



## Full wwPDB EM Validation Report ⓘ

Nov 5, 2024 – 10:41 AM EST

PDB ID : 9E1D  
EMDB ID : EMD-47390  
Title : Structure of RyR1 in the primed state in the presence of enprofylline  
Authors : Miotto, M.C.; Marks, A.R.  
Deposited on : 2024-10-21  
Resolution : 2.76 Å (reported)  
Based on initial model : 7TZC

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev113  
Mogul : 2022.3.0, CSD as543be (2022)  
MolProbity : 4.02b-467  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.39

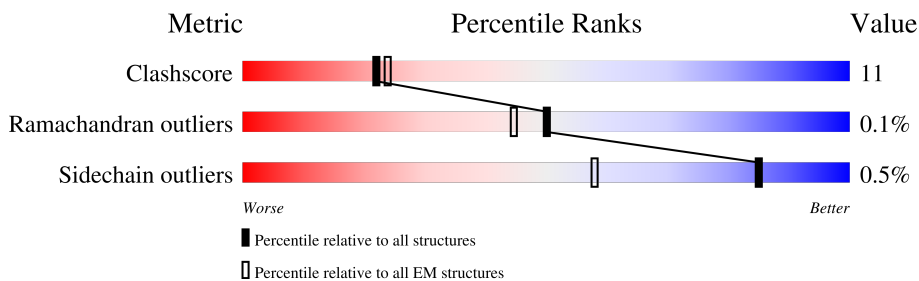
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 2.76 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	A	5037	
1	B	5037	
1	C	5037	
1	D	5037	
2	E	108	
2	F	108	
2	G	108	
2	H	108	

## 2 Entry composition

There are 6 unique types of molecules in this entry. The entry contains 144112 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	A	4404	Total 35150	C 22365	N 6063	O 6485	S 237	9	0
1	B	4404	Total 35150	C 22365	N 6063	O 6485	S 237	9	0
1	D	4404	Total 35150	C 22365	N 6063	O 6485	S 237	9	0
1	C	4404	Total 35150	C 22365	N 6063	O 6485	S 237	9	0

- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	E	107	Total 831	C 527	N 146	O 154	S 4	0	0
2	H	107	Total 831	C 527	N 146	O 154	S 4	0	0
2	G	107	Total 831	C 527	N 146	O 154	S 4	0	0
2	F	107	Total 831	C 527	N 146	O 154	S 4	0	0

- Molecule 3 is ADENOSINE-5'-TRIPHOSPHATE (three-letter code: ATP) (formula:  $C_{10}H_{16}N_5O_{13}P_3$ ).



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

- Molecule 4 is CALCIUM ION (three-letter code: CA) (formula: Ca).

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

- Molecule 5 is ZINC ION (three-letter code: ZN) (formula: Zn).

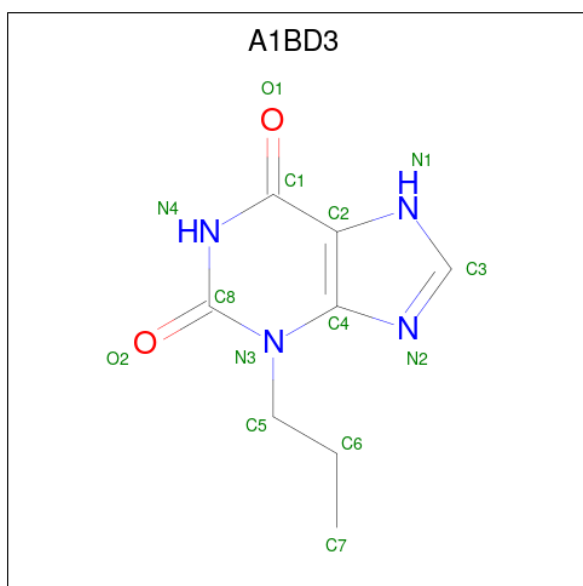
Mol	Chain	Residues	Atoms		AltConf
5	A	1	Total	Zn	0
			1	1	

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

- Molecule 6 is enprofylline (three-letter code: A1BD3) (formula: C<sub>8</sub>H<sub>10</sub>N<sub>4</sub>O<sub>2</sub>) (labeled as "Ligand of Interest" by depositor).

