O	1:I:1663:HIS:N	2.37	0.55
1:I:2104:ARG:HA	1:I:2107:GLN:HB3	1.88	0.55
1:G:4229:GLU:HA	1:G:4232:GLU:HB3	1.89	0.55
1:B:580:GLU:HG3	1:B:620:LEU:HD22	1.88	0.54
1:G:887:ILE:HG21	1:G:959:TYR:HA	1.88	0.54
1:G:1970:GLN:NE2	1:G:3646:THR:OG1	2.40	0.54
1:G:2803:GLU:OE2	1:G:2806:ARG:NH1	2.40	0.54
1:E:887:ILE:HG21	1:E:959:TYR:HA	1.89	0.54
1:E:1232:ARG:HD2	1:E:1702:HIS:HB3	1.89	0.54
1:E:2758:PHE:O	1:E:2762:THR:N	2.39	0.54
1:G:55:ALA:O	1:G:281:ARG:NH1	2.35	0.54
1:G:2368:LEU:HB2	1:G:2376:LEU:HD23	1.88	0.54
1:B:1232:ARG:HD2	1:B:1702:HIS:HB3	1.89	0.54
1:E:2042:CYS:SG	1:E:2043:GLY:N	2.80	0.54
1:E:4581:LYS:HB2	1:E:4632:LEU:HB2	1.88	0.54
1:I:3762:ARG:HG2	1:I:4756:ARG:HA	1.88	0.54
1:I:3971:GLY:H	1:I:5005:GLY:HA3	1.71	0.54
1:I:4125:PHE:HA	1:I:4128:PHE:HB3	1.89	0.54
1:I:4229:GLU:HA	1:I:4232:GLU:HB3	1.89	0.54
1:B:469:ARG:HH21	1:B:3712:GLU:HB3	1.72	0.54
1:E:18:ASP:H	1:E:69:LEU:HB2	1.73	0.54
1:E:1970:GLN:NE2	1:E:3646:THR:OG1	2.40	0.54
1:I:744:VAL:HG22	1:I:759:ILE:HG12	1.88	0.54
1:G:469:ARG:HH21	1:G:3712:GLU:HB3	1.72	0.54
1:G:3762:ARG:HG2	1:G:4756:ARG:HA	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:293:LEU:HB2	1:B:378:LEU:HD12	1.90	0.54
1:B:475:GLN:NE2	1:B:528:SER:O	2.38	0.54
1:B:2803:GLU:OE2	1:B:2806:ARG:NH1	2.40	0.54
1:B:4998:LYS:NZ	1:B:5007:GLU:OE1	2.39	0.54
1:G:683:ARG:NH1	1:G:707:VAL:O	2.38	0.54
1:G:2042:CYS:SG	1:G:2043:GLY:N	2.80	0.54
1:I:463:GLU:OE2	1:I:467:LYS:NZ	2.41	0.54
1:I:2318:TYR:OH	1:I:2414:ASN:N	2.41	0.54
1:G:463:GLU:OE2	1:G:467:LYS:NZ	2.41	0.54
1:B:695:TYR:OH	1:B:1073:ARG:NH1	2.39	0.54
1:B:1812:LEU:HD21	1:B:1861:GLN:HG2	1.90	0.54
1:E:293:LEU:HB2	1:E:378:LEU:HD12	1.90	0.54
1:E:469:ARG:HH21	1:E:3712:GLU:HB3	1.73	0.54
1:I:580:GLU:HG3	1:I:620:LEU:HD22	1.88	0.54
1:I:1970:GLN:NE2	1:I:3646:THR:OG1	2.40	0.54
1:G:2318:TYR:OH	1:G:2414:ASN:N	2.41	0.54
1:E:1812:LEU:HD21	1:E:1861:GLN:HG2	1.90	0.54
1:E:4885:PHE:HE2	1:E:4901:ILE:HD11	1.73	0.54
1:I:469:ARG:HH21	1:I:3712:GLU:HB3	1.72	0.54
1:G:1865:MET:HB3	1:G:1926:LEU:HB2	1.90	0.54
1:E:3762:ARG:HG2	1:E:4756:ARG:HA	1.88	0.54
1:I:293:LEU:HB2	1:I:378:LEU:HD12	1.90	0.54
1:G:580:GLU:HG3	1:G:620:LEU:HD22	1.88	0.54
1:E:776:LEU:HG	1:E:848:HIS:HA	1.90	0.54
1:E:4125:PHE:HA	1:E:4128:PHE:HB3	1.90	0.54
1:E:4229:GLU:HA	1:E:4232:GLU:HB3	1.89	0.54
1:I:1812:LEU:HD21	1:I:1861:GLN:HG2	1.90	0.54
1:I:3752:SER:O	1:I:3756:LYS:N	2.38	0.54
1:G:709:ASP:O	1:G:725:HIS:ND1	2.40	0.54
1:B:776:LEU:HG	1:B:848:HIS:HA	1.90	0.53
1:B:1679:ASN:ND2	1:B:1798:LEU:O	2.41	0.53
1:B:1865:MET:HB3	1:B:1926:LEU:HB2	1.90	0.53
1:B:2770:LYS:HB3	1:B:2775:TRP:HB2	1.90	0.53
1:B:4229:GLU:HA	1:B:4232:GLU:HB3	1.89	0.53
1:I:2803:GLU:OE2	1:I:2806:ARG:NH1	2.40	0.53
1:G:293:LEU:HB2	1:G:378:LEU:HD12	1.90	0.53
1:G:4125:PHE:HA	1:G:4128:PHE:HB3	1.89	0.53
1:I:488:LEU:O	1:I:492:ASP:N	2.36	0.53
1:I:776:LEU:HG	1:I:848:HIS:HA	1.90	0.53
1:I:2042:CYS:SG	1:I:2043:GLY:N	2.80	0.53
1:G:18:ASP:HB2	1:G:69:LEU:HD12	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2770:LYS:HB3	1:G:2775:TRP:HB2	1.90	0.53
1:B:1841:VAL:HA	1:B:1844:LEU:HB3	1.91	0.53
1:B:1970:GLN:NE2	1:B:3646:THR:OG1	2.40	0.53
1:B:4885:PHE:HE2	1:B:4901:ILE:HD11	1.73	0.53
1:E:1679:ASN:ND2	1:E:1798:LEU:O	2.41	0.53
1:I:1865:MET:HB3	1:I:1926:LEU:HB2	1.90	0.53
1:I:2927:LEU:HD23	1:I:2930:LEU:HD12	1.90	0.53
1:G:18:ASP:H	1:G:69:LEU:HB2	1.73	0.53
1:B:2318:TYR:OH	1:B:2414:ASN:N	2.41	0.53
1:E:2770:LYS:HB3	1:E:2775:TRP:HB2	1.91	0.53
1:I:1841:VAL:HA	1:I:1844:LEU:HB3	1.91	0.53
1:I:2770:LYS:HB3	1:I:2775:TRP:HB2	1.91	0.53
1:G:776:LEU:HG	1:G:848:HIS:HA	1.90	0.53
1:G:1679:ASN:ND2	1:G:1798:LEU:O	2.41	0.53
1:G:1778:SER:N	1:G:1799:SER:O	2.41	0.53
1:B:463:GLU:OE2	1:B:467:LYS:NZ	2.41	0.53
1:E:463:GLU:OE2	1:E:467:LYS:NZ	2.41	0.53
1:E:1841:VAL:HA	1:E:1844:LEU:HB3	1.91	0.53
1:G:1841:VAL:HA	1:G:1844:LEU:HB3	1.91	0.53
1:E:1865:MET:HB3	1:E:1926:LEU:HB2	1.90	0.53
1:I:485:SER:O	1:I:489:ASN:N	2.41	0.53
1:I:4763:GLY:O	1:I:4766:THR:OG1	2.24	0.53
1:G:241:GLN:O	1:G:289:ARG:NH1	2.37	0.53
1:G:1812:LEU:HD21	1:G:1861:GLN:HG2	1.90	0.53
1:B:3762:ARG:HG2	1:B:4756:ARG:HA	1.88	0.53
1:B:4687:TYR:OH	1:B:4699:GLY:O	2.26	0.53
1:E:168:ASP:HB3	1:E:199:LEU:HD22	1.91	0.53
1:I:426:ARG:HB2	1:I:506:TYR:HA	1.90	0.53
1:G:168:ASP:HB3	1:G:199:LEU:HD22	1.91	0.53
1:G:4885:PHE:HE2	1:G:4901:ILE:HD11	1.73	0.53
1:B:18:ASP:H	1:B:69:LEU:HB2	1.73	0.53
1:B:1778:SER:N	1:B:1799:SER:O	2.41	0.53
1:I:1679:ASN:ND2	1:I:1798:LEU:O	2.41	0.53
1:I:4138:ASP:O	1:I:4142:ASN:ND2	2.42	0.53
1:G:1232:ARG:HD2	1:G:1702:HIS:HB3	1.89	0.53
1:G:4138:ASP:O	1:G:4142:ASN:ND2	2.42	0.53
1:B:426:ARG:HB2	1:B:506:TYR:HA	1.91	0.53
1:E:1727:ARG:HH12	1:E:1772:ARG:HB3	1.74	0.53
1:E:2318:TYR:OH	1:E:2414:ASN:N	2.41	0.53
1:G:485:SER:O	1:G:489:ASN:N	2.41	0.53
1:G:1931:LEU:HB3	1:G:1935:VAL:HB	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4746:ALA:O	1:G:4750:ILE:N	2.42	0.53
1:B:488:LEU:HA	1:B:491:ILE:HB	1.91	0.53
1:B:621:ILE:O	1:B:625:LEU:N	2.38	0.53
1:E:4138:ASP:O	1:E:4142:ASN:ND2	2.42	0.53
1:I:257:ARG:O	1:I:284:HIS:NE2	2.37	0.53
1:I:4746:ALA:O	1:I:4750:ILE:N	2.42	0.53
1:G:4687:TYR:OH	1:G:4699:GLY:O	2.26	0.53
1:B:168:ASP:HB3	1:B:199:LEU:HD22	1.91	0.52
1:E:18:ASP:HB2	1:E:69:LEU:HD12	1.90	0.52
1:E:978:THR:HB	1:E:980:ALA:H	1.74	0.52
1:I:1931:LEU:HB3	1:I:1935:VAL:HB	1.91	0.52
1:B:647:ASN:ND2	1:B:820:ARG:O	2.42	0.52
1:B:1931:LEU:HB3	1:B:1935:VAL:HB	1.91	0.52
1:B:4172:GLU:HA	1:B:4175:ARG:HE	1.74	0.52
1:I:18:ASP:H	1:I:69:LEU:HB2	1.73	0.52
1:I:360:ALA:N	1:I:375:LYS:O	2.38	0.52
1:I:1152:MET:HB2	1:I:1161:ILE:HB	1.91	0.52
1:I:4687:TYR:OH	1:I:4699:GLY:O	2.26	0.52
1:G:2927:LEU:HD23	1:G:2930:LEU:HD12	1.90	0.52
1:B:1727:ARG:HH12	1:B:1772:ARG:HB3	1.74	0.52
1:E:1931:LEU:HB3	1:E:1935:VAL:HB	1.91	0.52
1:E:4172:GLU:HA	1:E:4175:ARG:HE	1.74	0.52
1:E:4687:TYR:OH	1:E:4699:GLY:O	2.26	0.52
1:I:168:ASP:HB3	1:I:199:LEU:HD22	1.91	0.52
1:G:4928:LEU:HA	1:G:4931:ILE:HD12	1.91	0.52
1:I:3832:ILE:O	1:I:3836:MET:N	2.42	0.52
1:I:4681:LEU:HD21	1:I:4687:TYR:HD2	1.75	0.52
1:I:4928:LEU:HA	1:I:4931:ILE:HD12	1.91	0.52
1:B:18:ASP:HB2	1:B:69:LEU:HD12	1.90	0.52
1:B:1764:GLY:HA3	1:B:1859:VAL:HG11	1.91	0.52
1:B:4928:LEU:HA	1:B:4931:ILE:HD12	1.91	0.52
1:I:4822:THR:OG1	1:G:4839:MET:SD	2.63	0.52
1:G:1764:GLY:HA3	1:G:1859:VAL:HG11	1.91	0.52
1:G:2758:PHE:O	1:G:2762:THR:N	2.39	0.52
1:E:360:ALA:N	1:E:375:LYS:O	2.38	0.52
1:I:488:LEU:HA	1:I:491:ILE:HB	1.91	0.52
1:I:4957:LYS:HG2	1:I:4964:GLY:HA2	1.92	0.52
1:G:4172:GLU:HA	1:G:4175:ARG:HE	1.74	0.52
1:B:395:GLN:NE2	1:B:397:GLU:OE1	2.43	0.52
1:E:1764:GLY:HA3	1:E:1859:VAL:HG11	1.91	0.52
1:I:1764:GLY:HA3	1:I:1859:VAL:HG11	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4957:LYS:HG2	1:G:4964:GLY:HA2	1.92	0.52
1:B:45:ARG:NH2	1:B:447:ASP:OD1	2.37	0.52
1:B:2927:LEU:HD23	1:B:2930:LEU:HD12	1.90	0.52
1:B:4681:LEU:HD21	1:B:4687:TYR:HD2	1.75	0.52
1:B:4957:LYS:HG2	1:B:4964:GLY:HA2	1.92	0.52
1:E:2927:LEU:HD23	1:E:2930:LEU:HD12	1.90	0.52
1:E:4957:LYS:HG2	1:E:4964:GLY:HA2	1.92	0.52
1:I:1727:ARG:HH12	1:I:1772:ARG:HB3	1.74	0.52
1:I:4069:LYS:HB2	1:I:4133:GLN:HG3	1.92	0.52
1:G:426:ARG:HB2	1:G:506:TYR:HA	1.90	0.52
1:G:1152:MET:HB2	1:G:1161:ILE:HB	1.91	0.52
1:G:3752:SER:O	1:G:3756:LYS:N	2.38	0.52
1:G:4005:GLN:HE21	1:G:4110:PHE:HE1	1.57	0.52
1:B:40:GLU:HB3	1:B:44:ASN:HB3	1.92	0.52
1:B:877:ASN:HD22	1:B:1045:THR:HG23	1.75	0.52
1:B:978:THR:HB	1:B:980:ALA:H	1.75	0.52
1:B:1978:ALA:O	1:B:1983:ALA:N	2.40	0.52
1:B:2002:PRO:HA	1:B:2005:GLN:HB3	1.92	0.52
1:E:485:SER:O	1:E:489:ASN:N	2.41	0.52
1:I:395:GLN:NE2	1:I:397:GLU:OE1	2.43	0.52
1:G:488:LEU:HA	1:G:491:ILE:HB	1.91	0.52
1:G:1727:ARG:HH12	1:G:1772:ARG:HB3	1.74	0.52
1:G:4572:ALA:HA	1:G:4575:PHE:HB3	1.92	0.52
1:B:457:GLU:OE1	1:B:464:LYS:NZ	2.40	0.52
1:E:184:THR:HA	1:E:189:LEU:HA	1.92	0.52
1:E:426:ARG:HB2	1:E:506:TYR:HA	1.91	0.52
1:E:4681:LEU:HD21	1:E:4687:TYR:HD2	1.75	0.52
1:I:40:GLU:HB3	1:I:44:ASN:HB3	1.92	0.52
1:I:1713:ASP:O	1:I:1717:SER:N	2.39	0.52
1:I:4998:LYS:NZ	1:I:5007:GLU:OE1	2.39	0.52
1:G:45:ARG:NH2	1:G:447:ASP:OD1	2.37	0.52
1:B:55:ALA:O	1:B:281:ARG:NH1	2.35	0.51
1:B:4069:LYS:HB2	1:B:4133:GLN:HG3	1.92	0.51
1:B:4763:GLY:O	1:B:4766:THR:OG1	2.24	0.51
1:E:1659:LEU:O	1:E:1663:HIS:N	2.37	0.51
1:E:4069:LYS:HB2	1:E:4133:GLN:HG3	1.92	0.51
1:I:18:ASP:HB2	1:I:69:LEU:HD12	1.90	0.51
1:I:978:THR:HB	1:I:980:ALA:H	1.75	0.51
1:I:4885:PHE:HE2	1:I:4901:ILE:HD11	1.73	0.51
1:G:719:LEU:HD22	1:G:735:GLN:HG2	1.92	0.51
1:B:629:ARG:HB3	1:B:634:GLN:HE21	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1970:GLN:HA	1:B:3641:LEU:HG	1.92	0.51
1:B:3898:ASP:O	1:B:3902:TYR:N	2.43	0.51
1:B:4138:ASP:O	1:B:4142:ASN:ND2	2.42	0.51
1:B:4697:VAL:O	1:B:4701:TRP:N	2.42	0.51
1:E:488:LEU:HA	1:E:491:ILE:HB	1.91	0.51
1:E:647:ASN:ND2	1:E:820:ARG:O	2.42	0.51
1:E:877:ASN:HD22	1:E:1045:THR:HG23	1.75	0.51
1:E:1978:ALA:O	1:E:1983:ALA:N	2.40	0.51
1:E:4062:PHE:HA	1:E:4132:PHE:HZ	1.76	0.51
1:I:4572:ALA:HA	1:I:4575:PHE:HB3	1.92	0.51
1:G:978:THR:HB	1:G:980:ALA:H	1.75	0.51
1:G:4095:LYS:O	1:G:4099:SER:N	2.43	0.51
1:B:2116:LEU:O	1:B:2120:MET:N	2.43	0.51
1:I:719:LEU:HD22	1:I:735:GLN:HG2	1.92	0.51
1:I:3898:ASP:O	1:I:3902:TYR:N	2.43	0.51
1:G:184:THR:HA	1:G:189:LEU:HA	1.93	0.51
1:G:221:ARG:NE	1:G:258:SER:OG	2.44	0.51
1:G:1970:GLN:HA	1:G:3641:LEU:HG	1.92	0.51
1:G:3885:PHE:O	1:G:3889:GLN:N	2.41	0.51
1:B:3885:PHE:O	1:B:3889:GLN:N	2.41	0.51
1:B:4107:GLU:O	1:B:4111:LEU:N	2.40	0.51
1:E:1694:LEU:O	1:E:1712:TYR:OH	2.22	0.51
1:I:4095:LYS:O	1:I:4099:SER:N	2.43	0.51
1:G:4069:LYS:HB2	1:G:4133:GLN:HG3	1.92	0.51
1:B:184:THR:HA	1:B:189:LEU:HA	1.93	0.51
1:E:3927:GLN:O	1:E:3931:SER:N	2.42	0.51
1:I:629:ARG:O	1:I:634:GLN:NE2	2.44	0.51
1:I:3840:SER:OG	1:I:3875:MET:O	2.26	0.51
1:G:457:GLU:OE1	1:G:464:LYS:NZ	2.40	0.51
1:G:1659:LEU:O	1:G:1663:HIS:N	2.37	0.51
1:G:3927:GLN:O	1:G:3931:SER:N	2.42	0.51
1:B:1152:MET:HB2	1:B:1161:ILE:HB	1.91	0.51
1:I:1089:TYR:N	1:I:1224:GLU:O	2.41	0.51
1:I:1111:PRO:HD3	1:I:1605:TRP:HE1	1.76	0.51
1:I:4172:GLU:HA	1:I:4175:ARG:HE	1.74	0.51
1:G:989:ALA:O	1:G:1035:ASN:ND2	2.44	0.51
1:B:3832:ILE:O	1:B:3836:MET:N	2.42	0.51
1:E:4857:ASN:HB2	1:G:4807:PHE:HZ	1.74	0.51
1:E:4928:LEU:HA	1:E:4931:ILE:HD12	1.91	0.51
1:I:877:ASN:HD22	1:I:1045:THR:HG23	1.75	0.51
1:I:1970:GLN:HA	1:I:3641:LEU:HG	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:488:LEU:O	1:G:492:ASP:N	2.36	0.51
1:G:621:ILE:O	1:G:625:LEU:N	2.38	0.51
1:G:877:ASN:HD22	1:G:1045:THR:HG23	1.75	0.51
1:G:1111:PRO:HD3	1:G:1605:TRP:HE1	1.76	0.51
1:B:2758:PHE:O	1:B:2762:THR:N	2.39	0.51
1:B:4572:ALA:HA	1:B:4575:PHE:HB3	1.91	0.51
1:E:1152:MET:HB2	1:E:1161:ILE:HB	1.91	0.51
1:E:3898:ASP:O	1:E:3902:TYR:N	2.43	0.51
1:I:1778:SER:N	1:I:1799:SER:O	2.42	0.51
1:I:2272:PRO:HA	1:I:2275:VAL:HG12	1.93	0.51
1:G:3832:ILE:O	1:G:3836:MET:N	2.42	0.51
1:I:173:SER:OG	1:I:174:VAL:N	2.44	0.51
1:I:184:THR:HA	1:I:189:LEU:HA	1.93	0.51
1:B:4095:LYS:O	1:B:4099:SER:N	2.44	0.51
1:E:719:LEU:HD22	1:E:735:GLN:HG2	1.92	0.51
1:E:793:LEU:HG	1:E:1625:GLY:HA2	1.93	0.51
1:E:1970:GLN:HA	1:E:3641:LEU:HG	1.92	0.51
1:E:2326:CYS:SG	1:E:2327:GLY:N	2.84	0.51
1:E:4572:ALA:HA	1:E:4575:PHE:HB3	1.92	0.51
1:I:629:ARG:HB3	1:I:634:GLN:HE21	1.76	0.51
1:I:2002:PRO:HA	1:I:2005:GLN:HB3	1.92	0.51
1:I:4081:VAL:HB	1:I:4088:ILE:HD12	1.92	0.51
1:G:4081:VAL:HB	1:G:4088:ILE:HD12	1.92	0.51
1:G:5012:LYS:O	1:G:5016:GLU:N	2.42	0.51
1:B:2326:CYS:SG	1:B:2327:GLY:N	2.84	0.50
1:E:395:GLN:NE2	1:E:397:GLU:OE1	2.43	0.50
1:E:1032:LYS:O	1:E:1036:ARG:N	2.39	0.50
1:I:4005:GLN:HE21	1:I:4110:PHE:HE1	1.57	0.50
1:G:629:ARG:O	1:G:634:GLN:NE2	2.44	0.50
1:G:2272:PRO:HA	1:G:2275:VAL:HG12	1.93	0.50
1:B:629:ARG:O	1:B:634:GLN:NE2	2.44	0.50
1:B:864:PRO:HD2	1:B:867:LEU:HD12	1.93	0.50
1:E:173:SER:OG	1:E:174:VAL:N	2.44	0.50
1:E:629:ARG:HB3	1:E:634:GLN:HE21	1.75	0.50
1:I:45:ARG:NH2	1:I:447:ASP:OD1	2.37	0.50
1:G:2002:PRO:HA	1:G:2005:GLN:HB3	1.92	0.50
1:G:4062:PHE:HA	1:G:4132:PHE:HZ	1.76	0.50
1:B:2272:PRO:HA	1:B:2275:VAL:HG12	1.93	0.50
1:E:3885:PHE:O	1:E:3889:GLN:N	2.41	0.50
1:E:4937:ILE:O	1:E:4941:GLY:N	2.41	0.50
1:I:2326:CYS:SG	1:I:2327:GLY:N	2.84	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:4820:VAL:HB	1:I:4823:LEU:HD23	1.94	0.50
1:G:4681:LEU:HD21	1:G:4687:TYR:HD2	1.75	0.50
1:G:4820:VAL:HB	1:G:4823:LEU:HD23	1.94	0.50
1:B:221:ARG:NE	1:B:258:SER:OG	2.44	0.50
1:B:1111:PRO:HD3	1:B:1605:TRP:HE1	1.76	0.50
1:B:4860:ARG:HG3	1:B:4876:CYS:HB3	1.94	0.50
1:E:40:GLU:HB3	1:E:44:ASN:HB3	1.92	0.50
1:E:989:ALA:O	1:E:1035:ASN:ND2	2.44	0.50
1:E:2002:PRO:HA	1:E:2005:GLN:HB3	1.92	0.50
1:E:4024:VAL:HG23	1:E:4027:LEU:HD12	1.94	0.50
1:E:4820:VAL:HB	1:E:4823:LEU:HD23	1.94	0.50
1:I:221:ARG:NE	1:I:258:SER:OG	2.44	0.50
1:I:989:ALA:O	1:I:1035:ASN:ND2	2.44	0.50
1:I:4062:PHE:HA	1:I:4132:PHE:HZ	1.76	0.50
1:G:40:GLU:HB3	1:G:44:ASN:HB3	1.92	0.50
1:G:245:VAL:HG21	1:G:299:LEU:HG	1.93	0.50
1:G:629:ARG:HB3	1:G:634:GLN:HE21	1.75	0.50
1:G:685:GLY:N	1:G:780:VAL:O	2.35	0.50
1:G:793:LEU:HG	1:G:1625:GLY:HA2	1.93	0.50
1:G:864:PRO:HD2	1:G:867:LEU:HD12	1.93	0.50
1:G:3840:SER:OG	1:G:3875:MET:O	2.26	0.50
1:B:4824:ARG:HA	1:B:4827:LEU:HB2	1.94	0.50
1:E:4005:GLN:HE21	1:E:4110:PHE:HE1	1.57	0.50
1:E:4081:VAL:HB	1:E:4088:ILE:HD12	1.92	0.50
1:E:4152:GLU:OE1	1:E:4194:TYR:OH	2.29	0.50
1:E:4860:ARG:HG3	1:E:4876:CYS:HB3	1.94	0.50
1:I:1163:THR:HA	1:I:1168:VAL:HA	1.94	0.50
1:G:647:ASN:ND2	1:G:820:ARG:O	2.42	0.50
1:G:2326:CYS:SG	1:G:2327:GLY:N	2.84	0.50
1:E:4651:THR:HA	1:E:4799:SER:HB3	1.92	0.50
1:I:4169:SER:O	1:I:4173:TYR:N	2.45	0.50
1:G:173:SER:OG	1:G:174:VAL:N	2.44	0.50
1:G:596:ASN:HB3	1:G:599:VAL:HG22	1.94	0.50
1:G:736:HIS:HB3	2:H:8:SER:H	1.77	0.50
1:G:2116:LEU:O	1:G:2120:MET:N	2.43	0.50
1:G:3898:ASP:O	1:G:3902:TYR:N	2.43	0.50
1:B:245:VAL:HG21	1:B:299:LEU:HG	1.93	0.50
1:B:596:ASN:HB3	1:B:599:VAL:HG22	1.94	0.50
1:B:1931:LEU:HD22	1:B:1935:VAL:HG11	1.94	0.50
1:B:4005:GLN:HE21	1:B:4110:PHE:HE1	1.57	0.50
1:B:4081:VAL:HB	1:B:4088:ILE:HD12	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4169:SER:O	1:B:4173:TYR:N	2.45	0.50
1:B:4820:VAL:HB	1:B:4823:LEU:HD23	1.94	0.50
1:E:221:ARG:NE	1:E:258:SER:OG	2.44	0.50
1:E:621:ILE:O	1:E:625:LEU:N	2.39	0.50
1:E:2116:LEU:O	1:E:2120:MET:N	2.43	0.50
1:E:4746:ALA:O	1:E:4750:ILE:N	2.42	0.50
1:G:3781:GLN:O	1:G:3785:ALA:N	2.45	0.50
1:G:4860:ARG:HG3	1:G:4876:CYS:HB3	1.94	0.50
1:B:932:LEU:HD23	1:B:935:LEU:HD12	1.94	0.50
1:B:2823:ILE:HG12	1:B:2937:VAL:HG22	1.94	0.50
1:B:3927:GLN:O	1:B:3931:SER:N	2.42	0.50
1:E:269:TRP:HB3	1:E:272:SER:HB3	1.94	0.50
1:E:629:ARG:O	1:E:634:GLN:NE2	2.44	0.50
1:E:2457:LEU:HD23	1:E:2460:LEU:HD12	1.94	0.50
1:E:4697:VAL:O	1:E:4701:TRP:N	2.42	0.50
1:I:551:LEU:HD21	1:I:589:LEU:HB2	1.94	0.50
1:I:596:ASN:HB3	1:I:599:VAL:HG22	1.94	0.50
1:I:3676:ASP:N	1:I:3676:ASP:OD1	2.45	0.50
1:G:4824:ARG:HA	1:G:4827:LEU:HB2	1.94	0.50
1:B:4822:THR:O	1:B:4825:THR:OG1	2.29	0.50
1:E:1778:SER:N	1:E:1799:SER:O	2.41	0.50
1:E:2272:PRO:HA	1:E:2275:VAL:HG12	1.93	0.50
1:I:793:LEU:HG	1:I:1625:GLY:HA2	1.93	0.50
1:I:1721:GLU:OE2	1:I:1725:ARG:NH2	2.39	0.50
1:G:1978:ALA:O	1:G:1983:ALA:N	2.40	0.50
1:B:173:SER:OG	1:B:174:VAL:N	2.44	0.49
1:B:1032:LYS:O	1:B:1036:ARG:N	2.39	0.49
1:B:3676:ASP:OD1	1:B:3676:ASP:N	2.45	0.49
1:B:4024:VAL:HG23	1:B:4027:LEU:HD12	1.94	0.49
1:E:448:LEU:HA	1:E:451:TYR:HB3	1.94	0.49
1:E:864:PRO:HD2	1:E:867:LEU:HD12	1.93	0.49
1:I:1931:LEU:HD22	1:I:1935:VAL:HG11	1.94	0.49
1:I:2342:ASN:OD1	1:I:2342:ASN:N	2.45	0.49
1:I:4651:THR:HA	1:I:4799:SER:HB3	1.93	0.49
1:G:1032:LYS:O	1:G:1036:ARG:N	2.39	0.49
1:G:2868:SER:O	1:G:2872:GLN:N	2.45	0.49
1:G:4169:SER:O	1:G:4173:TYR:N	2.45	0.49
1:B:719:LEU:HD22	1:B:735:GLN:HG2	1.92	0.49
1:B:793:LEU:HG	1:B:1625:GLY:HA2	1.93	0.49
1:B:989:ALA:O	1:B:1035:ASN:ND2	2.44	0.49
1:B:4062:PHE:HA	1:B:4132:PHE:HZ	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1950:GLU:O	1:E:1954:ARG:N	2.45	0.49
1:E:4095:LYS:O	1:E:4099:SER:N	2.44	0.49
1:E:4822:THR:O	1:E:4825:THR:OG1	2.28	0.49
1:E:5012:LYS:O	1:E:5016:GLU:N	2.42	0.49
1:I:245:VAL:HG21	1:I:299:LEU:HG	1.93	0.49
1:B:1163:THR:HA	1:B:1168:VAL:HA	1.94	0.49
1:E:2823:ILE:HG12	1:E:2937:VAL:HG22	1.94	0.49
1:G:269:TRP:HB3	1:G:272:SER:HB3	1.94	0.49
1:G:1163:THR:HA	1:G:1168:VAL:HA	1.94	0.49
1:G:4152:GLU:OE1	1:G:4194:TYR:OH	2.29	0.49
1:B:1679:ASN:HA	1:B:1682:ALA:HB3	1.94	0.49
1:B:2737:PRO:O	1:B:2888:ARG:NH2	2.46	0.49
1:E:596:ASN:HB3	1:E:599:VAL:HG22	1.94	0.49
1:I:911:HIS:O	1:I:918:ARG:NH2	2.45	0.49
1:I:2457:LEU:HD23	1:I:2460:LEU:HD12	1.94	0.49
1:G:72:SER:HB2	1:G:107:ILE:HG13	1.95	0.49
1:G:551:LEU:HD21	1:G:589:LEU:HB2	1.94	0.49
1:B:911:HIS:O	1:B:918:ARG:NH2	2.45	0.49
1:B:1698:LEU:N	1:B:1712:TYR:OH	2.46	0.49
1:E:1111:PRO:HD3	1:E:1605:TRP:HE1	1.76	0.49
1:E:2006:ILE:O	1:E:2010:LEU:N	2.43	0.49
1:E:2868:SER:O	1:E:2872:GLN:N	2.45	0.49
1:E:3781:GLN:O	1:E:3785:ALA:N	2.45	0.49
1:I:864:PRO:HD2	1:I:867:LEU:HD12	1.93	0.49
1:I:932:LEU:HD23	1:I:935:LEU:HD12	1.94	0.49
1:I:2823:ILE:HG12	1:I:2937:VAL:HG22	1.94	0.49
1:I:2880:GLU:O	1:I:2884:ASN:N	2.42	0.49
1:I:3885:PHE:O	1:I:3889:GLN:N	2.41	0.49
1:I:4822:THR:O	1:I:4825:THR:OG1	2.29	0.49
1:G:3676:ASP:OD1	1:G:3676:ASP:N	2.45	0.49
1:G:4024:VAL:HG23	1:G:4027:LEU:HD12	1.94	0.49
1:B:4152:GLU:OE1	1:B:4194:TYR:OH	2.29	0.49
1:B:4651:THR:HA	1:B:4799:SER:HB3	1.93	0.49
1:E:245:VAL:HG21	1:E:299:LEU:HG	1.93	0.49
1:E:395:GLN:HG3	1:E:397:GLU:H	1.78	0.49
1:E:551:LEU:HD21	1:E:589:LEU:HB2	1.94	0.49
1:E:4702:ASP:OD1	1:E:4778:TRP:NE1	2.44	0.49
1:I:1679:ASN:HA	1:I:1682:ALA:HB3	1.94	0.49
1:I:2176:ASN:O	1:I:2180:GLN:N	2.42	0.49
1:I:2346:VAL:HG22	1:I:2348:GLU:H	1.78	0.49
1:I:4860:ARG:HG3	1:I:4876:CYS:HB3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:395:GLN:HG3	1:G:397:GLU:H	1.78	0.49
1:G:3707:ARG:HA	1:G:3710:LEU:HD23	1.94	0.49
1:B:3752:SER:O	1:B:3756:LYS:N	2.38	0.49
1:B:3780:LEU:HD11	1:B:3816:MET:HG3	1.95	0.49
1:E:838:HIS:HA	1:E:1201:HIS:HB3	1.94	0.49
1:E:1698:LEU:N	1:E:1712:TYR:OH	2.46	0.49
1:E:1713:ASP:O	1:E:1717:SER:N	2.39	0.49
1:E:4107:GLU:O	1:E:4111:LEU:N	2.40	0.49
1:I:580:GLU:OE2	1:I:624:ASN:ND2	2.46	0.49
1:I:1698:LEU:N	1:I:1712:TYR:OH	2.46	0.49
1:I:3927:GLN:O	1:I:3931:SER:N	2.42	0.49
1:I:4824:ARG:HA	1:I:4827:LEU:HB2	1.94	0.49
1:G:717:ASP:OD1	1:G:720:HIS:ND1	2.46	0.49
1:G:2346:VAL:HG22	1:G:2348:GLU:H	1.78	0.49
1:G:3897:ASN:O	1:G:3901:ASN:ND2	2.46	0.49
1:G:4201:ASN:HA	1:G:4204:GLN:HB3	1.95	0.49
1:G:4651:THR:HA	1:G:4799:SER:HB3	1.93	0.49
1:B:2176:ASN:O	1:B:2180:GLN:N	2.42	0.49
1:B:2880:GLU:O	1:B:2884:ASN:N	2.42	0.49
1:B:3840:SER:OG	1:B:3875:MET:O	2.26	0.49