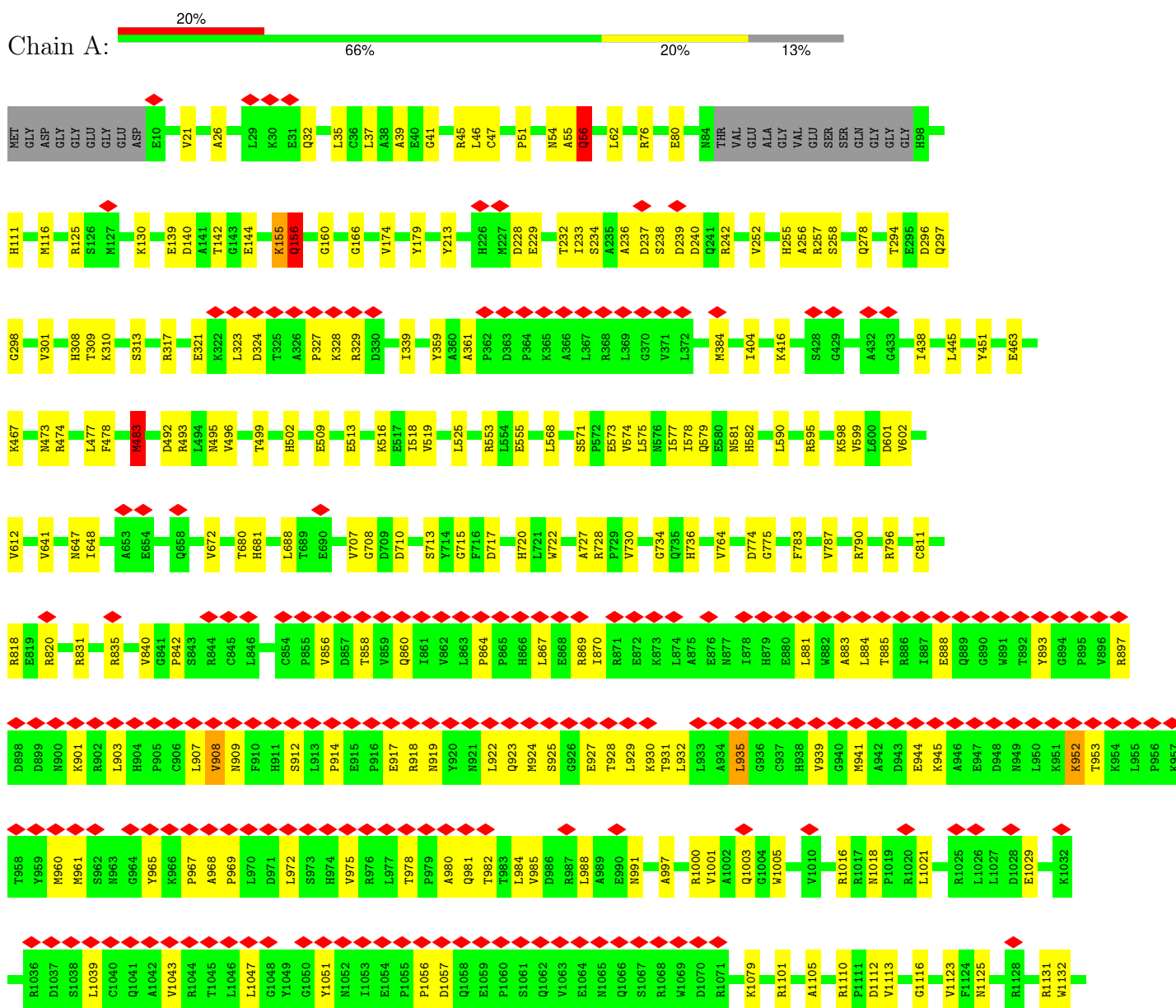


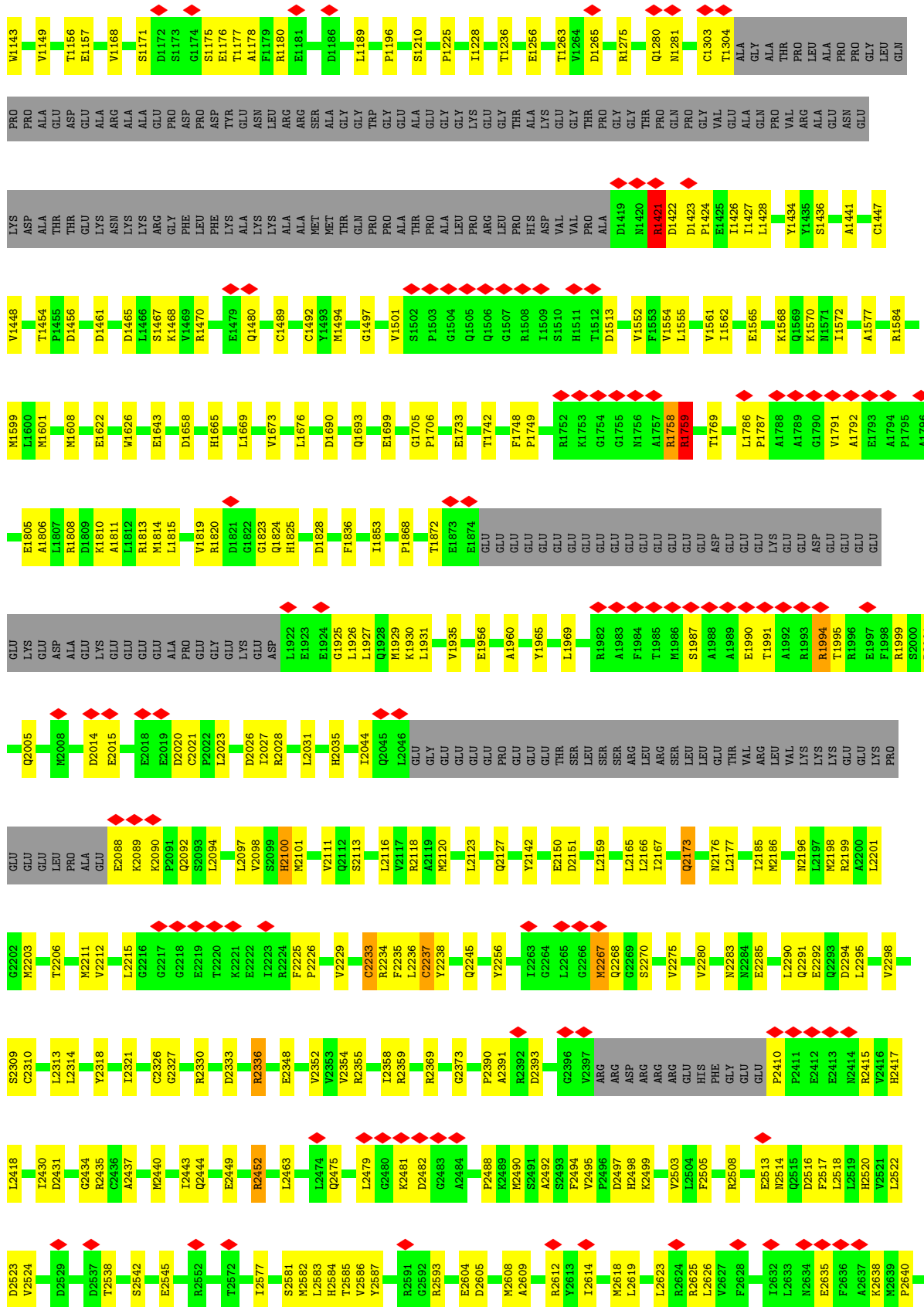
Mol	Chain	Residues	Atoms				AltConf
6	A	1	Total	C	N	O	0
			14	8	4	2	
6	B	1	Total	C	N	O	0
			14	8	4	2	
6	D	1	Total	C	N	O	0
			14	8	4	2	
6	C	1	Total	C	N	O	0
			14	8	4	2	

### 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

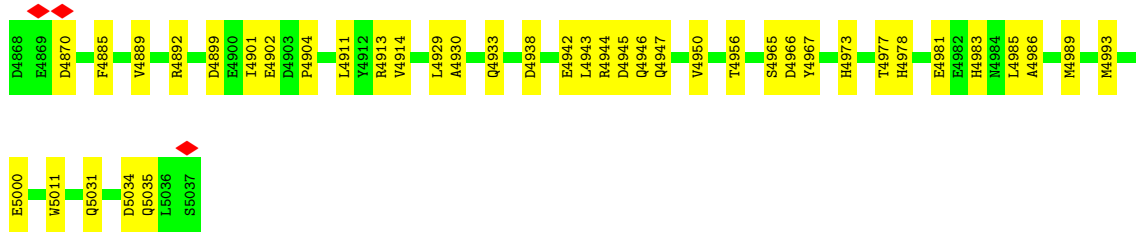




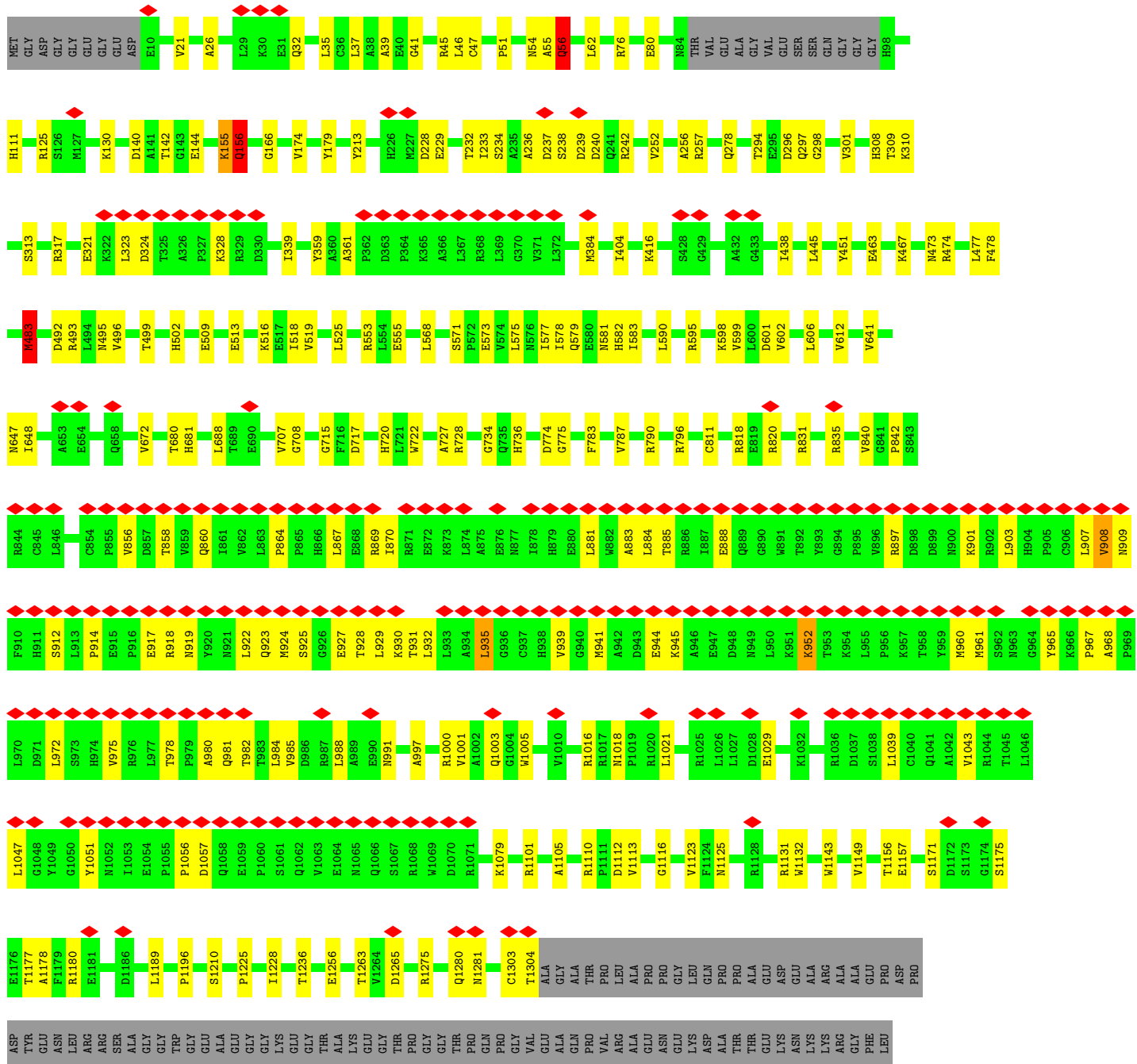
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P3293	P3294	A3295	L3296	P3297	A3298	G3299	A3300	P3301	P3302	C3303	T3304	T3305	A3306	L3312	L3316	G3317	N3318	L3319	R3320	L3322	L3323	V3324	N3325	N3326	L3327	G3328	L3329	D3330	E3331	A3332	W3335	K3336	R3337	L3338	V3339	V3340	F3341	A3342	Q3343	P3344	L3345	V3346	S3347	R3350	L3354	H3355	S3356	R3357	F3358	P3359	P3360	T3361	L3362	R3226	E3226							
R3227	A3228	I3229	L3230	G3231	P3232	P3233	S3234	V3236	E3237	M3238	C3240	P3241	D3242	I3243	V3244	V3245	L3246	D3247	R3248	L3249	N3250	A3251	D3252	A3257	E3258	S3259	G3260	A3261	R3262	Y3263	T3264	E3265	M3266	M3266	P3267	H3268	P3275	M3276	L3281	R3282	R3283	W3284	E3286	C3288	P3289	E3290	A3291	P3292														
P3293	P3294	A3295	L3296	P3297	A3298	G3299	A3300	P3301	P3302	C3303	T3304	T3305	A3306	L3312	L3316	G3317	N3318	L3319	R3320	L3322	L3323	V3324	N3325	N3326	L3327	G3328	L3329	D3330	E3331	A3332	W3335	K3336	R3337	L3338	V3339	V3340	F3341	A3342	Q3343	P3344	L3345	V3346	S3347	R3350	L3354	H3355	S3356	R3357	F3358	P3359	P3360	T3361	L3362	R3226	E3226							
G3363	R3364	L3365	R3366	K3367	R3368	A3369	V3372	V3373	A3374	E3375	E3376	E3377	Q3378	L3379	R3380	L3381	E3382	A3383	K3384	A3385	E3386	E3387	E3388	E3389	G3390	E3391	L3392	L3393	V3394	R3395	L3401	R3402	R3403	D3404	L3405	Y3406	A3407	L3408	Y3409	P3410	L3411	L3412	L3413	R3414	R3420	L3434	F3435	F3442	W3445	S3446	K3447	S3448	H3449									
R3272	A2723	E2724	K2725	LYS	ALA	THR	THR	VAL	ASP	PRO	ARG	ALA	GLU	GLY	N2734	E2735	E2736	E2737	R2738	L2739	V2740	E2741	T2742	L2743	N2744	V2745	I2746	L2747	P2748	E2749	K2750	L2751	D2752	S2753	F2754	I2755	N2756	K2757	F2758	A2759	P2760	Y2761	T2762	H2763	A2764	K2765	W2766	A2767	F2768	D2769	E2770	L2771	Q2772	L2773	N2774	W2775	S2776	L2777	E2778	E2779	N2780	
D2782	E2783	E2784	L2785	T2786	T2787	H2788	P2789	M2790	L2791	L2792	P2793	K2794	E2795	P2796	F2797	S2798	E2799	R2800	D2801	K2802	E2803	L2804	Y2805	R2806	W2807	P2808	L2809	K2810	E2811	S2812	L2813	K2814	A2815	M2816	L2817	E2818	W2819	E2820	W2821	T2822	L2823	E2824	K2825	A2826	F2827	D2828	E2829	K2830	L2831	Q2832	E2833	GLU	ARG	THR	GLU	LYS	LYS	LYS	THR	ARG	LYS	N2780
ILE	SER	GLN	THR	ALA	GLN	THR	TYR	ASP	PRO	ARG	ALA	GLU	GLY	Y2855	W2856	P2857	Q2858	P2859	P2860	D2861	L2862	S2863	G2864	T2865	T2866	L2867	S2868	R2869	E2870	L2871	Q2872	A2873	W2874	A2875	E2876	Q2877	L2878	A2879	E2880	M2881	Y2882	H2883	W2884	T2885	W2886	G2887	R2888	K2889	K2890	L2891	Q2892	E2893	L2894	E2895	K2896	R2897	K2898	G2899	Q2900	T2901		