1:E:45:ARG:NH2	1:E:447:ASP:OD1	2.37	0.49
1:E:3897:ASN:O	1:E:3901:ASN:ND2	2.46	0.49
1:I:395:GLN:HG3	1:I:397:GLU:H	1.78	0.49
1:I:838:HIS:HA	1:I:1201:HIS:HB3	1.94	0.49
1:I:3707:ARG:HA	1:I:3710:LEU:HD23	1.94	0.49
1:I:4697:VAL:O	1:I:4701:TRP:N	2.42	0.49
1:G:1516:UNK:N	1:G:1529:UNK:O	2.45	0.49
1:G:1931:LEU:HD22	1:G:1935:VAL:HG11	1.94	0.49
1:G:2737:PRO:O	1:G:2888:ARG:NH2	2.46	0.49
1:G:3946:GLN:OE1	1:G:3950:ASN:ND2	2.46	0.49
1:B:580:GLU:OE2	1:B:624:ASN:ND2	2.46	0.49
1:B:1089:TYR:N	1:B:1224:GLU:O	2.41	0.49
1:B:2346:VAL:HG22	1:B:2348:GLU:H	1.78	0.49
1:B:3842:LEU:O	1:B:3929:SER:OG	2.31	0.49
1:B:4066:LEU:HA	1:B:4133:GLN:HE22	1.78	0.49
1:E:1931:LEU:HD22	1:E:1935:VAL:HG11	1.94	0.49
1:E:3780:LEU:HD11	1:E:3816:MET:HG3	1.95	0.49
1:I:269:TRP:HB3	1:I:272:SER:HB3	1.94	0.49
1:I:952:LYS:HB3	1:I:968:ALA:HB1	1.95	0.49
1:I:4107:GLU:O	1:I:4111:LEU:N	2.40	0.49
1:G:111:HIS:N	1:G:116:MET:O	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:395:GLN:NE2	1:G:397:GLU:OE1	2.43	0.49
1:G:838:HIS:HA	1:G:1201:HIS:HB3	1.94	0.49
1:B:838:HIS:HA	1:B:1201:HIS:HB3	1.94	0.49
1:B:1516:UNK:N	1:B:1529:UNK:O	2.46	0.49
1:B:2751:LEU:HD11	1:B:2823:ILE:HG21	1.95	0.49
1:E:23:GLN:OE1	1:E:203:ASN:ND2	2.46	0.49
1:E:619:ASP:OD1	1:E:1680:ARG:NH1	2.46	0.49
1:E:2737:PRO:O	1:E:2888:ARG:NH2	2.46	0.49
1:E:4832:HIS:NE2	1:E:4942:GLU:OE1	2.46	0.49
1:I:647:ASN:ND2	1:I:820:ARG:O	2.42	0.49
1:I:2009:LEU:HD23	1:I:2012:PHE:HE2	1.78	0.49
1:I:3781:GLN:O	1:I:3785:ALA:N	2.45	0.49
1:I:3897:ASN:O	1:I:3901:ASN:ND2	2.46	0.49
1:I:4024:VAL:HG23	1:I:4027:LEU:HD12	1.94	0.49
1:I:4702:ASP:OD1	1:I:4778:TRP:NE1	2.44	0.49
1:G:3780:LEU:HD11	1:G:3816:MET:HG3	1.95	0.49
1:B:23:GLN:HE21	1:B:34:LYS:HB3	1.78	0.48
1:B:395:GLN:HG3	1:B:397:GLU:H	1.78	0.48
1:B:551:LEU:HD21	1:B:589:LEU:HB2	1.94	0.48
1:B:583:ILE:HA	1:B:586:ILE:HD12	1.95	0.48
1:B:717:ASP:OD1	1:B:720:HIS:ND1	2.46	0.48
1:B:2868:SER:O	1:B:2872:GLN:N	2.45	0.48
1:B:3781:GLN:O	1:B:3785:ALA:N	2.45	0.48
1:E:932:LEU:HD23	1:E:935:LEU:HD12	1.94	0.48
1:I:72:SER:HB2	1:I:107:ILE:HG13	1.95	0.48
1:I:717:ASP:OD1	1:I:720:HIS:ND1	2.46	0.48
1:I:1770:SER:OG	1:I:1772:ARG:NE	2.46	0.48
1:I:1863:LEU:HB3	1:I:1870:VAL:HG11	1.95	0.48
1:I:2432:LEU:O	1:I:2436:CYS:N	2.46	0.48
1:G:23:GLN:HE21	1:G:34:LYS:HB3	1.77	0.48
1:G:1093:GLU:OE1	1:G:1201:HIS:NE2	2.46	0.48
1:G:2823:ILE:HG12	1:G:2937:VAL:HG22	1.94	0.48
1:B:269:TRP:HB3	1:B:272:SER:HB3	1.94	0.48
1:B:870:ILE:HD11	1:B:1049:TYR:CG	2.48	0.48
1:B:983:THR:O	1:B:987:ARG:N	2.45	0.48
1:B:1154:ASP:O	1:B:1158:ASN:N	2.46	0.48
1:B:1671:ARG:HE	1:B:1713:ASP:HB3	1.79	0.48
1:B:2006:ILE:O	1:B:2010:LEU:N	2.43	0.48
1:B:2009:LEU:HD23	1:B:2012:PHE:HE2	1.78	0.48
1:E:870:ILE:HD11	1:E:1049:TYR:CG	2.48	0.48
1:E:1163:THR:HA	1:E:1168:VAL:HA	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3832:ILE:O	1:E:3836:MET:N	2.42	0.48
1:I:243:ARG:NH2	1:I:303:ASP:OD1	2.29	0.48
1:I:396:GLU:HG2	1:I:399:GLN:HB3	1.95	0.48
1:I:540:PHE:HD2	1:I:567:VAL:HG11	1.78	0.48
1:I:3946:GLN:OE1	1:I:3950:ASN:ND2	2.46	0.48
1:G:23:GLN:OE1	1:G:203:ASN:ND2	2.46	0.48
1:B:485:SER:O	1:B:489:ASN:N	2.41	0.48
1:E:4022:ASP:HA	1:E:4025:VAL:HG22	1.95	0.48
1:E:4201:ASN:HA	1:E:4204:GLN:HB3	1.95	0.48
1:E:4824:ARG:HA	1:E:4827:LEU:HB2	1.94	0.48
1:I:2737:PRO:O	1:I:2888:ARG:NH2	2.46	0.48
1:I:3365:UNK:O	1:I:3369:UNK:N	2.45	0.48
1:I:3780:LEU:HD11	1:I:3816:MET:HG3	1.95	0.48
1:G:15:ARG:HG2	1:G:100:THR:HA	1.96	0.48
1:G:396:GLU:HG2	1:G:399:GLN:HB3	1.95	0.48
1:G:1271:ARG:HA	1:G:1471:UNK:HA	1.95	0.48
1:G:2302:LEU:O	1:G:2306:GLY:N	2.46	0.48
1:G:2457:LEU:HD23	1:G:2460:LEU:HD12	1.94	0.48
1:G:3365:UNK:O	1:G:3369:UNK:N	2.46	0.48
1:B:3946:GLN:OE1	1:B:3950:ASN:ND2	2.46	0.48
1:B:4180:ARG:O	1:B:4987:ASN:ND2	2.47	0.48
1:E:580:GLU:OE2	1:E:624:ASN:ND2	2.46	0.48
1:E:1154:ASP:O	1:E:1158:ASN:N	2.46	0.48
1:E:1671:ARG:HE	1:E:1713:ASP:HB3	1.78	0.48
1:E:4169:SER:O	1:E:4173:TYR:N	2.45	0.48
1:G:1698:LEU:N	1:G:1712:TYR:OH	2.46	0.48
1:G:4822:THR:O	1:G:4825:THR:OG1	2.28	0.48
1:B:3897:ASN:O	1:B:3901:ASN:ND2	2.46	0.48
1:B:4807:PHE:HZ	1:I:4857:ASN:HB2	1.79	0.48
1:E:396:GLU:HG2	1:E:399:GLN:HB3	1.95	0.48
1:E:1679:ASN:HA	1:E:1682:ALA:HB3	1.94	0.48
1:E:3365:UNK:O	1:E:3369:UNK:N	2.46	0.48
1:E:3707:ARG:HA	1:E:3710:LEU:HD23	1.94	0.48
1:E:3946:GLN:OE1	1:E:3950:ASN:ND2	2.46	0.48
1:E:4028:LEU:HD11	1:E:4142:ASN:HB3	1.96	0.48
1:E:4702:ASP:HA	1:E:4778:TRP:HE1	1.78	0.48
1:I:57:ASN:HD22	1:I:308:HIS:HB2	1.79	0.48
1:I:442:ILE:HG23	1:I:521:LEU:HD11	1.96	0.48
1:I:2751:LEU:HD11	1:I:2823:ILE:HG21	1.95	0.48
1:I:2868:SER:O	1:I:2872:GLN:N	2.45	0.48
1:I:4832:HIS:NE2	1:I:4942:GLU:OE1	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:448:LEU:HA	1:G:451:TYR:HB3	1.94	0.48
1:G:580:GLU:OE2	1:G:624:ASN:ND2	2.46	0.48
1:G:619:ASP:OD1	1:G:1680:ARG:NH1	2.47	0.48
1:G:731:THR:OG1	1:G:1519:UNK:O	2.32	0.48
1:G:932:LEU:HD23	1:G:935:LEU:HD12	1.94	0.48
1:G:2342:ASN:N	1:G:2342:ASN:OD1	2.45	0.48
1:G:4091:LYS:HA	1:G:4094:GLN:HB3	1.96	0.48
1:G:4702:ASP:HA	1:G:4778:TRP:HE1	1.78	0.48
1:B:111:HIS:HD2	1:B:114:SER:H	1.62	0.48
1:B:2128:TYR:HB3	1:B:3669:PHE:HB3	1.95	0.48
1:B:3945:GLU:O	1:B:3949:ARG:N	2.45	0.48
1:B:4091:LYS:HA	1:B:4094:GLN:HB3	1.96	0.48
1:B:4201:ASN:HA	1:B:4204:GLN:HB3	1.95	0.48
1:E:15:ARG:HG2	1:E:100:THR:HA	1.96	0.48
1:E:72:SER:HB2	1:E:107:ILE:HG13	1.95	0.48
1:E:4091:LYS:HA	1:E:4094:GLN:HB3	1.96	0.48
1:I:621:ILE:O	1:I:625:LEU:N	2.38	0.48
1:I:870:ILE:HD11	1:I:1049:TYR:CG	2.48	0.48
1:I:4022:ASP:HA	1:I:4025:VAL:HG22	1.95	0.48
1:I:4152:GLU:OE1	1:I:4194:TYR:OH	2.29	0.48
1:G:1089:TYR:N	1:G:1224:GLU:O	2.41	0.48
1:G:1950:GLU:O	1:G:1954:ARG:N	2.45	0.48
1:B:2342:ASN:N	1:B:2342:ASN:OD1	2.45	0.48
1:B:5012:LYS:O	1:B:5016:GLU:N	2.42	0.48
1:E:540:PHE:HD2	1:E:567:VAL:HG11	1.78	0.48
1:E:717:ASP:OD1	1:E:720:HIS:ND1	2.46	0.48
1:E:2751:LEU:HD11	1:E:2823:ILE:HG21	1.95	0.48
1:I:241:GLN:O	1:I:289:ARG:NH1	2.37	0.48
1:I:2758:PHE:O	1:I:2762:THR:N	2.39	0.48
1:I:3889:GLN:OE1	1:I:3960:GLN:NE2	2.47	0.48
1:I:4091:LYS:HA	1:I:4094:GLN:HB3	1.96	0.48
1:I:4201:ASN:HA	1:I:4204:GLN:HB3	1.95	0.48
1:G:111:HIS:HD2	1:G:114:SER:H	1.62	0.48
1:G:870:ILE:HD11	1:G:1049:TYR:CG	2.48	0.48
1:G:2009:LEU:HD23	1:G:2012:PHE:HE2	1.78	0.48
1:G:2128:TYR:HB3	1:G:3669:PHE:HB3	1.95	0.48
1:G:3945:GLU:O	1:G:3949:ARG:N	2.45	0.48
1:G:4236:SER:O	1:G:4240:ASP:N	2.43	0.48
1:G:4697:VAL:O	1:G:4701:TRP:N	2.42	0.48
1:B:236:ALA:HA	1:B:242:ARG:HD2	1.95	0.48
1:B:1863:LEU:HB3	1:B:1870:VAL:HG11	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2432:LEU:O	1:B:2436:CYS:N	2.46	0.48
1:B:4832:HIS:NE2	1:B:4942:GLU:OE1	2.46	0.48
1:E:23:GLN:HE21	1:E:34:LYS:HB3	1.78	0.48
1:E:3752:SER:O	1:E:3756:LYS:N	2.38	0.48
1:E:3842:LEU:O	1:E:3929:SER:OG	2.30	0.48
1:E:4180:ARG:O	1:E:4987:ASN:ND2	2.47	0.48
1:I:111:HIS:HD2	1:I:114:SER:H	1.62	0.48
1:I:448:LEU:HA	1:I:451:TYR:HB3	1.94	0.48
1:I:2302:LEU:O	1:I:2306:GLY:N	2.46	0.48
1:I:4180:ARG:O	1:I:4987:ASN:ND2	2.47	0.48
1:G:1863:LEU:HB3	1:G:1870:VAL:HG11	1.95	0.48
2:F:7:ILE:HG22	2:F:9:PRO:HD2	1.96	0.48
1:B:540:PHE:HD2	1:B:567:VAL:HG11	1.78	0.48
1:B:2457:LEU:HD23	1:B:2460:LEU:HD12	1.94	0.48
1:E:952:LYS:HB3	1:E:968:ALA:HB1	1.95	0.48
1:E:2302:LEU:O	1:E:2306:GLY:N	2.46	0.48
1:I:1671:ARG:HE	1:I:1713:ASP:HB3	1.78	0.48
1:I:1965:TYR:OH	1:I:2027:ILE:O	2.27	0.48
1:G:236:ALA:HA	1:G:242:ARG:HD2	1.95	0.48
1:G:1713:ASP:O	1:G:1717:SER:N	2.39	0.48
1:G:2432:LEU:O	1:G:2436:CYS:N	2.46	0.48
2:A:7:ILE:HG22	2:A:9:PRO:HD2	1.96	0.48
1:B:15:ARG:HG2	1:B:100:THR:HA	1.96	0.48
1:B:1770:SER:OG	1:B:1772:ARG:NE	2.46	0.48
1:B:3707:ARG:HA	1:B:3710:LEU:HD23	1.94	0.48
1:B:4567:LEU:HD12	1:B:4816:ILE:HD12	1.96	0.48
1:E:2009:LEU:HD23	1:E:2012:PHE:HE2	1.78	0.48
1:I:23:GLN:HE21	1:I:34:LYS:HB3	1.78	0.48
1:I:410:LEU:HD21	1:I:441:VAL:HA	1.96	0.48
1:I:619:ASP:OD1	1:I:1680:ARG:NH1	2.47	0.48
1:I:2452:ARG:NH1	1:G:175:SER:O	2.44	0.48
1:I:4066:LEU:HA	1:I:4133:GLN:HE22	1.78	0.48
1:G:1770:SER:OG	1:G:1772:ARG:NE	2.46	0.48
1:G:2451:LEU:O	1:G:2455:ALA:N	2.42	0.48
1:G:2751:LEU:HD11	1:G:2823:ILE:HG21	1.95	0.48
1:G:4022:ASP:HA	1:G:4025:VAL:HG22	1.95	0.48
2:H:7:ILE:HG22	2:H:9:PRO:HD2	1.96	0.48
1:B:410:LEU:HD21	1:B:441:VAL:HA	1.96	0.47
1:B:682:LEU:HD13	1:B:787:VAL:HG11	1.96	0.47
1:B:913:LEU:HD13	1:B:918:ARG:HA	1.96	0.47
1:B:3365:UNK:O	1:B:3369:UNK:N	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4022:ASP:HA	1:B:4025:VAL:HG22	1.95	0.47
1:E:241:GLN:O	1:E:289:ARG:NH1	2.37	0.47
1:E:2342:ASN:N	1:E:2342:ASN:OD1	2.45	0.47
1:E:4200:THR:O	1:E:4204:GLN:N	2.37	0.47
1:I:23:GLN:OE1	1:I:203:ASN:ND2	2.46	0.47
1:I:4567:LEU:HD12	1:I:4816:ILE:HD12	1.96	0.47
1:I:4584:ASP:HA	1:I:4627:MET:HA	1.96	0.47
1:G:1679:ASN:HA	1:G:1682:ALA:HB3	1.94	0.47
1:G:2281:ILE:HA	1:G:2341:VAL:HG11	1.96	0.47
1:G:3829:PHE:HA	1:G:3832:ILE:HD12	1.96	0.47
1:G:4028:LEU:HD11	1:G:4142:ASN:HB3	1.96	0.47
1:G:4832:HIS:NE2	1:G:4942:GLU:OE1	2.46	0.47
1:B:72:SER:HB2	1:B:107:ILE:HG13	1.95	0.47
1:B:448:LEU:HA	1:B:451:TYR:HB3	1.94	0.47
1:B:619:ASP:OD1	1:B:1680:ARG:NH1	2.47	0.47
1:E:236:ALA:HA	1:E:242:ARG:HD2	1.95	0.47
1:E:736:HIS:HB2	2:F:7:ILE:HG23	1.95	0.47
1:E:1863:LEU:HB3	1:E:1870:VAL:HG11	1.95	0.47
1:I:3994:HIS:O	1:I:3998:HIS:ND1	2.42	0.47
1:G:57:ASN:HD22	1:G:308:HIS:HB2	1.79	0.47
1:G:451:TYR:O	1:G:474:ARG:NH1	2.44	0.47
1:G:583:ILE:HA	1:G:586:ILE:HD12	1.95	0.47
1:G:4180:ARG:O	1:G:4987:ASN:ND2	2.47	0.47
2:J:7:ILE:HG22	2:J:9:PRO:HD2	1.96	0.47
1:B:396:GLU:HG2	1:B:399:GLN:HB3	1.95	0.47
1:B:891:TRP:HA	1:B:902:ARG:HB3	1.96	0.47
1:B:4746:ALA:O	1:B:4750:ILE:N	2.42	0.47
1:B:4942:GLU:O	1:B:4946:GLN:N	2.47	0.47
1:E:583:ILE:HA	1:E:586:ILE:HD12	1.95	0.47
1:E:3840:SER:OG	1:E:3875:MET:O	2.27	0.47
1:I:15:ARG:HG2	1:I:100:THR:HA	1.96	0.47
1:I:236:ALA:HA	1:I:242:ARG:HD2	1.95	0.47
1:I:583:ILE:HA	1:I:586:ILE:HD12	1.95	0.47
1:I:1516:UNK:N	1:I:1529:UNK:O	2.46	0.47
1:I:4937:ILE:O	1:I:4941:GLY:N	2.41	0.47
1:G:4937:ILE:O	1:G:4941:GLY:N	2.41	0.47
2:A:39:SER:HB2	2:A:45:PRO:HA	1.96	0.47
1:B:23:GLN:OE1	1:B:203:ASN:ND2	2.46	0.47
1:B:3994:HIS:O	1:B:3998:HIS:ND1	2.43	0.47
1:B:4560:TYR:O	1:B:4564:PHE:N	2.44	0.47
1:E:2128:TYR:HB3	1:E:3669:PHE:HB3	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2346:VAL:HG22	1:E:2348:GLU:H	1.78	0.47
1:I:1848:LEU:HB3	1:I:1853:ILE:HB	1.97	0.47
1:G:442:ILE:HG23	1:G:521:LEU:HD11	1.96	0.47
1:G:540:PHE:HD2	1:G:567:VAL:HG11	1.78	0.47
1:G:1867:GLU:HA	1:G:1870:VAL:HB	1.96	0.47
1:B:111:HIS:N	1:B:116:MET:O	2.46	0.47
1:B:350:HIS:N	1:B:355:LEU:O	2.48	0.47
1:B:360:ALA:N	1:B:375:LYS:O	2.38	0.47
1:B:1950:GLU:O	1:B:1954:ARG:N	2.45	0.47
1:E:410:LEU:HD21	1:E:441:VAL:HA	1.96	0.47
1:I:682:LEU:HD13	1:I:787:VAL:HG11	1.96	0.47
1:G:3889:GLN:OE1	1:G:3960:GLN:NE2	2.47	0.47
1:B:3889:GLN:OE1	1:B:3960:GLN:NE2	2.47	0.47
1:B:4204:GLN:NE2	1:B:4245:MET:SD	2.70	0.47
1:B:4236:SER:O	1:B:4240:ASP:N	2.43	0.47
1:B:4702:ASP:HA	1:B:4778:TRP:HE1	1.78	0.47
1:E:57:ASN:HD22	1:E:308:HIS:HB2	1.79	0.47
1:E:891:TRP:HA	1:E:902:ARG:HB3	1.97	0.47
1:E:2281:ILE:HA	1:E:2341:VAL:HG11	1.96	0.47
1:E:3676:ASP:OD1	1:E:3676:ASP:N	2.45	0.47
1:I:1032:LYS:O	1:I:1036:ARG:N	2.39	0.47
1:I:1950:GLU:O	1:I:1954:ARG:N	2.45	0.47
1:I:4702:ASP:HA	1:I:4778:TRP:HE1	1.78	0.47
1:G:342:GLY:HA2	1:G:389:PHE:HD2	1.80	0.47
1:G:410:LEU:HD21	1:G:441:VAL:HA	1.96	0.47
1:G:1671:ARG:HE	1:G:1713:ASP:HB3	1.79	0.47
1:G:4066:LEU:HA	1:G:4133:GLN:HE22	1.78	0.47
1:B:57:ASN:HD22	1:B:308:HIS:HB2	1.79	0.47
1:B:442:ILE:HG23	1:B:521:LEU:HD11	1.96	0.47
1:B:886:ARG:HB2	1:B:907:LEU:HD21	1.97	0.47
1:B:952:LYS:HB3	1:B:968:ALA:HB1	1.95	0.47
1:B:1093:GLU:OE1	1:B:1201:HIS:NE2	2.46	0.47
1:B:1848:LEU:HB3	1:B:1853:ILE:HB	1.97	0.47
1:B:2302:LEU:O	1:B:2306:GLY:N	2.46	0.47
1:B:3552:UNK:O	1:B:3556:UNK:N	2.48	0.47
1:B:4028:LEU:HD11	1:B:4142:ASN:HB3	1.96	0.47
1:E:442:ILE:HG23	1:E:521:LEU:HD11	1.96	0.47
1:E:886:ARG:HB2	1:E:907:LEU:HD21	1.97	0.47
1:E:911:HIS:O	1:E:918:ARG:NH2	2.45	0.47
1:E:983:THR:O	1:E:987:ARG:N	2.45	0.47
1:E:1516:UNK:N	1:E:1529:UNK:O	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4066:LEU:HA	1:E:4133:GLN:HE22	1.78	0.47
1:E:4584:ASP:HA	1:E:4627:MET:HA	1.96	0.47
1:I:2116:LEU:O	1:I:2120:MET:N	2.43	0.47
1:I:2128:TYR:HB3	1:I:3669:PHE:HB3	1.95	0.47
1:I:3552:UNK:O	1:I:3556:UNK:N	2.48	0.47
1:I:3702:VAL:O	1:I:3706:SER:N	2.43	0.47
1:G:886:ARG:HB2	1:G:907:LEU:HD21	1.97	0.47
1:G:911:HIS:O	1:G:918:ARG:NH2	2.45	0.47
1:G:983:THR:O	1:G:987:ARG:N	2.45	0.47
1:G:1848:LEU:HB3	1:G:1853:ILE:HB	1.97	0.47
1:G:2176:ASN:O	1:G:2180:GLN:N	2.42	0.47
1:G:4584:ASP:HA	1:G:4627:MET:HA	1.96	0.47
1:B:709:ASP:HB3	1:B:725:HIS:CE1	2.50	0.47
1:B:4584:ASP:HA	1:B:4627:MET:HA	1.96	0.47
1:E:560:ILE:HA	1:E:563:VAL:HG12	1.97	0.47
1:E:4567:LEU:HD12	1:E:4816:ILE:HD12	1.96	0.47
1:I:342:GLY:HA2	1:I:389:PHE:HD2	1.80	0.47
1:I:1093:GLU:OE1	1:I:1201:HIS:NE2	2.46	0.47
1:G:560:ILE:HA	1:G:563:VAL:HG12	1.97	0.47
1:G:1154:ASP:O	1:G:1158:ASN:N	2.46	0.47
1:G:4763:GLY:O	1:G:4766:THR:OG1	2.24	0.47
2:H:69:GLY:N	2:H:103:LEU:O	2.47	0.47
1:E:1867:GLU:HA	1:E:1870:VAL:HB	1.96	0.47
1:E:2739:PRO:HB3	1:E:2884:ASN:HB3	1.97	0.47
1:E:3829:PHE:HA	1:E:3832:ILE:HD12	1.96	0.47
1:I:3829:PHE:HA	1:I:3832:ILE:HD12	1.96	0.47
1:I:4028:LEU:HD11	1:I:4142:ASN:HB3	1.96	0.47
1:G:2739:PRO:HB3	1:G:2884:ASN:HB3	1.97	0.47
1:G:3842:LEU:O	1:G:3929:SER:OG	2.30	0.47
1:G:4567:LEU:HD12	1:G:4816:ILE:HD12	1.96	0.47
2:H:39:SER:HB2	2:H:45:PRO:HA	1.96	0.47
1:B:342:GLY:HA2	1:B:389:PHE:HD2	1.80	0.47
1:B:1076:ARG:NH2	1:B:1107:PRO:O	2.40	0.47
1:E:709:ASP:HB3	1:E:725:HIS:CE1	2.50	0.47
1:E:1952:GLN:HA	1:E:1955:VAL:HG12	1.97	0.47
1:I:2420:HIS:ND1	1:I:2493:UNK:O	2.30	0.47
1:I:4236:SER:O	1:I:4240:ASP:N	2.43	0.47
1:G:876:GLU:O	1:G:880:GLU:N	2.42	0.47
1:G:952:LYS:HB3	1:G:968:ALA:HB1	1.95	0.47
1:G:1952:GLN:HA	1:G:1955:VAL:HG12	1.97	0.47
1:G:3781:GLN:HA	1:G:3784:SER:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:39:SER:HB2	2:F:45:PRO:HA	1.96	0.47
2:J:39:SER:HB2	2:J:45:PRO:HA	1.96	0.47
1:B:614:VAL:HG22	1:B:616:SER:H	1.80	0.46
1:B:1713:ASP:O	1:B:1717:SER:N	2.39	0.46
1:E:111:HIS:HD2	1:E:114:SER:H	1.62	0.46
1:E:342:GLY:HA2	1:E:389:PHE:HD2	1.80	0.46
1:E:4090:LYS:HD3	1:E:4112:LEU:HD13	1.96	0.46
1:I:895:PRO:HA	1:I:905:PRO:HB3	1.97	0.46
1:I:2281:ILE:HA	1:I:2341:VAL:HG11	1.96	0.46
1:I:4101:LYS:HG3	1:G:4731:ILE:HA	1.96	0.46
1:G:891:TRP:HA	1:G:902:ARG:HB3	1.96	0.46
1:G:913:LEU:HD13	1:G:918:ARG:HA	1.96	0.46
1:B:731:THR:OG1	1:B:1519:UNK:O	2.33	0.46
1:B:3829:PHE:HA	1:B:3832:ILE:HD12	1.96	0.46
1:E:895:PRO:HA	1:E:905:PRO:HB3	1.97	0.46
1:E:1770:SER:OG	1:E:1772:ARG:NE	2.46	0.46
1:I:886:ARG:HB2	1:I:907:LEU:HD21	1.97	0.46
1:I:2739:PRO:HB3	1:I:2884:ASN:HB3	1.97	0.46
1:G:4942:GLU:O	1:G:4946:GLN:N	2.47	0.46
1:B:2281:ILE:HA	1:B:2341:VAL:HG11	1.96	0.46
1:E:1089:TYR:N	1:E:1224:GLU:O	2.41	0.46
1:E:3986:TRP:NE1	1:E:4043:GLN:OE1	2.48	0.46
1:E:4560:TYR:O	1:E:4564:PHE:N	2.44	0.46
1:I:709:ASP:HB3	1:I:725:HIS:CE1	2.50	0.46
1:I:3781:GLN:HA	1:I:3784:SER:HB3	1.97	0.46
1:I:3891:LEU:HB3	1:I:3899:PHE:CE2	2.51	0.46
1:G:709:ASP:HB3	1:G:725:HIS:CE1	2.50	0.46
1:G:3986:TRP:NE1	1:G:4043:GLN:OE1	2.48	0.46
1:B:1211:LEU:HD11	1:B:1225:PRO:HB3	1.97	0.46
1:B:1867:GLU:HA	1:B:1870:VAL:HB	1.96	0.46
1:E:55:ALA:O	1:E:281:ARG:NH1	2.35	0.46
1:E:1093:GLU:OE1	1:E:1201:HIS:NE2	2.46	0.46
1:E:1211:LEU:HD11	1:E:1225:PRO:HB3	1.97	0.46
1:E:2432:LEU:O	1:E:2436:CYS:N	2.46	0.46
1:I:350:HIS:N	1:I:355:LEU:O	2.48	0.46
1:I:356:TRP:O	1:I:379:HIS:N	2.43	0.46
1:I:451:TYR:O	1:I:474:ARG:NH1	2.44	0.46
1:I:891:TRP:HA	1:I:902:ARG:HB3	1.97	0.46
1:I:983:THR:O	1:I:987:ARG:N	2.45	0.46
1:I:1090:PHE:HD2	1:I:1202:LEU:HD11	1.81	0.46
1:I:3770:LEU:HD13	1:I:3770:LEU:HA	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:356:TRP:O	1:G:379:HIS:N	2.43	0.46
1:G:1284:UNK:HA	1:G:1463:UNK:HA	1.98	0.46
1:G:4204:GLN:NE2	1:G:4245:MET:SD	2.70	0.46
2:F:59:PHE:HD1	2:F:74:LEU:HD11	1.81	0.46
1:B:497:TYR:HB3	1:B:500:ALA:HB2	1.98	0.46
1:B:895:PRO:HA	1:B:905:PRO:HB3	1.98	0.46
1:B:3986:TRP:NE1	1:B:4043:GLN:OE1	2.48	0.46
1:B:4090:LYS:HD3	1:B:4112:LEU:HD13	1.96	0.46
1:E:1848:LEU:HB3	1:E:1853:ILE:HB	1.97	0.46
1:E:3645:PRO:O	1:E:3649:ALA:N	2.46	0.46
1:E:3994:HIS:O	1:E:3998:HIS:ND1	2.42	0.46
1:I:1211:LEU:HD11	1:I:1225:PRO:HB3	1.97	0.46
1:I:1867:GLU:HA	1:I:1870:VAL:HB	1.96	0.46
1:I:2440:MET:O	1:I:2444:GLN:N	2.39	0.46
1:G:682:LEU:HD13	1:G:787:VAL:HG11	1.96	0.46
1:G:1090:PHE:HD2	1:G:1202:LEU:HD11	1.81	0.46
1:G:3891:LEU:HB3	1:G:3899:PHE:CE2	2.51	0.46
1:B:25:SER:HA	1:B:34:LYS:HA	1.98	0.46
1:B:179:TYR:OH	1:E:2359:ARG:NH1	2.49	0.46
1:E:485:SER:HA	1:E:488:LEU:HB2	1.98	0.46
1:E:1271:ARG:HA	1:E:1471:UNK:HA	1.97	0.46
1:E:3945:GLU:O	1:E:3949:ARG:N	2.45	0.46
1:I:3658:LYS:HA	1:I:3661:TRP:CD2	2.51	0.46
1:I:3986:TRP:NE1	1:I:4043:GLN:OE1	2.48	0.46
1:G:113:HIS:CE1	1:G:399:GLN:HA	2.51	0.46
1:G:617:ASN:HA	1:G:620:LEU:HB2	1.98	0.46
1:G:2880:GLU:O	1:G:2884:ASN:N	2.42	0.46
1:G:4060:LYS:HE3	1:G:4064:MET:HB2	1.97	0.46
1:G:4090:LYS:HD3	1:G:4112:LEU:HD13	1.96	0.46
1:B:3702:VAL:O	1:B:3706:SER:N	2.43	0.46
1:E:614:VAL:HG22	1:E:616:SER:H	1.80	0.46
1:E:617:ASN:HA	1:E:620:LEU:HB2	1.98	0.46
1:E:4041:ALA:HA	1:E:4044:MET:HB2	1.98	0.46
1:I:497:TYR:HB3	1:I:500:ALA:HB2	1.98	0.46
1:G:1211:LEU:HD11	1:G:1225:PRO:HB3	1.97	0.46
1:G:3552:UNK:O	1:G:3556:UNK:N	2.48	0.46
2:H:59:PHE:HD1	2:H:74:LEU:HD11	1.81	0.46
1:B:224:HIS:N	1:B:229:GLU:O	2.42	0.46
1:B:3891:LEU:HB3	1:B:3899:PHE:CE2	2.51	0.46
1:E:913:LEU:HD13	1:E:918:ARG:HA	1.96	0.46
1:E:3781:GLN:HA	1:E:3784:SER:HB3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:25:SER:HA	1:I:34:LYS:HA	1.98	0.46
1:I:113:HIS:CE1	1:I:399:GLN:HA	2.51	0.46
1:I:485:SER:HA	1:I:488:LEU:HB2	1.98	0.46
1:I:1154:ASP:O	1:I:1158:ASN:N	2.46	0.46
1:I:1284:UNK:HA	1:I:1463:UNK:HA	1.98	0.46
1:B:485:SER:HA	1:B:488:LEU:HB2	1.98	0.46
1:B:1952:GLN:HA	1:B:1955:VAL:HG12	1.97	0.46
1:B:2297:LYS:O	1:B:2301:TYR:N	2.44	0.46
1:B:4060:LYS:HE3	1:B:4064:MET:HB2	1.97	0.46
1:E:451:TYR:O	1:E:474:ARG:NH1	2.44	0.46
1:E:633:LEU:HB3	1:E:1639:LEU:HD22	1.98	0.46
1:E:4942:GLU:O	1:E:4946:GLN:N	2.47	0.46
1:I:218:HIS:HB3	1:I:392:ARG:HD3	1.98	0.46
1:I:1952:GLN:HA	1:I:1955:VAL:HG12	1.97	0.46
1:I:4060:LYS:HE3	1:I:4064:MET:HB2	1.97	0.46
1:I:4864:ASN:H	1:I:4874:MET:HG2	1.81	0.46
1:G:1269:CYS:HA	1:G:1473:UNK:HA	1.98	0.46
1:B:560:ILE:HA	1:B:563:VAL:HG12	1.97	0.46
1:B:876:GLU:O	1:B:880:GLU:N	2.42	0.46
1:B:2739:PRO:HB3	1:B:2884:ASN:HB3	1.97	0.46
1:B:3781:GLN:HA	1:B:3784:SER:HB3	1.97	0.46
1:E:1721:GLU:OE2	1:E:1725:ARG:NH2	2.39	0.46
1:E:2297:LYS:O	1:E:2301:TYR:N	2.44	0.46
1:E:3552:UNK:O	1:E:3556:UNK:N	2.49	0.46
1:E:3889:GLN:OE1	1:E:3960:GLN:NE2	2.47	0.46