H2902	P2903	L2904	L2905	V2906	P2907	Y2908	D2909	T2910	L2911	T2912	A2913	K2914	E2915	K2916	A2917	R2918	D2919	R2920	E2921	A2922	A2923	Q2924	E2925	L2926	L2927	K2928	F2929	L2930	Q2931	M2932	N2933	G2934	Y2935	A2936	V2937	T2938	R2939	GLY	LEU	LYS	ASP	MET	GLU	L2946	T2947	T2948	S2949	S2950	I2951	E2952	K2953	R2954	A2955	A2956	F2957	G2958	F2959	L2960				
W2966	M2967	D2968	L2969	S2970	F2973	L2974	A2975	H2976	L2977	E2978	V2979	W2980	V2981	S2982	R2983	G2984	R2985	V2986	E2987	K2988	S2989	P2990	H2991	E2992	I2995	F2998	A2999	K3000	I3001	L3002	P3004	L3005	I3006	Y3009	F3010	L3015	Y3016	F3017	L3018	S3019	T3020	P3021	P3022	K3023	V3024	L3025	G3026	S3027	G3028	G3029	H3030	A3031	S3032									
N3033	K3034	E3035	K3036	I3039	L3042	F3043	L3046	A3047	A3048	L3049	V3050	R3051	H3052	R3053	V3054	S3055	V3056	F3057	G3058	T3059	D3060	A3061	V3064	V3065	N3066	C3067	L3068	H3069	I3070	L3071	A3072	R3073	S3074	L3075	D3076	A3077	R3078	T3079	V3080	M3081	K3082	S3083	G3084	P3085	E3086	I3087	V3088	K3089	L3092	R3093	S3094	F3095	F3096	E3097								
S3098	A3099	S3100	T3103	E3104	K3105	M3106	V3107	L3110	R3111	L3112	G3113	K3114	V3115	S3116	GLN	ALA	THR	GLN	VAL	K3123	G3124	V3125	G3126	Q3127	H3128	L3129	T3130	T3133	V3134	A3135	L3136	L3137	P3138	V3139	L3140	T3141	T3142	L3143	F3144	Q3149	H3150	Q3151	F3152	G3153	D3154	D3155	V3156	L3157	L3158	D3159	D3160	V3161	Q3162	V3163								
S3164	C3165	Y3166	R3167	L3169	C3170	S3171	I3172	L3175	G3176	T3177	T3178	K3179	N3180	T3181	Y3182	V3183	E3184	K3185	L3186	R3187	L3190	G3191	C3192	C3193	L3194	A3195	R3196	L3197	A3198	A3199	M3201	P3202	V3203	P3204	F3205	L3206	E3207	L3210	N3211	E3212	Y3213	N3214	A3215	C3216	S3217	V3218	T3219	T3220	T3221	K3222	S3223	P3224	R3226	E3226								
R3227	A3228	I3229	L3230	G3231	P3232	P3233	S3234	V3236	E3237	M3238	C3240	P3241	D3242	I3243	V3244	V3245	L3246	D3247	R3248	L3249	N3250	A3251	D3252	A3257	E3258	S3259	G3260	A3261	R3262	Y3263	T3264	E3265	M3266	P3267	H3268	P3269	L3270	E3271	I3272	T3273	L3274	P3275	M3276	L3281	R3282	R3283	W3284	E3286	C3288	P3289	E3290	A3291	P3292									
P3293	P3294	A3295	L3296	P3297	A3298	G3299	A3300	P3301	P3302	C3303	T3304	T3305	A3306	L3312	L3316	G3317	N3318	L3319	R3320	L3322	L3323	V3324	N3325	N3326	L3327	G3328	L3329	D3330	E3331	A3332	W3335	K3336	R3337	L3338	V3339	V3340	F3341	A3342	Q3343	P3344	L3345	V3346	S3347	R3350	L3354	H3355	S3356	R3357	F3358	P3359	P3360	T3361	L3362	R3226	E3226							
G3363	R3364	L3365	R3366	K3367	R3368	A3369	V3372	V3373	A3374	E3375	E3376	E3377	Q3378	L3379	R3380	L3381	E3382	A3383	K3384	A3385	E3386	E3387	E3388	E3389	G3390	E3391	L3392	L3393	V3394	R3395	L3401	R3402	R3403	D3404	L3405	Y3406	A3407	L3408	Y3409	P3410	L3411	L3412	L3413	R3414	R3420	L3434	F3435	F3442	W3445	S3446	K3447	S3448	H3449									