1:I:633:LEU:HB3	1:I:1639:LEU:HD22	1.98	0.46
1:I:913:LEU:HD13	1:I:918:ARG:HA	1.96	0.46
1:I:2212:VAL:O	1:I:2216:GLY:N	2.44	0.46
1:I:5012:LYS:O	1:I:5016:GLU:N	2.42	0.46
1:G:218:HIS:HB3	1:G:392:ARG:HD3	1.98	0.46
1:G:360:ALA:N	1:G:375:LYS:O	2.38	0.46
1:G:2155:LEU:HD21	1:G:2188:ASN:HD22	1.81	0.46
1:G:4041:ALA:HA	1:G:4044:MET:HB2	1.98	0.46
1:G:4864:ASN:H	1:G:4874:MET:HG2	1.81	0.46
2:A:59:PHE:HD1	2:A:74:LEU:HD11	1.81	0.46
1:B:3658:LYS:HA	1:B:3661:TRP:CD2	2.51	0.45
1:E:2176:ASN:O	1:E:2180:GLN:N	2.42	0.45
1:E:2764:GLU:HG3	1:E:2857:PRO:HB2	1.98	0.45
1:E:2878:LEU:HD13	1:E:2926:LEU:HD23	1.98	0.45
1:I:2327:GLY:HA2	1:I:2330:ARG:HD3	1.98	0.45
1:I:2451:LEU:O	1:I:2455:ALA:N	2.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3461:UNK:O	1:G:3465:UNK:N	2.49	0.45
1:G:4937:ILE:HA	1:G:4940:PHE:HD2	1.81	0.45
2:J:59:PHE:HD1	2:J:74:LEU:HD11	1.81	0.45
1:B:134:ASP:HA	1:B:192:ASP:HA	1.98	0.45
1:B:2102:VAL:HB	1:B:2124:LEU:HD12	1.99	0.45
1:B:2420:HIS:ND1	1:B:2493:UNK:O	2.30	0.45
1:E:25:SER:HA	1:E:34:LYS:HA	1.98	0.45
1:E:111:HIS:N	1:E:116:MET:O	2.46	0.45
1:E:682:LEU:HD13	1:E:787:VAL:HG11	1.96	0.45
1:E:1243:PRO:HB2	1:E:1600:LEU:HD13	1.98	0.45
1:E:1965:TYR:HE1	1:E:2027:ILE:HB	1.82	0.45
1:E:3730:ALA:O	1:E:3734:HIS:N	2.50	0.45
1:I:55:ALA:O	1:I:281:ARG:NH1	2.35	0.45
1:I:560:ILE:HA	1:I:563:VAL:HG12	1.97	0.45
1:I:614:VAL:HG22	1:I:616:SER:H	1.80	0.45
1:I:617:ASN:HA	1:I:620:LEU:HB2	1.98	0.45
1:I:4090:LYS:HD3	1:I:4112:LEU:HD13	1.96	0.45
1:G:134:ASP:HA	1:G:192:ASP:HA	1.98	0.45
1:G:485:SER:HA	1:G:488:LEU:HB2	1.98	0.45
1:G:664:PHE:HB2	1:G:746:CYS:HB2	1.98	0.45
1:G:895:PRO:HA	1:G:905:PRO:HB3	1.97	0.45
1:G:1095:VAL:HB	1:G:1199:VAL:HG23	1.98	0.45
1:G:1456:UNK:HA	1:G:1498:UNK:HA	1.98	0.45
1:G:2121:PHE:O	1:G:3725:TYR:OH	2.33	0.45
1:G:2327:GLY:HA2	1:G:2330:ARG:HD3	1.98	0.45
1:G:4006:ASP:HB3	1:G:4009:GLN:HB2	1.98	0.45
1:G:4200:THR:O	1:G:4204:GLN:N	2.37	0.45
1:B:2384:ILE:O	1:B:2388:GLU:N	2.49	0.45
1:B:2878:LEU:HD13	1:B:2926:LEU:HD23	1.98	0.45
1:E:1076:ARG:NH2	1:E:1107:PRO:O	2.40	0.45
1:E:3658:LYS:HA	1:E:3661:TRP:CD2	2.51	0.45
1:E:3885:PHE:HA	1:E:3888:LEU:HB2	1.98	0.45
1:E:4236:SER:O	1:E:4240:ASP:N	2.43	0.45
1:I:793:LEU:HD12	1:I:797:HIS:HB2	1.99	0.45
1:I:2878:LEU:HD13	1:I:2926:LEU:HD23	1.98	0.45
1:G:790:ARG:HG2	1:G:1627:ALA:HA	1.98	0.45
1:G:4561:THR:O	1:G:4565:LEU:N	2.50	0.45
1:B:633:LEU:HB3	1:B:1639:LEU:HD22	1.98	0.45
1:B:1716:ILE:HD11	1:B:1844:LEU:HD13	1.99	0.45
1:B:2155:LEU:HD21	1:B:2188:ASN:HD22	1.81	0.45
1:B:4041:ALA:HA	1:B:4044:MET:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4702:ASP:OD1	1:B:4778:TRP:NE1	2.44	0.45
1:B:4864:ASN:H	1:B:4874:MET:HG2	1.81	0.45
1:E:113:HIS:CE1	1:E:399:GLN:HA	2.51	0.45
1:E:790:ARG:HG2	1:E:1627:ALA:HA	1.99	0.45
1:E:4006:ASP:HB3	1:E:4009:GLN:HB2	1.98	0.45
1:E:4060:LYS:HE3	1:E:4064:MET:HB2	1.97	0.45
1:I:1076:ARG:NH2	1:I:1107:PRO:O	2.40	0.45
1:I:2102:VAL:HB	1:I:2124:LEU:HD12	1.99	0.45
1:I:4745:LEU:O	1:I:4749:GLU:N	2.50	0.45
1:I:4937:ILE:HA	1:I:4940:PHE:HD2	1.81	0.45
1:G:25:SER:HA	1:G:34:LYS:HA	1.98	0.45
1:G:633:LEU:HB3	1:G:1639:LEU:HD22	1.98	0.45
1:G:2517:UNK:O	1:G:2521:UNK:N	2.50	0.45
1:G:4107:GLU:O	1:G:4111:LEU:N	2.40	0.45
1:B:2451:LEU:O	1:B:2455:ALA:N	2.42	0.45
1:E:1284:UNK:HA	1:E:1463:UNK:HA	1.98	0.45
1:E:4215:ARG:HA	1:E:4218:ILE:HD12	1.99	0.45
1:I:3959:LYS:O	1:I:3963:ASN:N	2.48	0.45
1:B:1090:PHE:HD2	1:B:1202:LEU:HD11	1.81	0.45
1:B:1965:TYR:HE1	1:B:2027:ILE:HB	1.82	0.45
1:B:2764:GLU:HG3	1:B:2857:PRO:HB2	1.98	0.45
1:B:4200:THR:O	1:B:4204:GLN:N	2.37	0.45
1:B:4243:PHE:HE2	1:B:4668:LEU:HA	1.82	0.45
1:E:1090:PHE:HD2	1:E:1202:LEU:HD11	1.81	0.45
1:E:1095:VAL:HB	1:E:1199:VAL:HG23	1.98	0.45
1:E:2880:GLU:O	1:E:2884:ASN:N	2.42	0.45
1:E:3891:LEU:HB3	1:E:3899:PHE:HE2	1.81	0.45
1:I:870:ILE:HA	1:I:870:ILE:HD12	1.79	0.45
1:I:4561:THR:O	1:I:4565:LEU:N	2.50	0.45
1:G:317:ARG:N	1:G:347:PHE:O	2.48	0.45
1:G:1721:GLU:OE2	1:G:1725:ARG:NH2	2.39	0.45
1:G:3658:LYS:HA	1:G:3661:TRP:CD2	2.51	0.45
1:G:4215:ARG:HA	1:G:4218:ILE:HD12	1.99	0.45
1:E:497:TYR:HB3	1:E:500:ALA:HB2	1.98	0.45
1:E:4232:GLU:OE2	1:E:5017:ARG:NH1	2.50	0.45
1:E:4864:ASN:H	1:E:4874:MET:HG2	1.81	0.45
1:I:3885:PHE:HA	1:I:3888:LEU:HB2	1.98	0.45
1:G:242:ARG:NH1	1:G:481:GLU:OE1	2.44	0.45
1:B:664:PHE:HB2	1:B:746:CYS:HB2	1.98	0.45
1:B:1284:UNK:HA	1:B:1463:UNK:HA	1.98	0.45
1:E:218:HIS:HB3	1:E:392:ARG:HD3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2517:UNK:O	1:E:2521:UNK:N	2.50	0.45
1:I:111:HIS:N	1:I:116:MET:O	2.46	0.45
1:I:134:ASP:HA	1:I:192:ASP:HA	1.98	0.45
1:I:1965:TYR:HE1	1:I:2027:ILE:HB	1.82	0.45
1:G:2775:TRP:HZ3	1:G:2783:GLU:HA	1.82	0.45
1:G:2813:LEU:HD21	1:G:2926:LEU:HD11	1.99	0.45
2:A:69:GLY:N	2:A:103:LEU:O	2.48	0.45
1:B:113:HIS:CE1	1:B:399:GLN:HA	2.51	0.45
1:B:264:PRO:HG2	1:B:270:SER:HB2	1.99	0.45
1:B:617:ASN:HA	1:B:620:LEU:HB2	1.98	0.45
1:B:790:ARG:HG2	1:B:1627:ALA:HA	1.99	0.45
1:B:4147:LEU:HD23	1:B:4150:LEU:HD12	1.99	0.45
1:E:134:ASP:HA	1:E:192:ASP:HA	1.98	0.45
1:E:1716:ILE:HD11	1:E:1844:LEU:HD13	1.99	0.45
1:E:2775:TRP:HZ3	1:E:2783:GLU:HA	1.82	0.45
1:E:2813:LEU:HD21	1:E:2926:LEU:HD11	1.99	0.45
1:I:1290:UNK:HA	1:I:1598:GLN:HE22	1.81	0.45
1:I:2236:LEU:HD23	1:I:2275:VAL:HG21	1.98	0.45
1:I:2813:LEU:HD21	1:I:2926:LEU:HD11	1.99	0.45
1:I:3713:LYS:HG2	1:I:3715:LYS:H	1.82	0.45
1:G:1046:LEU:HD12	1:G:1053:ILE:HD11	1.99	0.45
1:G:2039:LEU:HA	1:G:2042:CYS:HB3	1.99	0.45
1:G:2212:VAL:O	1:G:2216:GLY:N	2.44	0.45
1:G:4147:LEU:HD23	1:G:4150:LEU:HD12	1.99	0.45
1:B:243:ARG:NH2	1:B:303:ASP:OD1	2.29	0.45
1:B:1243:PRO:HB2	1:B:1600:LEU:HD13	1.98	0.45
1:B:3730:ALA:O	1:B:3734:HIS:N	2.50	0.45
1:B:4215:ARG:HA	1:B:4218:ILE:HD12	1.99	0.45
1:E:1269:CYS:HA	1:E:1473:UNK:HA	1.97	0.45
1:E:3770:LEU:HD13	1:E:3770:LEU:HA	1.81	0.45
1:E:4745:LEU:O	1:E:4749:GLU:N	2.50	0.45
1:I:1978:ALA:O	1:I:1983:ALA:N	2.40	0.45
1:I:2384:ILE:O	1:I:2388:GLU:N	2.49	0.45
1:I:2517:UNK:O	1:I:2521:UNK:N	2.50	0.45
1:G:1258:ALA:HB3	1:G:1271:ARG:HB3	1.99	0.45
1:G:1653:LEU:HB3	1:G:1660:GLN:HB2	1.99	0.45
1:G:3663:LEU:H	1:G:3663:LEU:HG	1.57	0.45
1:G:3713:LYS:HG2	1:G:3715:LYS:H	1.82	0.45
1:G:3730:ALA:O	1:G:3734:HIS:N	2.50	0.45
1:B:2236:LEU:HD23	1:B:2275:VAL:HG21	1.99	0.44
1:B:2247:GLN:O	1:B:2279:SER:OG	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3770:LEU:HD13	1:B:3770:LEU:HA	1.81	0.44
1:B:4568:PHE:HA	1:B:4571:PHE:HD2	1.83	0.44
1:E:2102:VAL:HB	1:E:2124:LEU:HD12	1.99	0.44
1:E:2155:LEU:HD21	1:E:2188:ASN:HD22	1.81	0.44
1:E:3891:LEU:HB3	1:E:3899:PHE:CE2	2.51	0.44
1:E:4568:PHE:HA	1:E:4571:PHE:HD2	1.83	0.44
1:E:4937:ILE:HA	1:E:4940:PHE:HD2	1.81	0.44
1:I:264:PRO:HG2	1:I:270:SER:HB2	1.99	0.44
1:I:664:PHE:HB2	1:I:746:CYS:HB2	1.98	0.44
1:I:1258:ALA:HB3	1:I:1271:ARG:HB3	1.99	0.44
1:I:2155:LEU:HD21	1:I:2188:ASN:HD22	1.81	0.44
1:I:4041:ALA:HA	1:I:4044:MET:HB2	1.98	0.44
1:I:4147:LEU:HD23	1:I:4150:LEU:HD12	1.99	0.44
1:I:4204:GLN:NE2	1:I:4245:MET:SD	2.70	0.44
1:I:4215:ARG:HA	1:I:4218:ILE:HD12	1.99	0.44
1:G:243:ARG:NH2	1:G:303:ASP:OD1	2.29	0.44
1:G:350:HIS:N	1:G:355:LEU:O	2.48	0.44
1:G:793:LEU:HD12	1:G:797:HIS:HB2	1.99	0.44
1:G:2764:GLU:HG3	1:G:2857:PRO:HB2	1.98	0.44
2:F:69:GLY:HA2	2:F:104:LEU:HD23	1.99	0.44
1:B:218:HIS:HB3	1:B:392:ARG:HD3	1.99	0.44
1:B:2039:LEU:HA	1:B:2042:CYS:HB3	1.99	0.44
1:B:2212:VAL:O	1:B:2216:GLY:N	2.44	0.44
1:B:2813:LEU:HD21	1:B:2926:LEU:HD11	1.99	0.44
1:B:4745:LEU:O	1:B:4749:GLU:N	2.50	0.44
1:E:2327:GLY:HA2	1:E:2330:ARG:HD3	1.98	0.44
1:E:2466:LEU:HA	1:E:2469:ILE:HD12	2.00	0.44
1:E:3713:LYS:HG2	1:E:3715:LYS:H	1.82	0.44
1:E:4147:LEU:HD23	1:E:4150:LEU:HD12	1.99	0.44
1:E:4243:PHE:HE2	1:E:4668:LEU:HA	1.82	0.44
1:E:4687:TYR:HE1	1:E:4703:ARG:HG2	1.82	0.44
1:I:2039:LEU:HA	1:I:2042:CYS:HB3	1.99	0.44
1:I:2121:PHE:O	1:I:3725:TYR:OH	2.33	0.44
1:I:2764:GLU:HG3	1:I:2857:PRO:HB2	1.97	0.44
1:I:4006:ASP:HB3	1:I:4009:GLN:HB2	1.98	0.44
1:I:4243:PHE:HE2	1:I:4668:LEU:HA	1.82	0.44
1:G:497:TYR:HB3	1:G:500:ALA:HB2	1.98	0.44
1:G:614:VAL:HG22	1:G:616:SER:H	1.80	0.44
1:G:1243:PRO:HB2	1:G:1600:LEU:HD13	1.98	0.44
1:G:4243:PHE:HE2	1:G:4668:LEU:HA	1.82	0.44
1:B:241:GLN:O	1:B:289:ARG:NH1	2.37	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1685:LEU:HD22	1:B:1718:ILE:HD13	1.99	0.44
1:B:2327:GLY:HA2	1:B:2330:ARG:HD3	1.98	0.44
1:B:4006:ASP:HB3	1:B:4009:GLN:HB2	1.98	0.44
1:E:664:PHE:HB2	1:E:746:CYS:HB2	1.98	0.44
1:E:731:THR:OG1	1:E:1519:UNK:O	2.26	0.44
1:E:1258:ALA:HB3	1:E:1271:ARG:HB3	1.99	0.44
1:E:2236:LEU:HD23	1:E:2275:VAL:HG21	1.98	0.44
1:E:3930:ILE:HG23	1:E:3951:PHE:HE1	1.83	0.44
1:I:1095:VAL:HB	1:I:1199:VAL:HG23	1.98	0.44
1:I:2466:LEU:HA	1:I:2469:ILE:HD12	2.00	0.44
1:G:2878:LEU:HD13	1:G:2926:LEU:HD23	1.98	0.44
1:G:4702:ASP:OD1	1:G:4778:TRP:NE1	2.44	0.44
1:B:1258:ALA:HB3	1:B:1271:ARG:HB3	1.99	0.44
1:B:1721:GLU:OE2	1:B:1725:ARG:NH2	2.39	0.44
1:B:4687:TYR:HE1	1:B:4703:ARG:HG2	1.82	0.44
1:B:4837:LEU:O	1:B:4840:THR:OG1	2.31	0.44
1:E:356:TRP:O	1:E:379:HIS:N	2.43	0.44
1:I:317:ARG:N	1:I:347:PHE:O	2.48	0.44
1:I:3730:ALA:O	1:I:3734:HIS:N	2.50	0.44
1:I:4155:PRO:HB2	1:I:4156:HIS:CD2	2.53	0.44
1:I:4560:TYR:O	1:I:4564:PHE:N	2.44	0.44
1:B:793:LEU:HD12	1:B:797:HIS:HB2	1.99	0.44
1:B:2274:ASP:O	1:B:2278:ALA:N	2.50	0.44
1:B:4114:CYS:HB3	1:B:4131:ARG:HH22	1.82	0.44
1:B:4155:PRO:HB2	1:B:4156:HIS:CD2	2.53	0.44
1:B:4232:GLU:OE2	1:B:5017:ARG:NH1	2.50	0.44
1:B:5018:CYS:SG	1:B:5019:TRP:N	2.91	0.44
1:E:876:GLU:O	1:E:880:GLU:N	2.42	0.44
1:E:1838:PHE:HB3	1:E:1842:LEU:HD11	2.00	0.44
1:E:2451:LEU:O	1:E:2455:ALA:N	2.42	0.44
1:I:790:ARG:HG2	1:I:1627:ALA:HA	1.99	0.44
1:I:1269:CYS:HA	1:I:1473:UNK:HA	1.99	0.44
1:I:1970:GLN:HB2	1:I:3642:TYR:HA	2.00	0.44
1:I:5018:CYS:SG	1:I:5019:TRP:N	2.91	0.44
1:G:2102:VAL:HB	1:G:2124:LEU:HD12	1.98	0.44
1:G:2466:LEU:HA	1:G:2469:ILE:HD12	2.00	0.44
1:G:3885:PHE:HA	1:G:3888:LEU:HB2	1.98	0.44
1:G:4745:LEU:O	1:G:4749:GLU:N	2.50	0.44
1:G:5018:CYS:SG	1:G:5019:TRP:N	2.91	0.44
2:A:69:GLY:HA2	2:A:104:LEU:HD23	1.99	0.44
1:B:4987:ASN:HA	1:B:4990:PHE:HB2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1685:LEU:HD22	1:E:1718:ILE:HD13	1.99	0.44
1:E:1973:GLN:HA	1:E:1976:ARG:HB3	2.00	0.44
1:E:2039:LEU:HA	1:E:2042:CYS:HB3	1.99	0.44
1:E:5018:CYS:SG	1:E:5019:TRP:N	2.91	0.44
1:I:876:GLU:O	1:I:880:GLU:N	2.42	0.44
1:I:1046:LEU:HD12	1:I:1053:ILE:HD11	1.99	0.44
1:I:1716:ILE:HD11	1:I:1844:LEU:HD13	1.99	0.44
1:I:2274:ASP:O	1:I:2278:ALA:N	2.50	0.44
1:I:2793:PRO:HG3	1:I:2855:TYR:CZ	2.53	0.44
1:G:1838:PHE:HB3	1:G:1842:LEU:HD11	2.00	0.44
1:G:2006:ILE:O	1:G:2010:LEU:N	2.43	0.44
1:G:2236:LEU:HD23	1:G:2275:VAL:HG21	1.98	0.44
1:G:2793:PRO:HG3	1:G:2855:TYR:CZ	2.53	0.44
1:G:4568:PHE:HA	1:G:4571:PHE:HD2	1.82	0.44
1:B:1046:LEU:HD12	1:B:1053:ILE:HD11	1.99	0.44
1:B:1838:PHE:HB3	1:B:1842:LEU:HD11	2.00	0.44
1:E:793:LEU:HD12	1:E:797:HIS:HB2	1.99	0.44
1:E:2212:VAL:O	1:E:2216:GLY:N	2.44	0.44
1:E:4108:ILE:HA	1:E:4111:LEU:HD12	1.99	0.44
1:I:224:HIS:N	1:I:229:GLU:O	2.42	0.44
1:I:733:PRO:HD2	1:I:763:PRO:HD2	2.00	0.44
1:I:3930:ILE:HG23	1:I:3951:PHE:HE1	1.83	0.44
1:G:1293:UNK:N	1:G:1456:UNK:O	2.50	0.44
1:G:3960:GLN:HA	1:G:3963:ASN:HD22	1.83	0.44
2:J:29:MET:HB3	2:J:98:ILE:HB	2.00	0.44
1:B:685:GLY:N	1:B:780:VAL:O	2.35	0.44
1:B:1095:VAL:HB	1:B:1199:VAL:HG23	1.99	0.44
1:B:2517:UNK:O	1:B:2521:UNK:N	2.51	0.44
1:B:2760:GLU:O	1:B:2764:GLU:N	2.48	0.44
1:B:2788:HIS:CE1	1:B:2790:MET:HB2	2.53	0.44
1:B:3885:PHE:HA	1:B:3888:LEU:HB2	1.99	0.44
1:B:4657:CYS:O	1:B:4661:TYR:N	2.49	0.44
1:E:2793:PRO:HG3	1:E:2855:TYR:CZ	2.53	0.44
1:E:3461:UNK:O	1:E:3465:UNK:N	2.51	0.44
1:E:4155:PRO:HB2	1:E:4156:HIS:CD2	2.53	0.44
1:I:2788:HIS:CE1	1:I:2790:MET:HB2	2.53	0.44
1:G:4108:ILE:HA	1:G:4111:LEU:HD12	1.99	0.44
1:G:4232:GLU:OE2	1:G:5017:ARG:NH1	2.50	0.44
1:G:4687:TYR:HE1	1:G:4703:ARG:HG2	1.82	0.44
1:B:733:PRO:HD2	1:B:763:PRO:HD2	2.00	0.44
1:B:1653:LEU:HB3	1:B:1660:GLN:HB2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1704:PRO:HG2	1:B:1707:LEU:HB2	2.00	0.44
1:B:1970:GLN:HB2	1:B:3642:TYR:HA	2.00	0.44
1:B:1973:GLN:HA	1:B:1976:ARG:HB3	2.00	0.44
1:B:2452:ARG:NH1	1:I:175:SER:O	2.45	0.44
1:B:2466:LEU:HA	1:B:2469:ILE:HD12	2.00	0.44
1:B:3891:LEU:HB3	1:B:3899:PHE:HE2	1.82	0.44
1:E:1735:ILE:HG23	1:E:1771:LEU:HD23	2.00	0.44
1:E:4987:ASN:HA	1:E:4990:PHE:HB2	2.00	0.44
1:I:1653:LEU:HB3	1:I:1660:GLN:HB2	1.99	0.44
1:I:1973:GLN:HA	1:I:1976:ARG:HB3	2.00	0.44
1:I:4687:TYR:HE1	1:I:4703:ARG:HG2	1.82	0.44
1:G:45:ARG:HD2	1:G:138:GLN:HB2	2.00	0.44
1:G:1023:PRO:O	1:G:1027:LEU:N	2.51	0.44
1:G:1965:TYR:HE1	1:G:2027:ILE:HB	1.82	0.44
1:G:1973:GLN:HA	1:G:1976:ARG:HB3	2.00	0.44
1:B:1234:VAL:HG12	1:B:1236:THR:H	1.83	0.43
1:E:4561:THR:O	1:E:4565:LEU:N	2.50	0.43
1:I:1234:VAL:HG12	1:I:1236:THR:H	1.83	0.43
1:I:1293:UNK:N	1:I:1456:UNK:O	2.50	0.43
1:I:3361:UNK:O	1:I:3365:UNK:N	2.51	0.43
1:I:3461:UNK:O	1:I:3465:UNK:N	2.51	0.43
1:I:3891:LEU:HB3	1:I:3899:PHE:HE2	1.81	0.43
1:I:4114:CYS:HB3	1:I:4131:ARG:HH22	1.82	0.43
1:G:264:PRO:HG2	1:G:270:SER:HB2	1.99	0.43
1:G:668:VAL:O	1:G:741:GLU:N	2.50	0.43
1:G:1716:ILE:HD11	1:G:1844:LEU:HD13	1.99	0.43
1:G:2788:HIS:CE1	1:G:2790:MET:HB2	2.53	0.43
1:G:3891:LEU:HB3	1:G:3899:PHE:HE2	1.82	0.43
1:G:3994:HIS:O	1:G:3998:HIS:ND1	2.42	0.43
1:G:4987:ASN:HA	1:G:4990:PHE:HB2	2.00	0.43
2:J:7:ILE:N	2:J:71:ARG:O	2.47	0.43
2:J:69:GLY:N	2:J:103:LEU:O	2.48	0.43
1:B:1082:THR:HG21	1:B:1107:PRO:HG3	1.99	0.43
1:B:1735:ILE:HG23	1:B:1771:LEU:HD23	2.01	0.43
1:B:2765:LYS:HA	1:B:2859:PRO:HG3	2.00	0.43
1:B:3713:LYS:HG2	1:B:3715:LYS:H	1.82	0.43
1:B:4101:LYS:HG3	1:I:4731:ILE:HA	2.00	0.43
1:E:2247:GLN:O	1:E:2279:SER:OG	2.35	0.43
1:E:4114:CYS:HB3	1:E:4131:ARG:HH22	1.82	0.43
1:E:4187:SER:OG	1:E:4191:GLU:OE2	2.36	0.43
1:I:242:ARG:NH1	1:I:481:GLU:OE1	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:1023:PRO:O	1:I:1027:LEU:N	2.51	0.43
1:I:1704:PRO:HG2	1:I:1707:LEU:HB2	2.00	0.43
1:I:2247:GLN:O	1:I:2279:SER:OG	2.35	0.43
1:I:2775:TRP:HZ3	1:I:2783:GLU:HA	1.82	0.43
1:I:3645:PRO:O	1:I:3649:ALA:N	2.46	0.43
1:I:3960:GLN:HA	1:I:3963:ASN:HD22	1.83	0.43
1:I:4201:ASN:ND2	1:I:4993:MET:SD	2.92	0.43
1:I:4568:PHE:HA	1:I:4571:PHE:HD2	1.83	0.43
1:G:2247:GLN:O	1:G:2279:SER:OG	2.35	0.43
1:G:3930:ILE:HG23	1:G:3951:PHE:HE1	1.83	0.43
1:G:4142:ASN:HA	1:G:4145:VAL:HG12	2.01	0.43
1:G:4187:SER:OG	1:G:4191:GLU:OE2	2.36	0.43
1:B:345:LEU:HD23	1:B:389:PHE:HB3	2.01	0.43
1:B:894:GLY:HA3	1:B:903:LEU:HD22	2.00	0.43
1:B:4108:ILE:HA	1:B:4111:LEU:HD12	1.99	0.43
1:B:4142:ASN:HA	1:B:4145:VAL:HG12	2.01	0.43
1:E:264:PRO:HG2	1:E:270:SER:HB2	1.99	0.43
1:E:2121:PHE:O	1:E:3725:TYR:OH	2.33	0.43
1:E:2440:MET:O	1:E:2444:GLN:N	2.40	0.43
1:E:2869:ARG:HA	1:E:2872:GLN:HB3	2.01	0.43
1:I:45:ARG:HD2	1:I:138:GLN:HB2	2.00	0.43
1:I:1838:PHE:HB3	1:I:1842:LEU:HD11	2.00	0.43
1:G:950:LEU:HD22	1:G:970:LEU:HB3	2.00	0.43
1:G:1970:GLN:HB2	1:G:3642:TYR:HA	2.00	0.43
1:G:2384:ILE:O	1:G:2388:GLU:N	2.49	0.43
2:F:29:MET:HB3	2:F:98:ILE:HB	2.00	0.43
1:B:356:TRP:O	1:B:379:HIS:N	2.43	0.43
1:B:1023:PRO:O	1:B:1027:LEU:N	2.51	0.43
1:B:2332:LEU:HA	1:B:2335:LEU:HB2	2.00	0.43
1:B:4930:ALA:O	1:B:4934:GLY:N	2.48	0.43
1:E:1970:GLN:HB2	1:E:3642:TYR:HA	2.00	0.43
1:E:4763:GLY:O	1:E:4766:THR:OG1	2.25	0.43
1:I:4987:ASN:HA	1:I:4990:PHE:HB2	2.00	0.43
1:G:1082:THR:HG21	1:G:1107:PRO:HG3	1.99	0.43
1:G:1685:LEU:HD22	1:G:1718:ILE:HD13	1.99	0.43
1:G:4114:CYS:HB3	1:G:4131:ARG:HH22	1.83	0.43
1:G:4155:PRO:HB2	1:G:4156:HIS:CD2	2.53	0.43
2:A:29:MET:HB3	2:A:98:ILE:HB	2.00	0.43
2:J:69:GLY:HA2	2:J:104:LEU:HD23	1.99	0.43
1:B:242:ARG:NH1	1:B:481:GLU:OE1	2.44	0.43
1:B:4937:ILE:HA	1:B:4940:PHE:HD2	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:733:PRO:HD2	1:E:763:PRO:HD2	2.00	0.43
1:E:870:ILE:HD12	1:E:870:ILE:HA	1.80	0.43
1:E:894:GLY:HA3	1:E:903:LEU:HD22	2.00	0.43
1:E:950:LEU:HD22	1:E:970:LEU:HB3	2.00	0.43
1:E:1653:LEU:HB3	1:E:1660:GLN:HB2	1.99	0.43
1:E:1704:PRO:HG2	1:E:1707:LEU:HB2	2.00	0.43
1:E:2332:LEU:HA	1:E:2335:LEU:HB2	2.00	0.43
1:I:313:SER:HB3	1:I:351:VAL:HB	2.01	0.43
1:I:1243:PRO:HB2	1:I:1600:LEU:HD13	1.98	0.43
1:I:4142:ASN:HA	1:I:4145:VAL:HG12	2.01	0.43
1:I:4232:GLU:OE2	1:I:5017:ARG:NH1	2.50	0.43
1:G:733:PRO:HD2	1:G:763:PRO:HD2	2.00	0.43
1:B:950:LEU:HD22	1:B:970:LEU:HB3	2.00	0.43
1:B:1269:CYS:HA	1:B:1473:UNK:HA	1.99	0.43
1:B:2775:TRP:HZ3	1:B:2783:GLU:HA	1.82	0.43
1:B:2793:PRO:HG3	1:B:2855:TYR:CZ	2.53	0.43
1:E:313:SER:HB3	1:E:351:VAL:HB	2.01	0.43
1:E:345:LEU:HD23	1:E:389:PHE:HB3	2.01	0.43
1:E:2788:HIS:CE1	1:E:2790:MET:HB2	2.53	0.43
1:E:3960:GLN:HA	1:E:3963:ASN:HD22	1.83	0.43
1:I:583:ILE:HD13	1:I:621:ILE:HD13	2.01	0.43
1:I:788:LYS:HG2	1:I:1630:CYS:N	2.32	0.43
1:I:2760:GLU:O	1:I:2764:GLU:N	2.48	0.43
1:G:988:LEU:O	1:G:992:GLY:N	2.45	0.43
1:G:1747:LEU:HD13	1:G:1760:HIS:CE1	2.54	0.43
1:G:2765:LYS:HA	1:G:2859:PRO:HG3	2.00	0.43
1:G:2869:ARG:HA	1:G:2872:GLN:HB3	2.01	0.43
1:G:4048:LEU:HD23	1:G:4048:LEU:HA	1.85	0.43
1:G:4657:CYS:O	1:G:4661:TYR:N	2.49	0.43
1:E:1046:LEU:HD12	1:E:1053:ILE:HD11	1.99	0.43
1:E:2765:LYS:HA	1:E:2859:PRO:HG3	2.00	0.43
1:E:4142:ASN:HA	1:E:4145:VAL:HG12	2.01	0.43
1:E:4201:ASN:ND2	1:E:4993:MET:SD	2.92	0.43
1:I:2765:LYS:HA	1:I:2859:PRO:HG3	2.00	0.43
1:I:3818:ASP:O	1:I:3822:ASP:N	2.52	0.43
1:G:1665:HIS:HA	1:G:1668:ARG:HG2	2.01	0.43
1:G:4560:TYR:O	1:G:4564:PHE:N	2.44	0.43
2:F:69:GLY:N	2:F:103:LEU:O	2.48	0.43
1:B:550:LYS:HD3	1:B:550:LYS:HA	1.87	0.43
1:B:668:VAL:O	1:B:741:GLU:N	2.50	0.43
1:B:3754:GLU:O	1:B:3758:MET:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3959:LYS:O	1:B:3963:ASN:N	2.47	0.43
1:B:3960:GLN:HA	1:B:3963:ASN:HD22	1.83	0.43
1:B:4201:ASN:ND2	1:B:4993:MET:SD	2.92	0.43
1:E:457:GLU:OE1	1:E:464:LYS:NZ	2.40	0.43
1:E:988:LEU:O	1:E:992:GLY:N	2.45	0.43
1:E:3646:THR:O	1:E:3650:CYS:N	2.49	0.43
1:I:345:LEU:HD23	1:I:389:PHE:HB3	2.01	0.43
1:I:1685:LEU:HD22	1:I:1718:ILE:HD13	1.99	0.43
1:I:2006:ILE:O	1:I:2010:LEU:N	2.43	0.43
1:I:2332:LEU:HA	1:I:2335:LEU:HB2	2.00	0.43
1:G:1735:ILE:HG23	1:G:1771:LEU:HD23	2.01	0.43
1:G:2332:LEU:HA	1:G:2335:LEU:HB2	2.00	0.43
1:G:4828:SER:O	1:G:4832:HIS:N	2.51	0.43
1:B:1747:LEU:HD13	1:B:1760:HIS:CE1	2.54	0.43
1:B:2869:ARG:HA	1:B:2872:GLN:HB3	2.01	0.43
1:E:1234:VAL:HG12	1:E:1236:THR:H	1.83	0.43
1:E:3663:LEU:H	1:E:3663:LEU:HG	1.57	0.43
1:I:3842:LEU:O	1:I:3929:SER:OG	2.31	0.43
1:G:450:GLY:HA2	1:G:453:GLU:HB2	2.01	0.43
1:G:1094:ALA:HB3	1:G:1147:ASP:HB3	2.00	0.43
1:B:313:SER:HB3	1:B:351:VAL:HB	2.01	0.43
1:B:2969:UNK:O	1:B:2973:UNK:N	2.52	0.43
1:B:3930:ILE:HG23	1:B:3951:PHE:HE1	1.83	0.43
1:B:4019:LEU:O	1:B:4023:MET:N	2.46	0.43
1:B:4804:TYR:HB3	1:B:4806:ASN:HD22	1.84	0.43
1:E:1082:THR:HG21	1:E:1107:PRO:HG3	1.99	0.43
1:E:4780:PHE:HA	1:E:4783:ILE:HD12	2.01	0.43
1:I:950:LEU:HD22	1:I:970:LEU:HB3	2.00	0.43
1:I:1082:THR:HG21	1:I:1107:PRO:HG3	1.99	0.43
1:I:3754:GLU:O	1:I:3758:MET:N	2.52	0.43
1:G:1130:GLN:HG2	1:G:1138:PRO:HA	2.01	0.43
1:G:2132:GLY:O	1:G:2136:ARG:N	2.52	0.43
1:G:4780:PHE:HA	1:G:4783:ILE:HD12	2.01	0.43
1:B:21:VAL:HG22	1:B:203:ASN:HB2	2.01	0.42
1:B:45:ARG:HD2	1:B:138:GLN:HB2	2.00	0.42
1:B:450:GLY:HA2	1:B:453:GLU:HB2	2.01	0.42
1:B:534:ARG:NH2	1:B:573:GLU:OE2	2.51	0.42
1:E:102:LEU:HB2	1:E:105:HIS:CE1	2.54	0.42
1:E:668:VAL:O	1:E:741:GLU:N	2.50	0.42
1:E:1094:ALA:HB3	1:E:1147:ASP:HB3	2.00	0.42
1:E:1665:HIS:HA	1:E:1668:ARG:HG2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4048:LEU:HD23	1:E:4048:LEU:HA	1.85	0.42
1:I:662:TRP:HH2	1:I:814:ALA:H	1.67	0.42
1:I:1735:ILE:HG23	1:I:1771:LEU:HD23	2.01	0.42
1:I:2297:LYS:O	1:I:2301:TYR:N	2.44	0.42
1:I:4804:TYR:HB3	1:I:4806:ASN:HD22	1.84	0.42
1:G:313:SER:HB3	1:G:351:VAL:HB	2.01	0.42
1:G:1704:PRO:HG2	1:G:1707:LEU:HB2	2.00	0.42
1:G:2297:LYS:O	1:G:2301:TYR:N	2.44	0.42
1:G:4982:GLU:OE1	1:G:4982:GLU:N	2.52	0.42
2:H:69:GLY:HA2	2:H:104:LEU:HD23	1.99	0.42
1:B:583:ILE:HD13	1:B:621:ILE:HD13	2.01	0.42
1:B:1665:HIS:HA	1:B:1668:ARG:HG2	2.01	0.42
1:B:4780:PHE:HA	1:B:4783:ILE:HD12	2.01	0.42
1:E:1023:PRO:O	1:E:1027:LEU:N	2.51	0.42
1:E:2384:ILE:O	1:E:2388:GLU:N	2.49	0.42
1:I:1130:GLN:HG2	1:I:1138:PRO:HA	2.01	0.42
1:I:1747:LEU:HD13	1:I:1760:HIS:CE1	2.54	0.42
1:I:3755:GLU:HA	1:I:3758:MET:HB3	2.02	0.42
1:I:4108:ILE:HA	1:I:4111:LEU:HD12	1.99	0.42
1:G:345:LEU:HD23	1:G:389:PHE:HB3	2.01	0.42
1:G:788:LYS:HG2	1:G:1630:CYS:N	2.32	0.42
1:G:1234:VAL:HG12	1:G:1236:THR:H	1.83	0.42
1:G:4019:LEU:O	1:G:4023:MET:N	2.45	0.42
1:G:4201:ASN:ND2	1:G:4993:MET:SD	2.92	0.42
2:H:12:GLY:HA2	2:H:70:GLN:HE21	1.84	0.42
1:B:681:HIS:HB3	1:B:784:SER:HB3	2.01	0.42
1:B:3812:VAL:O	1:B:3816:MET:N	2.46	0.42
1:E:21:VAL:HG22	1:E:203:ASN:HB2	2.01	0.42
1:E:1072:VAL:HG22	1:E:1195:GLY:HA2	2.01	0.42
1:E:2274:ASP:O	1:E:2278:ALA:N	2.50	0.42
1:E:4657:CYS:O	1:E:4661:TYR:N	2.49	0.42
1:E:4982:GLU:OE1	1:E:4982:GLU:N	2.52	0.42
1:I:3906:GLN:H	1:I:3912:THR:HG23	1.85	0.42
1:G:583:ILE:HD13	1:G:621:ILE:HD13	2.01	0.42
1:G:893:TYR:HD1	1:G:907:LEU:HB2	1.84	0.42
1:G:2004:GLU:O	1:G:2008:MET:N	2.50	0.42
1:G:3818:ASP:O	1:G:3822:ASP:N	2.52	0.42
1:B:111:HIS:CD2	1:B:114:SER:H	2.38	0.42
1:B:662:TRP:HH2	1:B:814:ALA:H	1.68	0.42
1:B:1574:PRO:HB3	1:B:1589:PRO:HA	2.01	0.42
1:B:1679:ASN:O	1:B:1683:HIS:ND1	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4577:LEU:HG	1:B:4580:TYR:HE2	1.85	0.42
1:E:77:ALA:O	1:E:81:MET:N	2.49	0.42
1:E:111:HIS:CD2	1:E:114:SER:H	2.38	0.42
1:E:350:HIS:N	1:E:355:LEU:O	2.48	0.42
1:E:1130:GLN:HG2	1:E:1138:PRO:HA	2.01	0.42
1:E:1574:PRO:HB3	1:E:1589:PRO:HA	2.01	0.42
1:I:102:LEU:HB2	1:I:105:HIS:CE1	2.54	0.42
1:I:894:GLY:HA3	1:I:903:LEU:HD22	2.00	0.42
1:I:4577:LEU:HG	1:I:4580:TYR:HE2	1.85	0.42
1:I:4780:PHE:HA	1:I:4783:ILE:HD12	2.01	0.42
1:I:4828:SER:O	1:I:4832:HIS:N	2.51	0.42
1:G:111:HIS:CD2	1:G:114:SER:H	2.38	0.42
1:G:1290:UNK:HA	1:G:1598:GLN:HE22	1.84	0.42
1:G:3906:GLN:H	1:G:3912:THR:HG23	1.84	0.42
1:G:4837:LEU:O	1:G:4840:THR:OG1	2.31	0.42
1:B:1130:GLN:HG2	1:B:1138:PRO:HA	2.01	0.42
1:B:3461:UNK:O	1:B:3465:UNK:N	2.52	0.42
1:B:4974:GLY:O	1:B:4978:HIS:N	2.46	0.42
1:E:224:HIS:N	1:E:229:GLU:O	2.42	0.42
1:E:379:HIS:HD2	1:E:382:GLY:H	1.68	0.42
1:E:450:GLY:HA2	1:E:453:GLU:HB2	2.01	0.42
1:E:1747:LEU:HD13	1:E:1760:HIS:CE1	2.54	0.42
1:I:534:ARG:NH2	1:I:573:GLU:OE2	2.51	0.42
1:I:1665:HIS:HA	1:I:1668:ARG:HG2	2.01	0.42
1:I:2132:GLY:O	1:I:2136:ARG:N	2.51	0.42
1:I:2869:ARG:HA	1:I:2872:GLN:HB3	2.01	0.42
1:I:4187:SER:OG	1:I:4191:GLU:OE2	2.36	0.42
1:I:4930:ALA:O	1:I:4934:GLY:N	2.48	0.42
1:I:4982:GLU:N	1:I:4982:GLU:OE1	2.52	0.42
1:G:102:LEU:HB2	1:G:105:HIS:CE1	2.54	0.42
2:A:12:GLY:HA2	2:A:70:GLN:HE21	1.84	0.42
1:B:893:TYR:HD1	1:B:907:LEU:HB2	1.84	0.42
1:B:1094:ALA:HB3	1:B:1147:ASP:HB3	2.00	0.42
1:B:4561:THR:O	1:B:4565:LEU:N	2.50	0.42
1:I:450:GLY:HA2	1:I:453:GLU:HB2	2.01	0.42
1:I:681:HIS:HB3	1:I:784:SER:HB3	2.01	0.42
1:I:893:TYR:HD1	1:I:907:LEU:HB2	1.84	0.42
1:I:2908:TYR:CZ	1:I:2916:LYS:HG2	2.55	0.42
1:G:2760:GLU:O	1:G:2764:GLU:N	2.48	0.42
1:G:4804:TYR:HB3	1:G:4806:ASN:HD22	1.84	0.42
1:G:5022:PHE:HA	1:G:5023:PRO:HD3	1.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:2:VAL:HG21	2:J:61:GLU:HB2	2.02	0.42
2:J:12:GLY:HA2	2:J:70:GLN:HE21	1.84	0.42
1:B:102:LEU:HB2	1:B:105:HIS:CE1	2.54	0.42
1:B:1293:UNK:N	1:B:1456:UNK:O	2.52	0.42
1:B:2191:PHE:HD1	1:B:2198:MET:HG3	1.84	0.42
1:B:4937:ILE:O	1:B:4941:GLY:N	2.41	0.42
1:E:45:ARG:HD2	1:E:138:GLN:HB2	2.01	0.42
1:E:4204:GLN:NE2	1:E:4245:MET:SD	2.70	0.42
1:I:838:HIS:CE1	1:I:1201:HIS:HD2	2.38	0.42
1:I:1094:ALA:HB3	1:I:1147:ASP:HB3	2.00	0.42
1:I:2009:LEU:HA	1:I:2012:PHE:CE2	2.55	0.42
1:I:4671:PHE:HA	1:I:4674:GLU:HB2	2.02	0.42
1:I:5022:PHE:HA	1:I:5023:PRO:HD3	1.82	0.42
1:G:243:ARG:HA	1:G:301:VAL:HB	2.02	0.42
1:G:894:GLY:HA3	1:G:903:LEU:HD22	2.00	0.42
1:G:2274:ASP:O	1:G:2278:ALA:N	2.50	0.42
1:G:4549:VAL:HA	1:G:4552:LEU:HB3	2.01	0.42
1:G:4577:LEU:HG	1:G:4580:TYR:HE2	1.85	0.42
2:F:12:GLY:HA2	2:F:70:GLN:HE21	1.84	0.42
2:H:2:VAL:HG21	2:H:61:GLU:HB2	2.02	0.42
2:H:29:MET:HB3	2:H:98:ILE:HB	2.00	0.42
1:B:2009:LEU:HA	1:B:2012:PHE:CE2	2.55	0.42
1:B:4671:PHE:HA	1:B:4674:GLU:HB2	2.02	0.42
1:B:4828:SER:O	1:B:4832:HIS:N	2.51	0.42
1:B:5022:PHE:HA	1:B:5023:PRO:HD3	1.83	0.42
1:E:583:ILE:HD13	1:E:621:ILE:HD13	2.01	0.42
1:E:1679:ASN:O	1:E:1683:HIS:ND1	2.40	0.42
1:E:3959:LYS:O	1:E:3963:ASN:N	2.47	0.42
1:E:4804:TYR:HB3	1:E:4806:ASN:HD22	1.84	0.42
1:I:181:HIS:ND1	1:I:195:PHE:HB2	2.35	0.42
1:I:243:ARG:HA	1:I:301:VAL:HB	2.02	0.42
1:I:2191:PHE:HD1	1:I:2198:MET:HG3	1.84	0.42
1:G:111:HIS:HB2	1:G:137:LEU:HD11	2.02	0.42
1:G:3992:PHE:O	1:G:3996:PHE:N	2.43	0.42
2:A:2:VAL:HG21	2:A:61:GLU:HB2	2.02	0.42
1:B:1290:UNK:HA	1:B:1598:GLN:HE22	1.85	0.42
1:B:2908:TYR:CZ	1:B:2916:LYS:HG2	2.55	0.42
1:B:4899:ASP:OD1	1:E:4892:ARG:NH2	2.49	0.42
1:B:4982:GLU:OE1	1:B:4982:GLU:N	2.52	0.42
1:E:662:TRP:HH2	1:E:814:ALA:H	1.68	0.42
1:E:3812:VAL:O	1:E:3816:MET:N	2.46	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:21:VAL:HG22	1:I:203:ASN:HB2	2.01	0.42
1:I:111:HIS:CD2	1:I:114:SER:H	2.38	0.42
1:I:1072:VAL:HG22	1:I:1195:GLY:HA2	2.01	0.42
1:I:4834:GLY:HA2	1:I:4837:LEU:HB2	2.02	0.42
1:G:1164:LEU:N	1:G:1167:GLU:O	2.50	0.42
1:G:4767:TRP:HE3	1:G:4770:SER:HB2	1.85	0.42
2:H:55:VAL:HG23	2:H:60:GLU:HB2	2.02	0.42
1:B:1072:VAL:HG22	1:B:1195:GLY:HA2	2.01	0.42
1:B:3755:GLU:HA	1:B:3758:MET:HB3	2.02	0.42
1:E:111:HIS:HB2	1:E:137:LEU:HD11	2.02	0.42
1:E:1164:LEU:N	1:E:1167:GLU:O	2.50	0.42
1:E:3906:GLN:H	1:E:3912:THR:HG23	1.85	0.42
1:G:21:VAL:HG22	1:G:203:ASN:HB2	2.01	0.42
1:G:838:HIS:CE1	1:G:1201:HIS:HD2	2.38	0.42
1:B:181:HIS:ND1	1:B:195:PHE:HB2	2.35	0.41
1:B:214:VAL:HB	1:B:339:ILE:HB	2.02	0.41
1:B:3646:THR:O	1:B:3650:CYS:N	2.49	0.41
1:E:119:SER:HA	1:E:146:CYS:HA	2.02	0.41
1:E:2009:LEU:HA	1:E:2012:PHE:CE2	2.55	0.41
1:E:4019:LEU:O	1:E:4023:MET:N	2.45	0.41
1:E:4671:PHE:HA	1:E:4674:GLU:HB2	2.02	0.41
1:E:4767:TRP:HE3	1:E:4770:SER:HB2	1.85	0.41
1:E:4860:ARG:NH2	1:G:4582:VAL:HG21	2.34	0.41
1:I:1574:PRO:HB3	1:I:1589:PRO:HA	2.01	0.41
1:I:4220:ASP:O	1:I:4224:GLU:N	2.49	0.41
1:G:181:HIS:ND1	1:G:195:PHE:HB2	2.35	0.41
1:G:232:THR:OG1	1:G:233:ILE:N	2.53	0.41
1:G:379:HIS:HD2	1:G:382:GLY:H	1.68	0.41
1:G:534:ARG:NH2	1:G:573:GLU:OE2	2.51	0.41
1:G:662:TRP:HH2	1:G:814:ALA:H	1.68	0.41
2:J:55:VAL:HG23	2:J:60:GLU:HB2	2.02	0.41
1:B:379:HIS:HD2	1:B:382:GLY:H	1.68	0.41
1:B:3645:PRO:O	1:B:3649:ALA:N	2.46	0.41
1:E:139:GLU:O	1:E:141:ALA:N	2.53	0.41
1:E:3755:GLU:HA	1:E:3758:MET:HB3	2.02	0.41
1:I:886:ARG:HB3	1:I:891:TRP:HB2	2.02	0.41
1:I:4767:TRP:HE3	1:I:4770:SER:HB2	1.85	0.41
1:G:119:SER:HA	1:G:146:CYS:HA	2.02	0.41
1:G:1072:VAL:HG22	1:G:1195:GLY:HA2	2.01	0.41
1:G:1574:PRO:HB3	1:G:1589:PRO:HA	2.01	0.41
1:G:2908:TYR:CZ	1:G:2916:LYS:HG2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3818:ASP:O	1:B:3822:ASP:N	2.52	0.41
1:B:4677:LEU:HD13	1:B:4677:LEU:HA	1.91	0.41
1:E:232:THR:OG1	1:E:233:ILE:N	2.54	0.41
1:E:1259:ARG:NH2	1:E:1595:LEU:O	2.54	0.41
1:E:2908:TYR:CZ	1:E:2916:LYS:HG2	2.54	0.41
1:I:214:VAL:HB	1:I:339:ILE:HB	2.03	0.41
1:I:4200:THR:O	1:I:4204:GLN:N	2.37	0.41
1:B:232:THR:OG1	1:B:233:ILE:N	2.54	0.41
1:B:243:ARG:HA	1:B:301:VAL:HB	2.02	0.41
1:E:214:VAL:HB	1:E:339:ILE:HB	2.02	0.41
1:E:2191:PHE:HD1	1:E:2198:MET:HG3	1.85	0.41
1:E:3754:GLU:O	1:E:3758:MET:N	2.51	0.41
1:E:3850:GLN:HA	1:E:3853:ALA:HB3	2.03	0.41
1:E:4110:PHE:HA	1:E:4113:SER:HB3	2.03	0.41
1:I:139:GLU:O	1:I:141:ALA:N	2.54	0.41
1:I:2878:LEU:HD23	1:I:2878:LEU:HA	1.91	0.41
1:I:4710:SER:OG	1:I:4772:ASP:OD2	2.25	0.41
1:I:4942:GLU:O	1:I:4946:GLN:N	2.47	0.41
1:G:139:GLU:O	1:G:141:ALA:N	2.53	0.41
1:G:886:ARG:HB3	1:G:891:TRP:HB2	2.02	0.41
1:G:2007:ASN:OD1	1:G:3656:SER:OG	2.33	0.41
1:G:4671:PHE:HA	1:G:4674:GLU:HB2	2.02	0.41
2:J:14:THR:N	2:J:67:SER:OG	2.54	0.41
1:B:290:TYR:O	1:B:302:VAL:N	2.42	0.41
1:B:3361:UNK:O	1:B:3365:UNK:N	2.54	0.41
1:E:4577:LEU:HG	1:E:4580:TYR:HE2	1.84	0.41
1:I:685:GLY:N	1:I:780:VAL:O	2.35	0.41
1:I:1096:THR:HG23	1:I:1199:VAL:HG22	2.03	0.41
1:I:4549:VAL:HA	1:I:4552:LEU:HB3	2.01	0.41
1:I:4583:SER:O	1:I:4628:VAL:N	2.49	0.41
1:G:681:HIS:HB3	1:G:784:SER:HB3	2.01	0.41
1:G:3361:UNK:O	1:G:3365:UNK:N	2.53	0.41
2:H:14:THR:N	2:H:67:SER:OG	2.54	0.41
1:B:139:GLU:O	1:B:141:ALA:N	2.53	0.41
1:B:838:HIS:CE1	1:B:1201:HIS:HD2	2.38	0.41
1:B:3906:GLN:H	1:B:3912:THR:HG23	1.84	0.41
1:B:4110:PHE:HA	1:B:4113:SER:HB3	2.03	0.41
1:B:4767:TRP:HE3	1:B:4770:SER:HB2	1.85	0.41
1:E:181:HIS:ND1	1:E:195:PHE:HB2	2.35	0.41
1:E:886:ARG:HB3	1:E:891:TRP:HB2	2.02	0.41
1:E:1639:LEU:N	1:E:1648:MET:O	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1687:SER:OG	2:F:90:VAL:HG22	2.20	0.41
1:E:4549:VAL:HA	1:E:4552:LEU:HB3	2.01	0.41
1:G:4930:ALA:O	1:G:4934:GLY:N	2.48	0.41
1:B:77:ALA:O	1:B:81:MET:N	2.49	0.41
1:B:1774:PRO:HG2	1:B:1776:HIS:CE1	2.56	0.41
1:B:2121:PHE:O	1:B:3725:TYR:OH	2.33	0.41
1:B:3850:GLN:HA	1:B:3853:ALA:HB3	2.03	0.41
1:E:243:ARG:HA	1:E:301:VAL:HB	2.02	0.41
1:E:1286:UNK:HA	1:E:1461:UNK:HA	2.03	0.41
1:E:2132:GLY:O	1:E:2136:ARG:N	2.52	0.41
1:E:4062:PHE:O	1:E:4066:LEU:N	2.54	0.41
1:I:111:HIS:HB2	1:I:137:LEU:HD11	2.02	0.41
1:I:4242:ILE:O	1:I:4246:GLN:N	2.53	0.41
1:I:5026:ASP:OD1	1:I:5027:CYS:N	2.54	0.41
1:G:2009:LEU:HA	1:G:2012:PHE:CE2	2.55	0.41
1:B:317:ARG:N	1:B:347:PHE:O	2.48	0.41
1:B:2265:LEU:HD22	1:B:2330:ARG:HB3	2.03	0.41
1:B:4990:PHE:O	1:B:4994:TYR:N	2.44	0.41
1:E:587:ILE:O	1:E:591:ASP:N	2.54	0.41
1:E:893:TYR:HD1	1:E:907:LEU:HB2	1.84	0.41
1:E:4834:GLY:HA2	1:E:4837:LEU:HB2	2.02	0.41
1:E:5022:PHE:HA	1:E:5023:PRO:HD3	1.82	0.41
1:I:379:HIS:HD2	1:I:382:GLY:H	1.68	0.41
1:I:649:PHE:HB3	1:I:776:LEU:HD13	2.03	0.41
1:I:1259:ARG:NH2	1:I:1595:LEU:O	2.54	0.41
1:I:3850:GLN:HA	1:I:3853:ALA:HB3	2.03	0.41
1:I:4062:PHE:O	1:I:4066:LEU:N	2.54	0.41
1:I:4657:CYS:O	1:I:4661:TYR:N	2.49	0.41
1:G:214:VAL:HB	1:G:339:ILE:HB	2.02	0.41
1:G:2199:ARG:NE	1:G:2246:ASN:OD1	2.54	0.41
1:G:3922:TYR:O	1:G:3926:LEU:N	2.47	0.41
2:A:14:THR:N	2:A:67:SER:OG	2.54	0.41
2:A:55:VAL:HG23	2:A:60:GLU:HB2	2.02	0.41
2:H:7:ILE:N	2:H:71:ARG:O	2.47	0.41
1:B:111:HIS:HB2	1:B:137:LEU:HD11	2.02	0.41
1:B:288:GLY:HA3	1:B:405:HIS:CE1	2.56	0.41
1:B:886:ARG:HB3	1:B:891:TRP:HB2	2.03	0.41
1:B:1096:THR:HG23	1:B:1199:VAL:HG22	2.02	0.41
1:B:1105:ALA:O	1:B:1189:LEU:N	2.54	0.41
1:B:1164:LEU:N	1:B:1167:GLU:O	2.50	0.41
1:B:2199:ARG:NE	1:B:2246:ASN:OD1	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2674:UNK:O	1:B:2676:UNK:N	2.54	0.41
1:B:4549:VAL:HA	1:B:4552:LEU:HB3	2.01	0.41
1:B:4834:GLY:HA2	1:B:4837:LEU:HB2	2.02	0.41
1:B:5026:ASP:OD1	1:B:5027:CYS:N	2.54	0.41
1:B:5033:GLU:O	1:B:5037:SER:N	2.54	0.41
1:E:288:GLY:HA3	1:E:405:HIS:CE1	2.56	0.41
1:E:681:HIS:HB3	1:E:784:SER:HB3	2.01	0.41
1:E:3361:UNK:O	1:E:3365:UNK:N	2.54	0.41
1:E:3662:ILE:H	1:E:3662:ILE:HG13	1.79	0.41
1:E:3694:LYS:HA	1:E:3695:PRO:HD3	1.87	0.41
1:E:3818:ASP:O	1:E:3822:ASP:N	2.52	0.41
1:E:3896:ASN:ND2	1:E:3898:ASP:OD1	2.54	0.41
1:I:283:ARG:HH21	1:I:402:ARG:HH12	1.68	0.41
1:I:3945:GLU:O	1:I:3949:ARG:N	2.45	0.41
1:I:4110:PHE:HA	1:I:4113:SER:HB3	2.03	0.41
1:I:4728:HIS:HD2	1:I:4731:ILE:HD11	1.86	0.41
1:I:4987:ASN:OD1	1:I:4987:ASN:N	2.54	0.41
1:I:5033:GLU:O	1:I:5037:SER:N	2.54	0.41
1:G:222:LEU:HG	1:G:390:LEU:HD22	2.03	0.41
1:G:288:GLY:HA3	1:G:405:HIS:CE1	2.56	0.41
1:G:710:ASP:OD1	1:G:710:ASP:N	2.48	0.41
1:G:898:ASP:HB3	1:G:901:LYS:HB2	2.02	0.41
1:G:1259:ARG:NH2	1:G:1595:LEU:O	2.54	0.41
1:G:1639:LEU:N	1:G:1648:MET:O	2.54	0.41
1:G:2191:PHE:HD1	1:G:2198:MET:HG3	1.84	0.41
1:G:3542:UNK:O	1:G:3546:UNK:N	2.54	0.41
1:G:3754:GLU:O	1:G:3758:MET:N	2.51	0.41
1:G:4834:GLY:HA2	1:G:4837:LEU:HB2	2.02	0.41
2:F:2:VAL:HG21	2:F:61:GLU:HB2	2.02	0.41
2:F:14:THR:N	2:F:67:SER:OG	2.54	0.41
2:J:77:THR:OG1	2:J:79:ASP:OD1	2.34	0.41
1:B:451:TYR:O	1:B:474:ARG:NH1	2.44	0.41
1:B:1259:ARG:NH2	1:B:1595:LEU:O	2.54	0.41
1:B:3896:ASN:ND2	1:B:3898:ASP:OD1	2.54	0.41
1:B:4062:PHE:O	1:B:4066:LEU:N	2.54	0.41
1:B:4728:HIS:HD2	1:B:4731:ILE:HD11	1.86	0.41
1:E:243:ARG:NH2	1:E:303:ASP:OD1	2.29	0.41
1:E:838:HIS:CE1	1:E:1201:HIS:HD2	2.38	0.41
1:E:898:ASP:HB3	1:E:901:LYS:HB2	2.02	0.41
1:E:1150:GLY:O	1:E:1163:THR:OG1	2.34	0.41
1:E:2004:GLU:O	1:E:2008:MET:N	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2969:UNK:O	1:E:2973:UNK:N	2.54	0.41
1:E:5033:GLU:O	1:E:5037:SER:N	2.54	0.41
1:I:77:ALA:O	1:I:81:MET:N	2.49	0.41
1:I:288:GLY:HA3	1:I:405:HIS:CE1	2.56	0.41
1:I:1077:ALA:HB3	1:I:1189:LEU:HD11	2.03	0.41
1:I:1774:PRO:HG2	1:I:1776:HIS:CE1	2.56	0.41
1:I:2158:CYS:HB2	1:I:2184:ASN:HD22	1.86	0.41
1:I:3892:CYS:HB2	1:I:3900:GLN:HG2	2.03	0.41
1:I:4578:LEU:O	1:G:4880:MET:HG3	2.21	0.41
1:I:4974:GLY:O	1:I:4978:HIS:N	2.46	0.41
1:G:283:ARG:HH21	1:G:402:ARG:HH12	1.68	0.41
1:G:2158:CYS:HB2	1:G:2184:ASN:HD22	1.86	0.41
1:B:119:SER:HA	1:B:146:CYS:HA	2.02	0.40
1:B:2158:CYS:HB2	1:B:2184:ASN:HD22	1.86	0.40
1:B:4227:GLU:HG3	1:B:4228:ALA:H	1.85	0.40
1:E:359:TYR:HA	1:E:376:ALA:HA	2.03	0.40
1:E:1096:THR:HG23	1:E:1199:VAL:HG22	2.02	0.40
1:E:2158:CYS:HB2	1:E:2184:ASN:HD22	1.86	0.40
1:I:2199:ARG:NE	1:I:2246:ASN:OD1	2.54	0.40
1:I:4227:GLU:HG3	1:I:4228:ALA:H	1.85	0.40
1:G:870:ILE:HD12	1:G:870:ILE:HA	1.79	0.40
1:G:1077:ALA:HB3	1:G:1189:LEU:HD11	2.03	0.40
1:G:1105:ALA:O	1:G:1189:LEU:N	2.54	0.40
1:G:3812:VAL:O	1:G:3816:MET:N	2.46	0.40
1:G:3850:GLN:HA	1:G:3853:ALA:HB3	2.03	0.40
1:G:4062:PHE:O	1:G:4066:LEU:N	2.54	0.40
2:A:7:ILE:N	2:A:71:ARG:O	2.47	0.40
1:B:283:ARG:HH21	1:B:402:ARG:HH12	1.68	0.40
1:B:731:THR:OG1	1:B:1520:UNK:O	2.36	0.40
1:B:988:LEU:O	1:B:992:GLY:N	2.45	0.40
1:B:2132:GLY:O	1:B:2136:ARG:N	2.52	0.40
1:E:534:ARG:NH2	1:E:573:GLU:OE2	2.51	0.40
1:E:2007:ASN:OD1	1:E:3656:SER:OG	2.33	0.40
1:E:2587:UNK:O	1:E:2591:UNK:N	2.54	0.40
1:E:4028:LEU:HD23	1:E:4146:LEU:HD13	2.04	0.40
1:E:4687:TYR:CE1	1:E:4692:PRO:HG3	2.56	0.40
1:I:736:HIS:HB3	2:J:8:SER:H	1.85	0.40
1:I:1708:ARG:HG2	1:I:1711:TYR:CE2	2.57	0.40
1:I:2265:LEU:HD22	1:I:2330:ARG:HB3	2.03	0.40
1:I:2298:VAL:HA	1:I:2301:TYR:HB2	2.04	0.40
1:I:3663:LEU:H	1:I:3663:LEU:HG	1.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1720:LEU:HB2	1:G:1847:THR:HG23	2.03	0.40
1:G:3755:GLU:HA	1:G:3758:MET:HB3	2.02	0.40
1:G:3892:CYS:HB2	1:G:3900:GLN:HG2	2.03	0.40
1:G:3959:LYS:O	1:G:3963:ASN:N	2.47	0.40
1:G:4031:LEU:HD22	1:G:4149:ASN:ND2	2.36	0.40
2:F:55:VAL:HG23	2:F:60:GLU:HB2	2.02	0.40
1:B:736:HIS:HB3	2:A:8:SER:H	1.85	0.40
1:B:2025:GLU:HA	1:B:2028:ARG:NE	2.37	0.40
1:B:2298:VAL:HA	1:B:2301:TYR:HB2	2.04	0.40
1:B:4943:LEU:HA	1:B:4946:GLN:HB2	2.03	0.40
1:E:1774:PRO:HG2	1:E:1776:HIS:CE1	2.56	0.40
1:E:5000:GLU:HA	1:E:5003:HIS:NE2	2.37	0.40
1:E:5026:ASP:OD1	1:E:5027:CYS:N	2.54	0.40
1:I:119:SER:HA	1:I:146:CYS:HA	2.02	0.40
1:I:898:ASP:HB3	1:I:901:LYS:HB2	2.03	0.40
1:I:2674:UNK:O	1:I:2676:UNK:N	2.53	0.40
1:I:3896:ASN:ND2	1:I:3898:ASP:OD1	2.54	0.40
1:I:3915:ILE:H	1:I:3915:ILE:HG13	1.67	0.40
1:I:4031:LEU:HD22	1:I:4149:ASN:ND2	2.36	0.40
1:I:4687:TYR:CE1	1:I:4692:PRO:HG3	2.56	0.40
1:G:473:ASN:O	1:G:477:LEU:N	2.53	0.40
1:G:1727:ARG:HH21	1:G:1775:HIS:CE1	2.40	0.40
1:G:1774:PRO:HG2	1:G:1776:HIS:CE1	2.56	0.40
1:G:4227:GLU:HG3	1:G:4228:ALA:H	1.85	0.40
1:G:4728:HIS:HD2	1:G:4731:ILE:HD11	1.86	0.40
1:G:4943:LEU:HA	1:G:4946:GLN:HB2	2.03	0.40
1:G:5033:GLU:O	1:G:5037:SER:N	2.54	0.40
1:B:101:LEU:HB3	1:B:150:MET:HE3	2.02	0.40
1:B:788:LYS:HG2	1:B:1630:CYS:N	2.32	0.40
1:B:946:ALA:HA	1:B:949:ASN:HB2	2.04	0.40
1:B:2021:CYS:HA	1:B:2022:PRO:HD3	1.95	0.40
1:B:3922:TYR:O	1:B:3926:LEU:N	2.47	0.40
1:E:27:THR:OG1	1:E:31:GLU:N	2.55	0.40
1:E:1256:GLU:HG2	1:E:1273:ALA:HB3	2.04	0.40
1:E:1708:ARG:HG2	1:E:1711:TYR:CE2	2.57	0.40
1:E:1965:TYR:OH	1:E:2027:ILE:O	2.27	0.40
1:E:4031:LEU:HD22	1:E:4149:ASN:ND2	2.36	0.40
1:I:222:LEU:HG	1:I:390:LEU:HD22	2.03	0.40
1:I:4677:LEU:HD13	1:I:4677:LEU:HA	1.91	0.40
1:G:359:TYR:HA	1:G:376:ALA:HA	2.03	0.40
1:G:649:PHE:HB3	1:G:776:LEU:HD13	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4110:PHE:HA	1:G:4113:SER:HB3	2.03	0.40
1:B:222:LEU:HG	1:B:390:LEU:HD22	2.03	0.40
1:B:1141:ARG:H	1:B:1141:ARG:HD2	1.87	0.40
1:B:2587:UNK:O	1:B:2591:UNK:N	2.54	0.40
1:E:473:ASN:O	1:E:477:LEU:N	2.53	0.40
1:E:1105:ALA:O	1:E:1189:LEU:N	2.54	0.40
1:E:2674:UNK:O	1:E:2676:UNK:N	2.54	0.40
1:E:2797:PHE:HB3	1:E:2801:ASP:HB2	2.03	0.40
1:G:114:SER:HA	1:G:399:GLN:HE21	1.87	0.40
1:G:564:LEU:HA	1:G:567:VAL:HG22	2.03	0.40
1:G:1096:THR:HG23	1:G:1199:VAL:HG22	2.02	0.40
1:G:2025:GLU:HA	1:G:2028:ARG:NE	2.37	0.40
1:G:3462:UNK:O	1:G:3466:UNK:N	2.55	0.40
1:G:3770:LEU:HA	1:G:3770:LEU:HD13	1.80	0.40
1:G:4220:ASP:O	1:G:4224:GLU:N	2.49	0.40
1:G:4987:ASN:N	1:G:4987:ASN:OD1	2.54	0.40
1:G:5026:ASP:OD1	1:G:5027:CYS:N	2.54	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	B	3235/4687 (69%)	2875 (89%)	355 (11%)	5 (0%)	47	81
1	E	3235/4687 (69%)	2874 (89%)	356 (11%)	5 (0%)	47	81
1	G	3235/4687 (69%)	2876 (89%)	354 (11%)	5 (0%)	47	81
1	I	3235/4687 (69%)	2876 (89%)	354 (11%)	5 (0%)	47	81
2	A	105/108 (97%)	94 (90%)	11 (10%)	0	100	100
2	F	105/108 (97%)	94 (90%)	11 (10%)	0	100	100
2	H	105/108 (97%)	94 (90%)	11 (10%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	J	105/108 (97%)	94 (90%)	11 (10%)	0	100	100
All	All	13360/19180 (70%)	11877 (89%)	1463 (11%)	20 (0%)	54	85