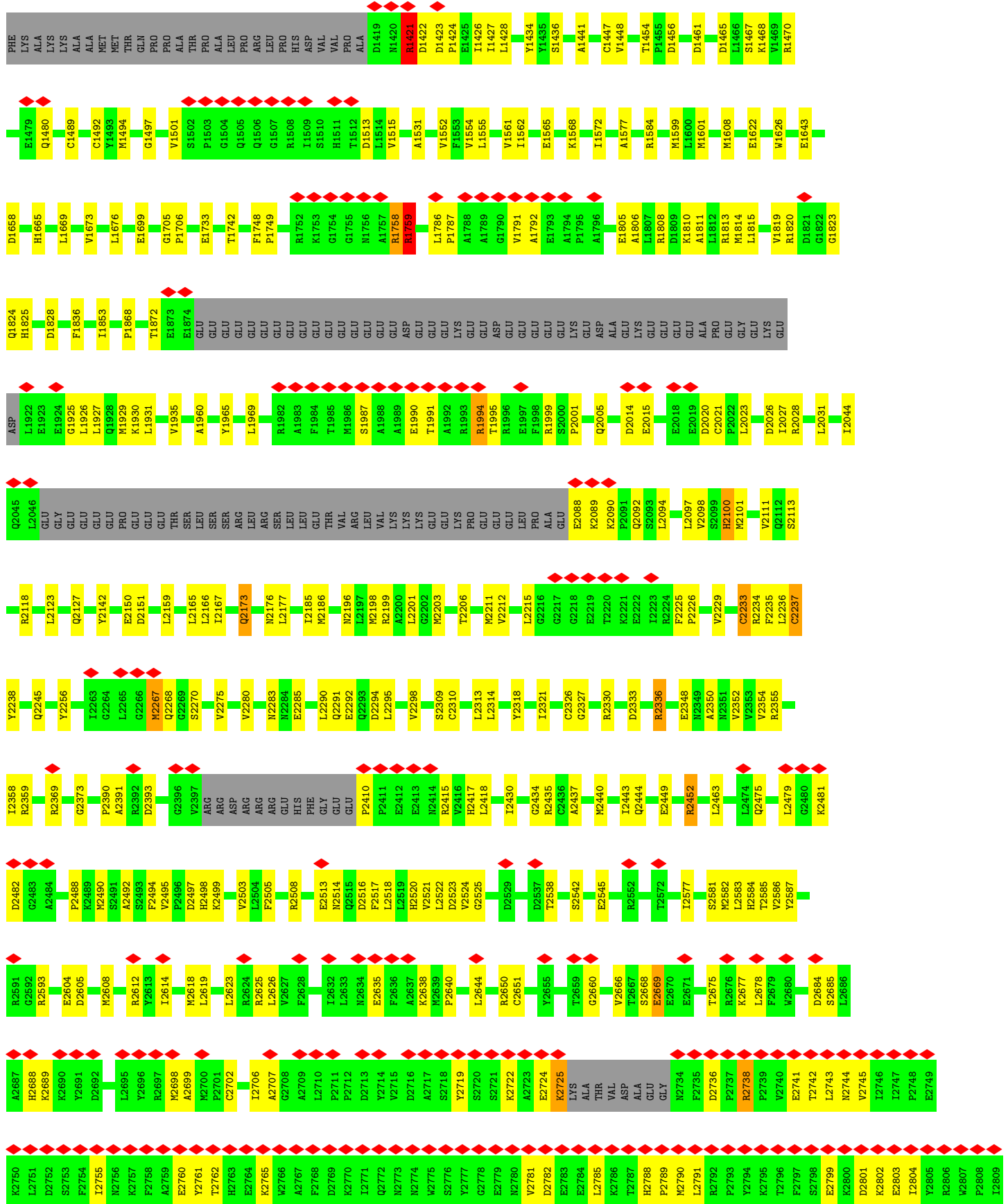




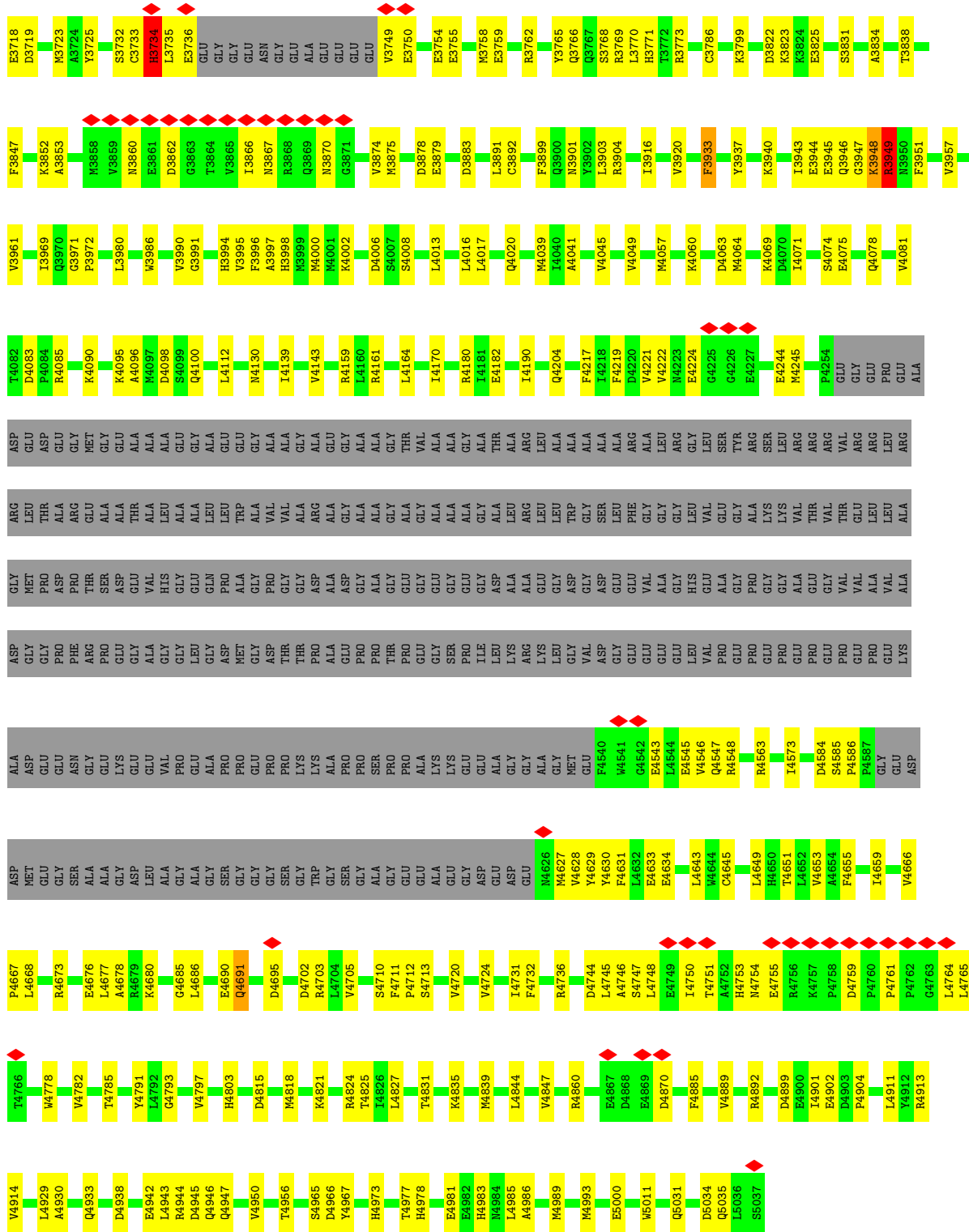


• Molecule 1: Ryanodine receptor 1



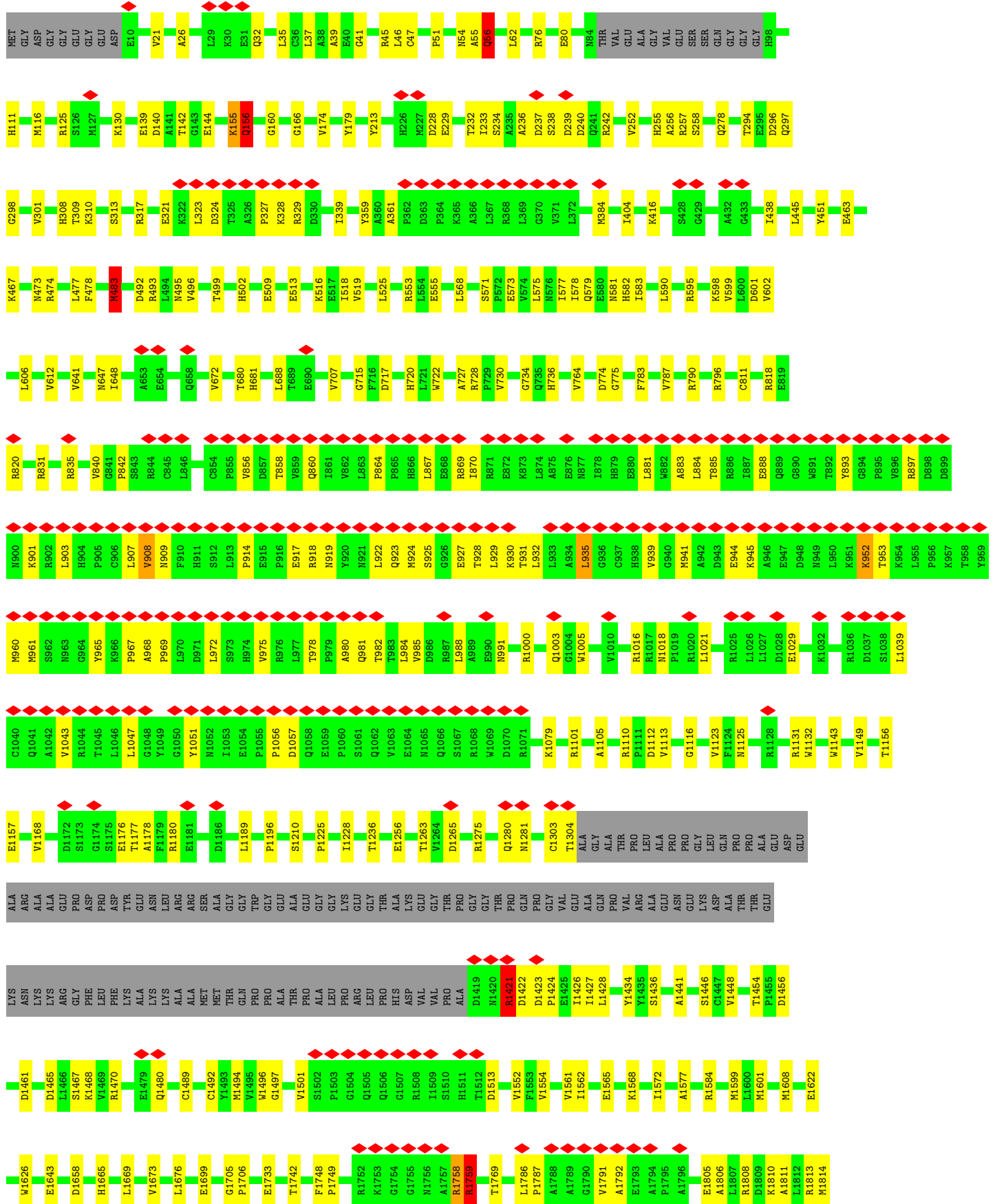






● Molecule 1: Ryanodine receptor 1







F3950	F3951	V3957	V3961	I3969	I3970	P3972	L3980	E3861	D3862	G3863	T3864	V3865	I3866	N3867	Q3868	N3870	G3871	V3874	M3875	D3876	E3879	F3880	D3883	L3891	C3892	F3899	Q3900	N3901	L3902	R3904	I3916	V3920	F3933	V3937	K3940	I3943	E3944	Q3945	Q3946	G3947	K3948	R3949												
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D3252	I3253	A3257	S3258	G3260	A3261	R3262	Y3263	T3264	E3265	M3266	P3267	H3268	V3269	L3270	E3271	I3272	T3273	L3274	P3275	M3276	S3279	Y3280	L3281	P3282	R3283	M3284	W3285	E3286	R3287	G3288	P3289	E3290	A3291	P3292	P3293	P3294	A3295	L3296	A3298	G3299	A3300	P3301	P3302	P3303	C3304	T3305	A3306	L3312	L3316	G3317	N3318	I3319	L3320	