All (20) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	1708	ARG
1	E	1708	ARG
1	I	1708	ARG
1	G	1708	ARG
1	B	1932	PRO
1	E	1932	PRO
1	I	1932	PRO
1	G	1932	PRO
1	B	1840	PRO
1	E	1840	PRO
1	I	1840	PRO
1	G	1840	PRO
1	B	5023	PRO
1	E	5023	PRO
1	I	5023	PRO
1	G	5023	PRO
1	B	4641	PRO
1	E	4641	PRO
1	I	4641	PRO
1	G	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	B	2493/3209 (78%)	2478 (99%)	15 (1%)	86	92
1	E	2493/3209 (78%)	2478 (99%)	15 (1%)	86	92
1	G	2493/3209 (78%)	2478 (99%)	15 (1%)	86	92

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	I	2493/3209 (78%)	2478 (99%)	15 (1%)	86	92
2	A	88/89 (99%)	88 (100%)	0	100	100
2	F	88/89 (99%)	88 (100%)	0	100	100
2	H	88/89 (99%)	88 (100%)	0	100	100
2	J	88/89 (99%)	88 (100%)	0	100	100
All	All	10324/13192 (78%)	10264 (99%)	60 (1%)	86	92

All (60) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	534	ARG
1	B	553	ARG
1	B	978	THR
1	B	1076	ARG
1	B	1141	ARG
1	B	1964	ARG
1	B	3663	LEU
1	B	3770	LEU
1	B	3787	LYS
1	B	3896	ASN
1	B	4034	ASN
1	B	4085	ARG
1	B	4120	ASN
1	B	4137	ARG
1	B	4985	LEU
1	E	534	ARG
1	E	553	ARG
1	E	978	THR
1	E	1076	ARG
1	E	1141	ARG
1	E	1964	ARG
1	E	3663	LEU
1	E	3770	LEU
1	E	3787	LYS
1	E	3896	ASN
1	E	4034	ASN
1	E	4085	ARG
1	E	4120	ASN
1	E	4137	ARG
1	E	4985	LEU

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Mol	Chain	Res	Type
1	I	534	ARG
1	I	553	ARG
1	I	978	THR
1	I	1076	ARG
1	I	1141	ARG
1	I	1964	ARG
1	I	3663	LEU
1	I	3770	LEU
1	I	3787	LYS
1	I	3896	ASN
1	I	4034	ASN
1	I	4085	ARG
1	I	4120	ASN
1	I	4137	ARG
1	I	4985	LEU
1	G	534	ARG
1	G	553	ARG
1	G	978	THR
1	G	1076	ARG
1	G	1141	ARG
1	G	1964	ARG
1	G	3663	LEU
1	G	3770	LEU
1	G	3787	LYS
1	G	3896	ASN
1	G	4034	ASN
1	G	4085	ARG
1	G	4120	ASN
1	G	4137	ARG
1	G	4985	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (165) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	23	GLN
1	B	57	ASN
1	B	105	HIS
1	B	111	HIS
1	B	203	ASN
1	B	379	HIS
1	B	383	HIS
1	B	405	HIS

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Mol	Chain	Res	Type
1	B	479	GLN
1	B	582	HIS
1	B	838	HIS
1	B	1158	ASN
1	B	1598	GLN
1	B	1679	ASN
1	B	1702	HIS
1	B	1719	HIS
1	B	1775	HIS
1	B	1941	ASN
1	B	1970	GLN
1	B	1973	GLN
1	B	2005	GLN
1	B	2127	GLN
1	B	2184	ASN
1	B	3766	GLN
1	B	3771	HIS
1	B	3809	ASN
1	B	3896	ASN
1	B	3946	GLN
1	B	3950	ASN
1	B	3963	ASN
1	B	3976	ASN
1	B	4005	GLN
1	B	4054	ASN
1	B	4102	GLN
1	B	4120	ASN
1	B	4133	GLN
1	B	4142	ASN
1	B	4156	HIS
1	B	4714	ASN
1	B	4728	HIS
1	B	4806	ASN
1	E	23	GLN
1	E	57	ASN
1	E	105	HIS
1	E	111	HIS
1	E	203	ASN
1	E	379	HIS
1	E	383	HIS
1	E	405	HIS
1	E	479	GLN