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E3386	A3387	E3388	E3389	G3390	E3391	L3392	L3393	R3394	R3395	L3401	C3402	R3403	D3404	L3405	Y3406	A3407	Y3409	P3410	L3411	L3412	I3413	R3414	R3420	L3434	F3435	G3439	F3442	W3445	S3446	K3447	S3448	H3449	N3450	F3451	K3452	R3453	E3454	E3455	Y3459	V3460	Q3461	N3462	E3463	I3464	N3465	M3466	Q3467	F3469	L3470	T3471				
A3472	D3473	S3474	K3475	S3476	K3477	M3478	A3479	LYS	ALA	ASP	GLN	SER	GLY	SER	ASP	GLN	ARG	THR	LYS	LYS	R3498	R3499	G3500	D3501	R3502	S3504	V3505	Q3506	T3507	S3508	L3509	V3511	A3512	T3513	L3514	K3515	K3516	G3521	L3522	N3523	M3524	P3527	Q3530	D3531	L3532	T3533	N3534	L3535	A3536					
K3537	T3538	A3541	K3542	K3543	D3544	T3545	D3546	E3547	R3550	E3551	F3552	L3553	Q3554	N3555	N3556	L3557	H3558	L3559	Q3560	G3561	V3562	E3563	E3564	G3565	S3566	R3570	M3573	R3577	G3578	L3579	F3580	G3581	F3582	E3583	E3584	D3585	A3586	D3587	D3588	P3589	K3590	L3592	V3593	V3596	V3602	L3603	Y3604	H3605	E3607					