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Mol	Chain	Res	Type
1	E	838	HIS
1	E	1158	ASN
1	E	1598	GLN
1	E	1679	ASN
1	E	1693	GLN
1	E	1702	HIS
1	E	1719	HIS
1	E	1775	HIS
1	E	1941	ASN
1	E	1970	GLN
1	E	1973	GLN
1	E	2005	GLN
1	E	2127	GLN
1	E	2184	ASN
1	E	3766	GLN
1	E	3771	HIS
1	E	3809	ASN
1	E	3896	ASN
1	E	3946	GLN
1	E	3950	ASN
1	E	3963	ASN
1	E	3976	ASN
1	E	4005	GLN
1	E	4054	ASN
1	E	4102	GLN
1	E	4120	ASN
1	E	4133	GLN
1	E	4142	ASN
1	E	4156	HIS
1	E	4714	ASN
1	E	4728	HIS
1	E	4806	ASN
1	E	5031	GLN
1	I	23	GLN
1	I	57	ASN
1	I	105	HIS
1	I	111	HIS
1	I	203	ASN
1	I	379	HIS
1	I	383	HIS
1	I	405	HIS
1	I	479	GLN

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Mol	Chain	Res	Type
1	I	582	HIS
1	I	838	HIS
1	I	1158	ASN
1	I	1598	GLN
1	I	1679	ASN
1	I	1702	HIS
1	I	1719	HIS
1	I	1775	HIS
1	I	1941	ASN
1	I	1970	GLN
1	I	1973	GLN
1	I	2005	GLN
1	I	2127	GLN
1	I	2184	ASN
1	I	3771	HIS
1	I	3809	ASN
1	I	3896	ASN
1	I	3946	GLN
1	I	3950	ASN
1	I	3963	ASN
1	I	3976	ASN
1	I	4005	GLN
1	I	4054	ASN
1	I	4102	GLN
1	I	4120	ASN
1	I	4133	GLN
1	I	4142	ASN
1	I	4156	HIS
1	I	4714	ASN
1	I	4728	HIS
1	I	4806	ASN
1	G	23	GLN
1	G	57	ASN
1	G	105	HIS
1	G	111	HIS
1	G	203	ASN
1	G	379	HIS
1	G	383	HIS
1	G	405	HIS
1	G	479	GLN
1	G	582	HIS
1	G	838	HIS

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Mol	Chain	Res	Type
1	G	1158	ASN
1	G	1598	GLN
1	G	1679	ASN
1	G	1693	GLN
1	G	1702	HIS
1	G	1719	HIS
1	G	1775	HIS
1	G	1941	ASN
1	G	1970	GLN
1	G	1973	GLN
1	G	2005	GLN
1	G	2127	GLN
1	G	2184	ASN
1	G	3771	HIS
1	G	3809	ASN
1	G	3896	ASN
1	G	3946	GLN
1	G	3950	ASN
1	G	3963	ASN
1	G	3976	ASN
1	G	4005	GLN
1	G	4054	ASN
1	G	4102	GLN
1	G	4120	ASN
1	G	4133	GLN
1	G	4142	ASN
1	G	4156	HIS
1	G	4714	ASN
1	G	4728	HIS
1	G	4806	ASN
1	G	5031	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 8 ligands modelled in this entry, 8 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	E	12
1	B	12
1	I	12
1	G	12

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	E	3613:UNK	C	3639:THR	N	45.91
1	B	3613:UNK	C	3639:THR	N	45.70
1	I	3613:UNK	C	3639:THR	N	45.65
1	G	3613:UNK	C	3639:THR	N	45.46
1	I	3163:UNK	C	3170:UNK	N	16.67
1	B	3163:UNK	C	3170:UNK	N	16.62
1	G	3163:UNK	C	3170:UNK	N	16.55
1	E	3163:UNK	C	3170:UNK	N	16.51
1	G	3063:UNK	C	3134:UNK	N	14.87

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	E	3063:UNK	C	3134:UNK	N	14.83
1	I	3063:UNK	C	3134:UNK	N	14.78
1	B	3063:UNK	C	3134:UNK	N	14.77
1	E	2703:UNK	C	2734:ASN	N	14.08
1	G	2703:UNK	C	2734:ASN	N	14.07
1	I	2703:UNK	C	2734:ASN	N	14.05
1	E	3468:UNK	C	3511:UNK	N	14.02
1	B	2703:UNK	C	2734:ASN	N	13.99
1	B	3468:UNK	C	3511:UNK	N	13.95
1	I	3468:UNK	C	3511:UNK	N	13.78
1	G	3468:UNK	C	3511:UNK	N	13.75
1	E	3236:UNK	C	3241:UNK	N	12.64
1	E	1564:UNK	C	1573:MET	N	12.60
1	G	3236:UNK	C	3241:UNK	N	12.60
1	B	3236:UNK	C	3241:UNK	N	12.55
1	B	1564:UNK	C	1573:MET	N	12.50
1	I	3236:UNK	C	3241:UNK	N	12.47
1	B	2976:UNK	C	2995:UNK	N	12.32
1	I	2976:UNK	C	2995:UNK	N	12.32
1	G	1564:UNK	C	1573:MET	N	12.32
1	I	1564:UNK	C	1573:MET	N	12.31
1	E	2976:UNK	C	2995:UNK	N	12.29
1	G	2976:UNK	C	2995:UNK	N	12.29
1	E	3254:UNK	C	3261:UNK	N	8.51
1	G	3254:UNK	C	3261:UNK	N	8.49
1	B	3254:UNK	C	3261:UNK	N	8.43
1	I	3254:UNK	C	3261:UNK	N	8.39
1	I	1297:UNK	C	1430:UNK	N	5.75
1	G	1297:UNK	C	1430:UNK	N	5.72
1	B	1297:UNK	C	1430:UNK	N	5.70
1	E	1297:UNK	C	1430:UNK	N	5.49
1	I	2939:ARG	C	2942:UNK	N	4.57
1	B	2939:ARG	C	2942:UNK	N	4.45
1	G	2939:ARG	C	2942:UNK	N	4.45
1	E	2939:ARG	C	2942:UNK	N	4.41
1	I	2479:LEU	C	2487:UNK	N	4.05
1	G	2479:LEU	C	2487:UNK	N	4.02
1	B	2479:LEU	C	2487:UNK	N	4.01
1	E	2479:LEU	C	2487:UNK	N	4.00

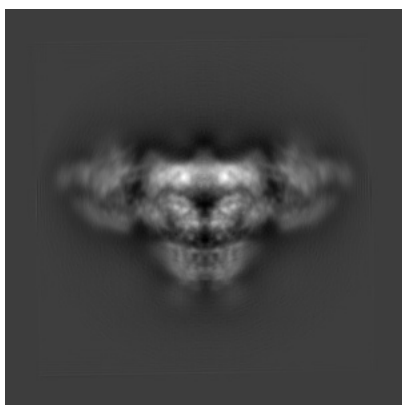
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-20486. These allow visual inspection of the internal detail of the map and identification of artifacts.

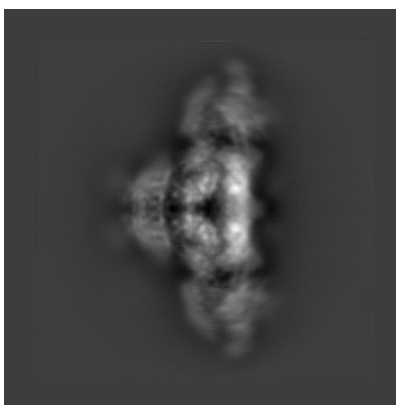
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

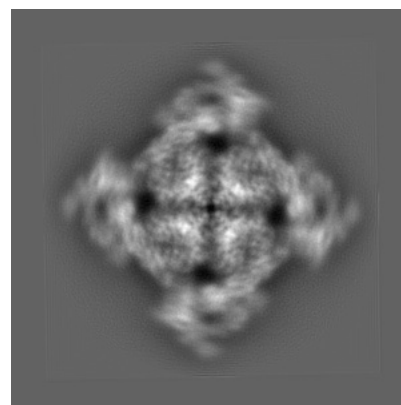
6.1.1 Primary map



X



Y

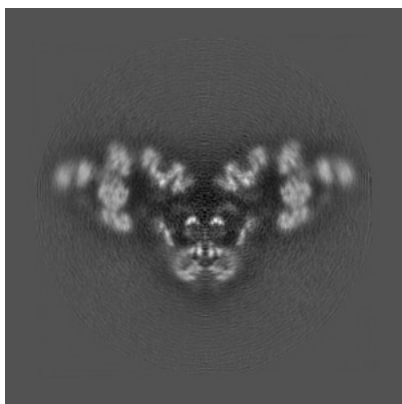


Z

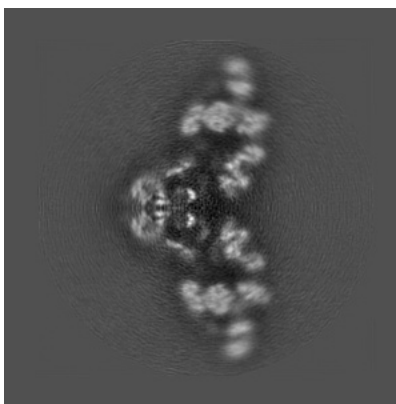
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

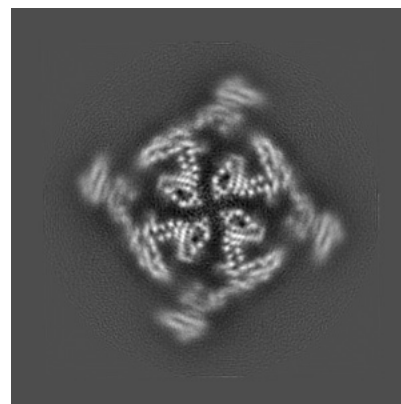
6.2.1 Primary map



X Index: 200



Y Index: 200

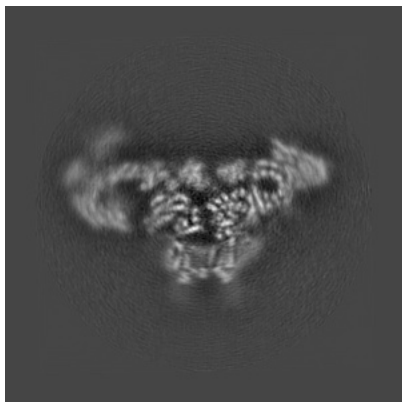


Z Index: 200

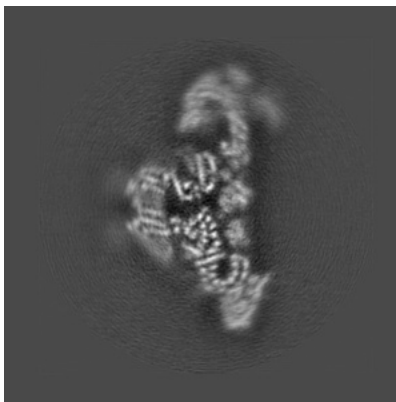
The images above show central slices of the map in three orthogonal directions.

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

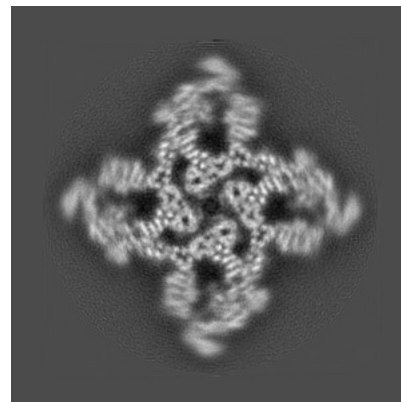
6.3.1 Primary map



X Index: 179



Y Index: 177



Z Index: 231

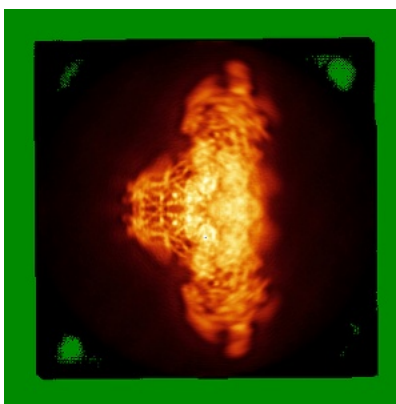
The images above show the largest variance slices of the map in three orthogonal directions.

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

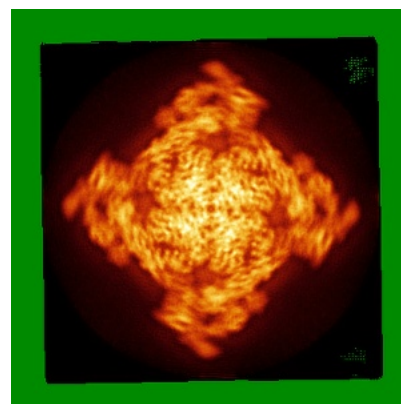
6.4.1 Primary map



X



Y

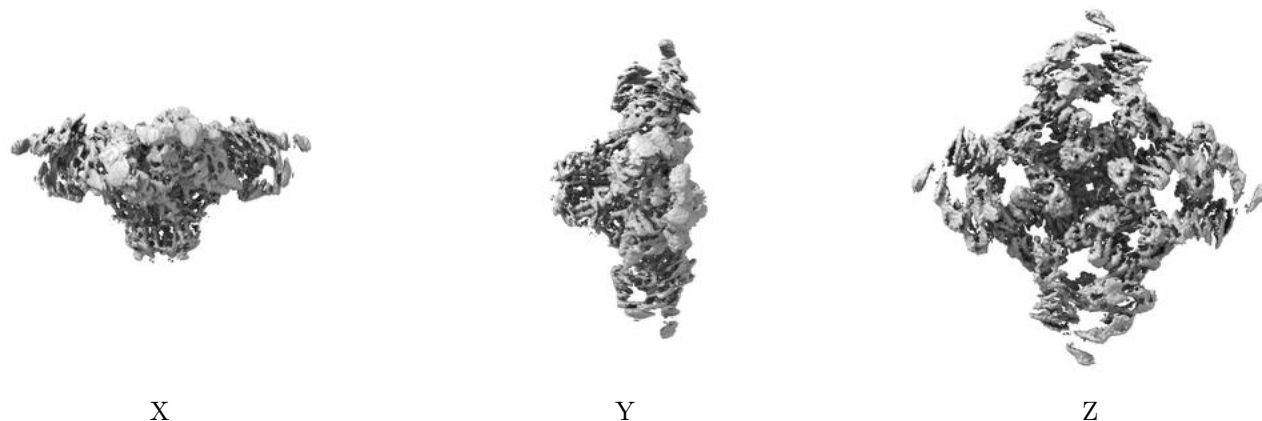


Z

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

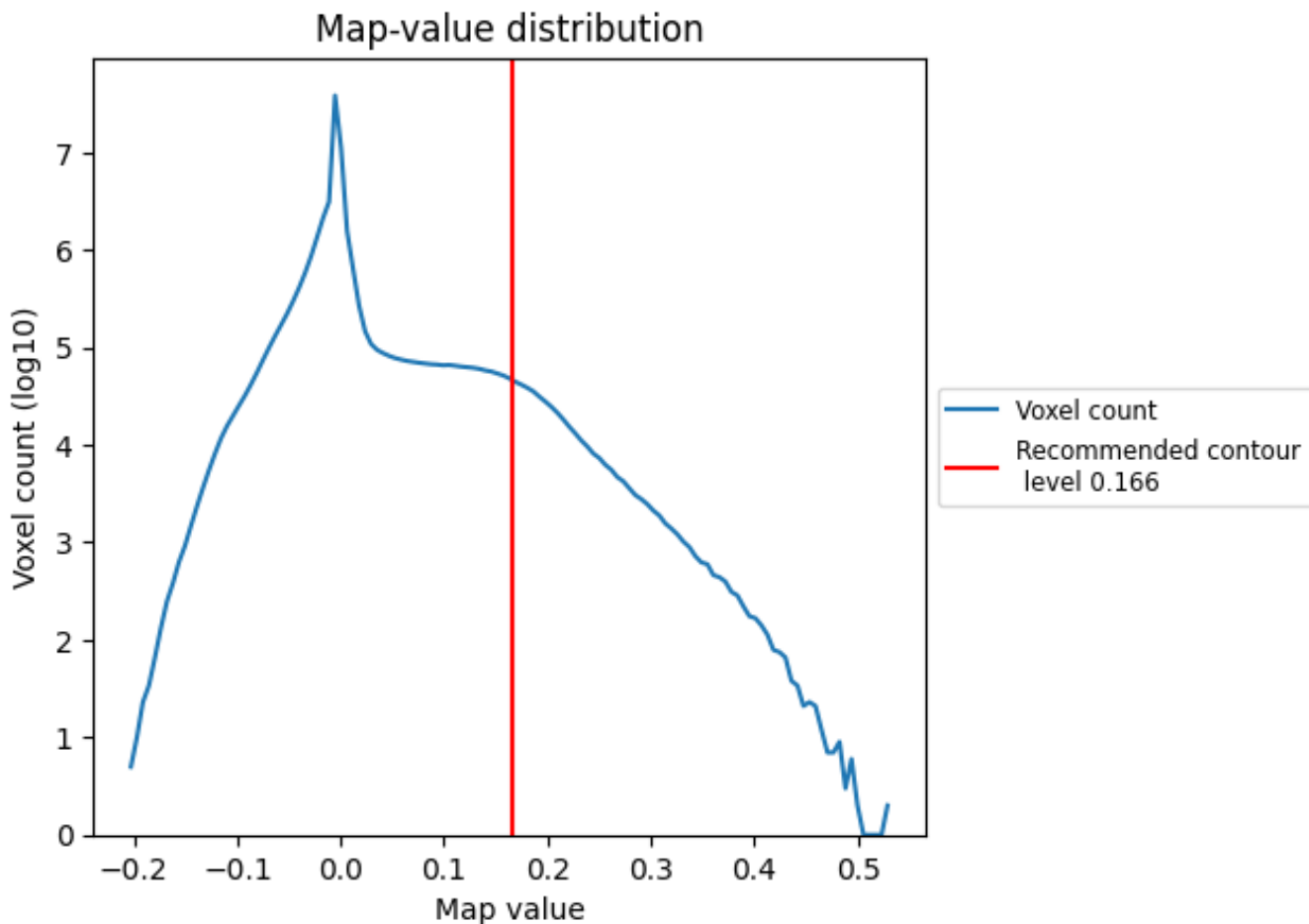
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

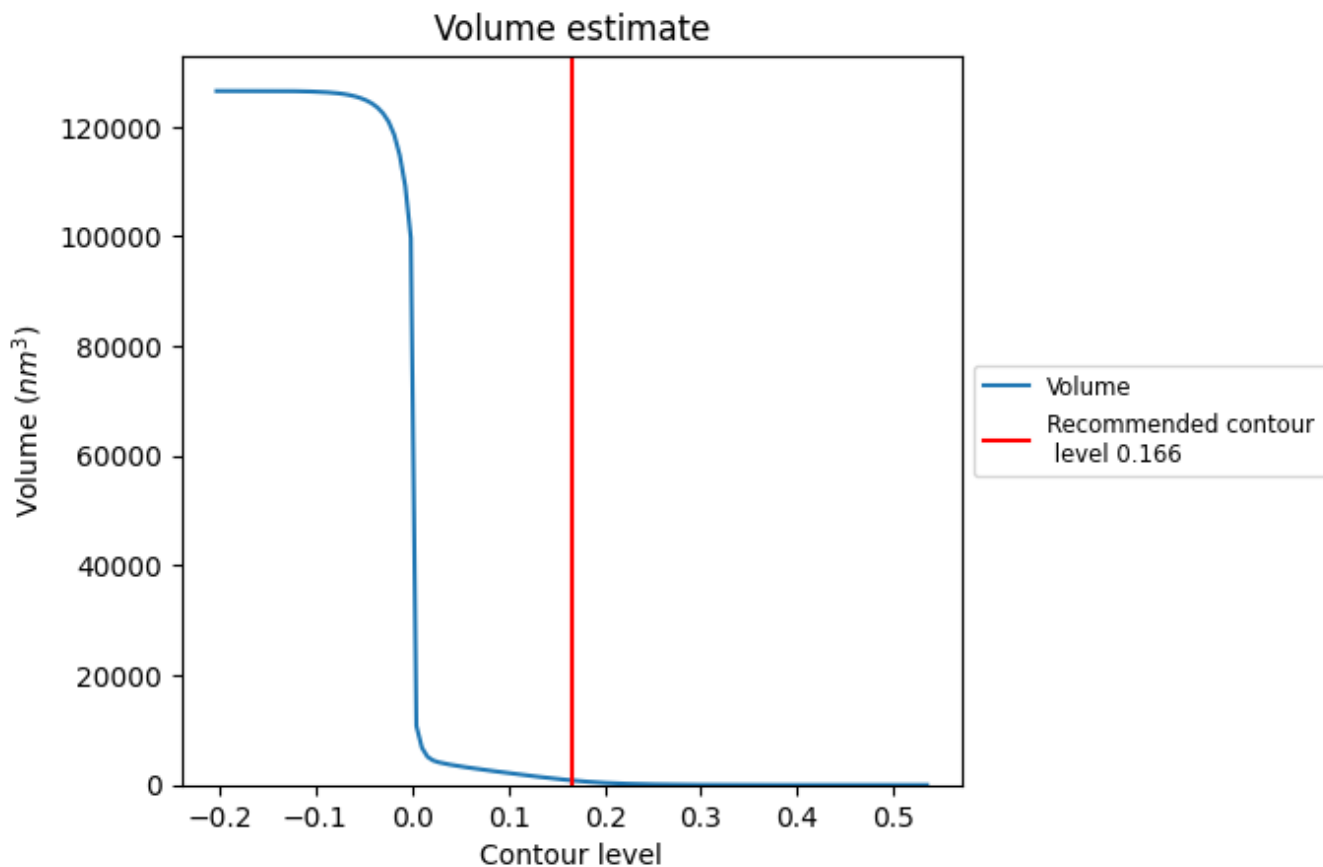
This section contains the results of statistical analysis of the map.

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.

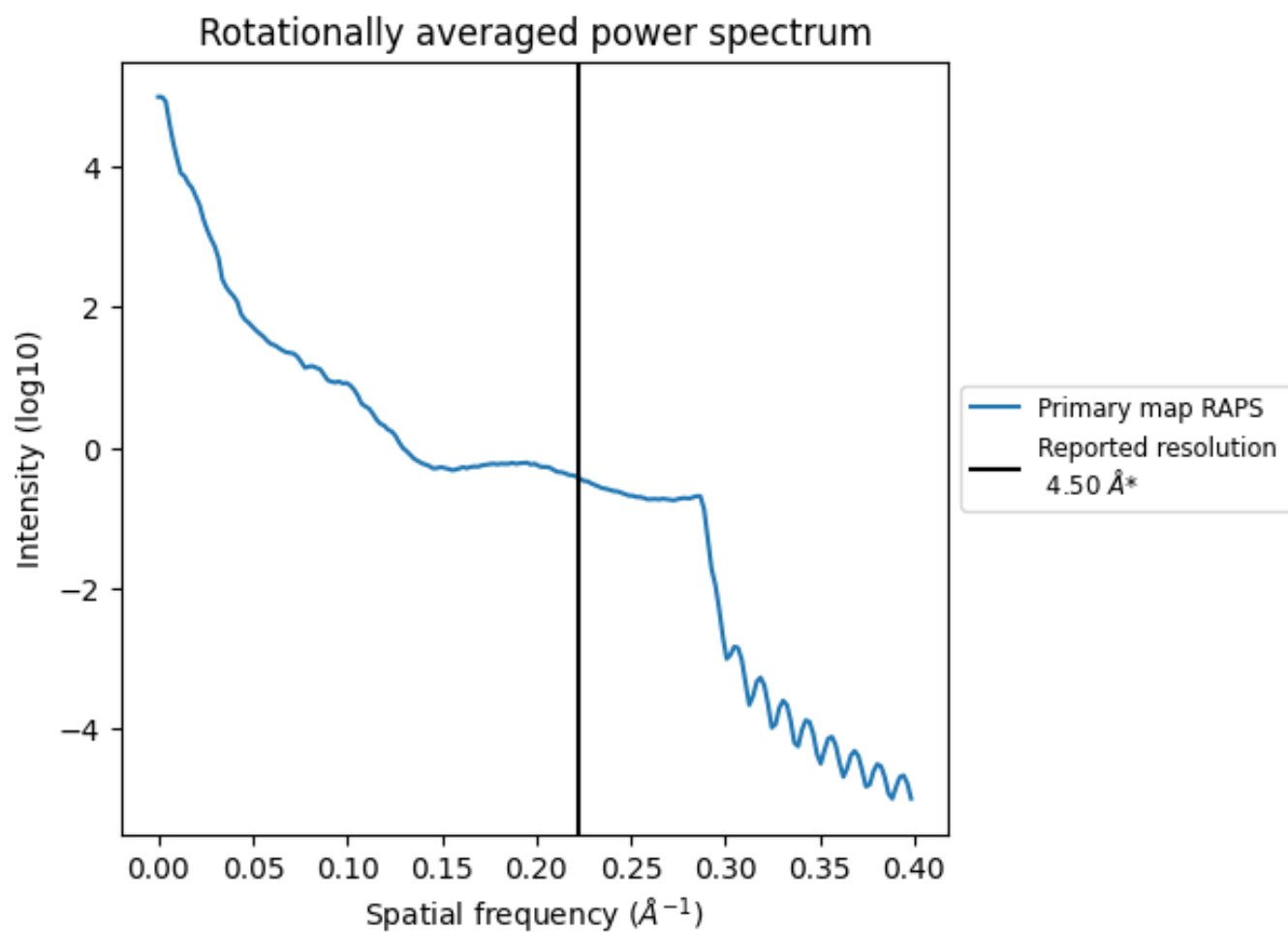
7.2 Volume estimate [\(i\)](#)



The volume at the recommended contour level is 830 nm^3 ; this corresponds to an approximate mass of 750 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 0.222\AA^{-1}

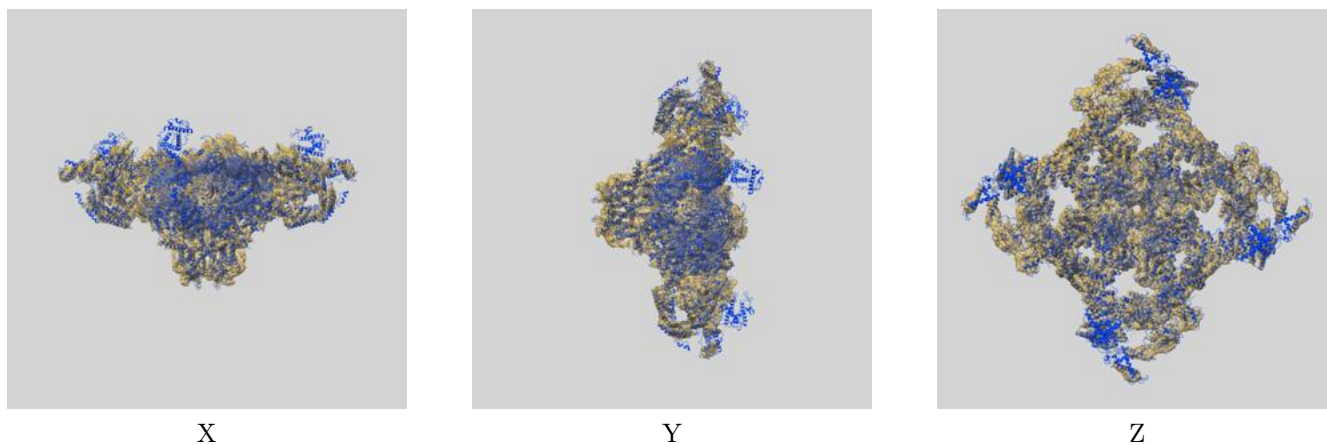
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

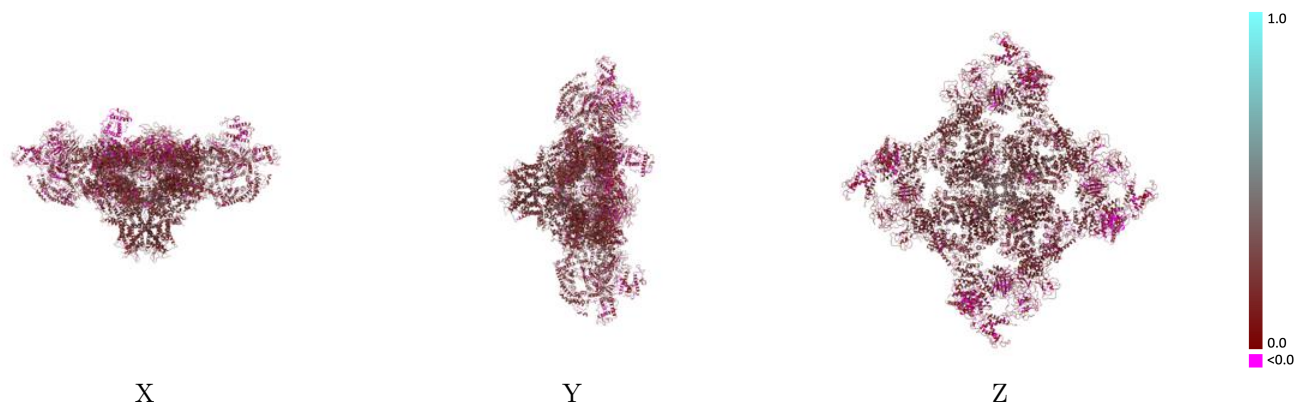
This section contains information regarding the fit between EMDB map EMD-20486 and PDB model 6PV6. Per-residue inclusion information can be found in section 3 on page 5.

9.1 Map-model overlay [i](#)



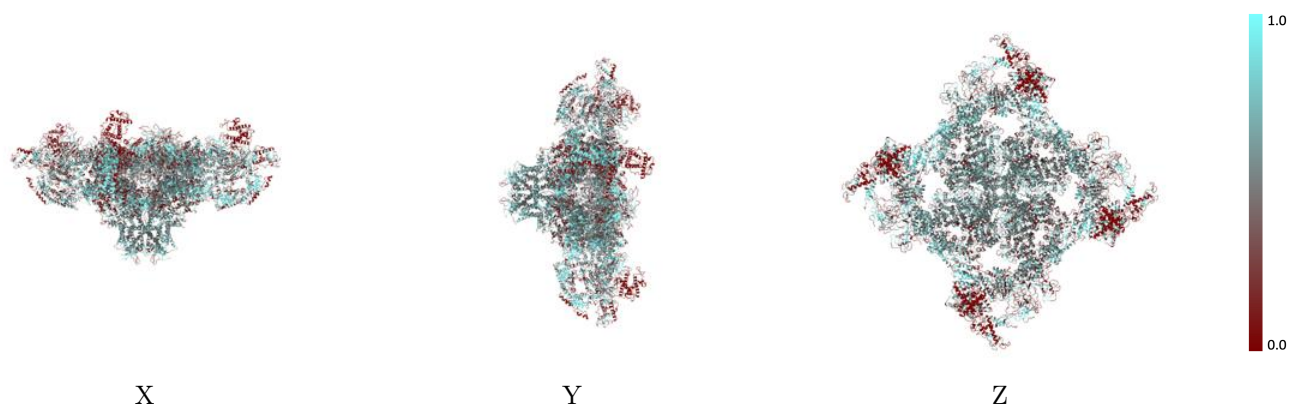
The images above show the 3D surface view of the map at the recommended contour level 0.166 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



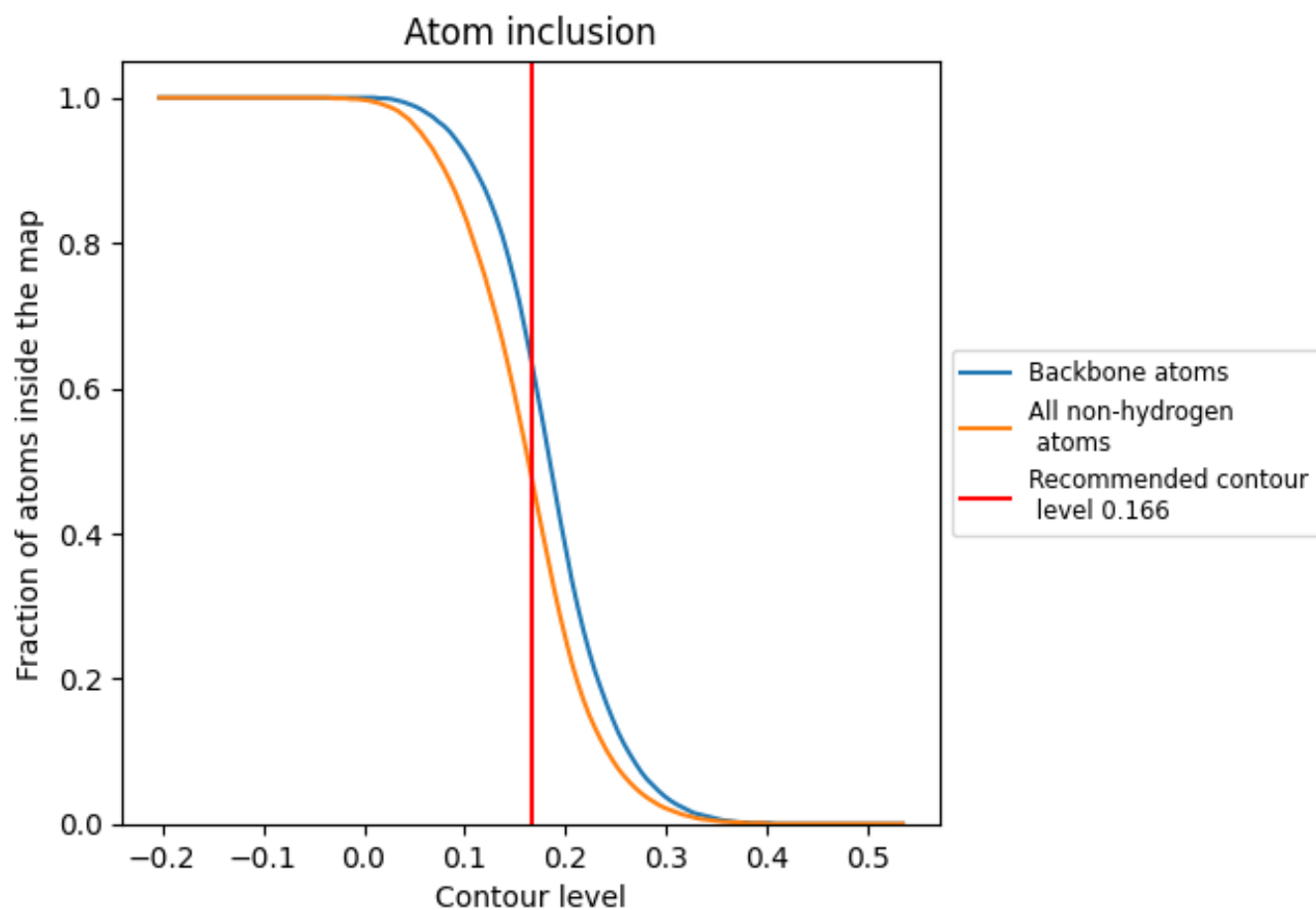
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.166).

9.4 Atom inclusion [i](#)



At the recommended contour level, 64% of all backbone atoms, 48% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary [i](#)

The table lists the average atom inclusion at the recommended contour level (0.166) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.4790	0.1800
A	0.4850	0.1850
B	0.4970	0.1950
E	0.4770	0.1780
F	0.4270	0.1320
G	0.4620	0.1660
H	0.4110	0.1400
I	0.4840	0.1860
J	0.4700	0.1810