E3610	H3611	P3612	Y3613	K3614	K3615	K3616	K3617	A3618	V3619	W3620	H3621	K3622	L3623	L3624	S3625	K3626	Q3627	R3628	R3629	R3630	A3631	V3632	A3634	C3635	F3636	M3637	R3638	T3639	P3640	L3644	N3651	E3655	S3656	Y3657	A3660	W3661	M3673	E3682	Q3683	E3684	E3685	E3686	E3687	E3688	E3689	V3690	E3691	E3692	K3693	D3696				
H3699	L3703	E3718	D3719	M3723	A3724	V3725	S3732	C3733	H3734	L3735	E3736	GLU	GLY	GLY	GLU	ASN	GLY	ALA	GLU	GLU	V3749	E3750	E3755	E3759	R3762	V3765	Q3766	Q3767	S3768	R3769	L3770	H3771	T3772	R3773	C3786	K3799	D3822	K3823	K3824	E3825	S3831	A3834												
L3835	T3838	F3847	K3852	A3853	M3858	V3859	N3860	E3861	D3862	G3863	T3864	V3865	I3866	N3867	Q3868	N3870	G3871	V3874	M3875	D3876	E3879	F3880	D3883	L3891	C3892	F3899	Q3900	N3901	L3902	R3904	I3916	V3920	F3933	V3937	K3940	I3943	E3944	Q3945	Q3946	G3947	K3948	R3949												

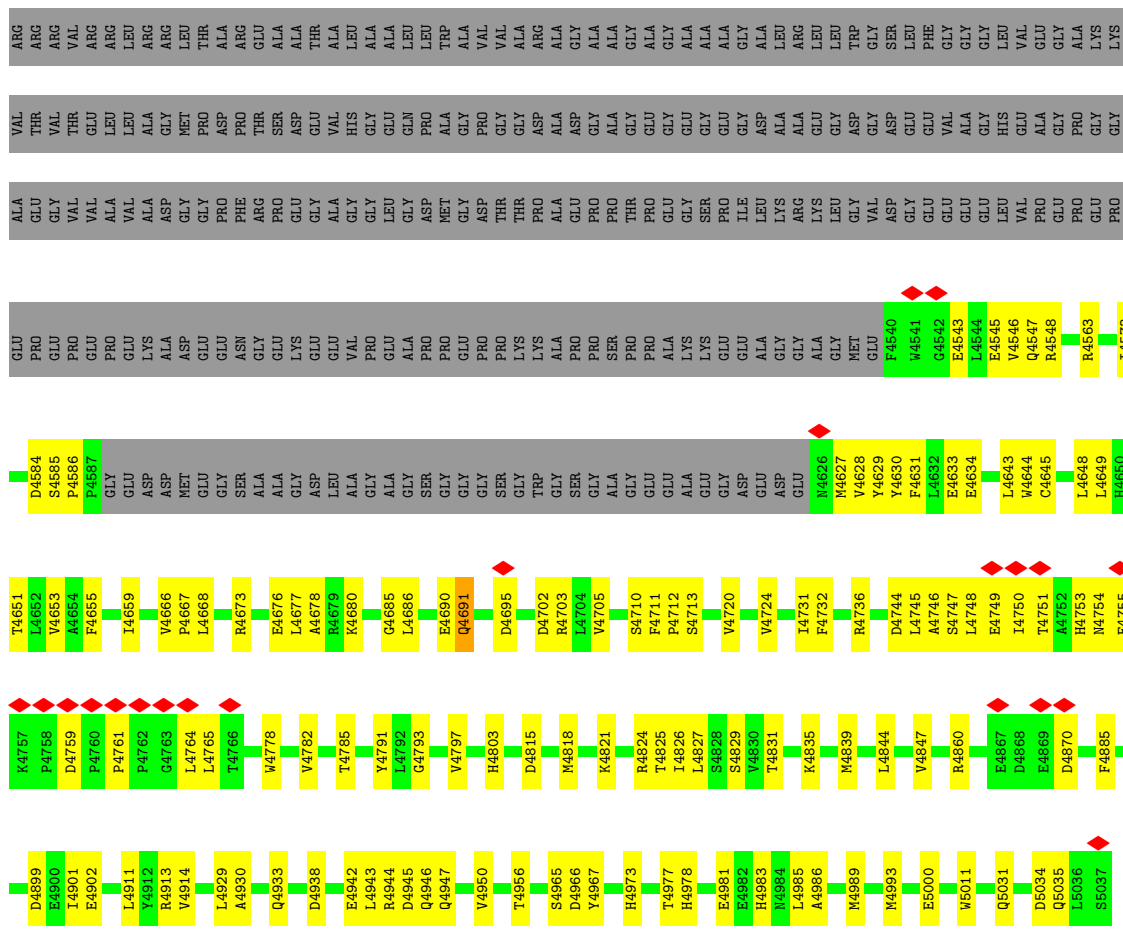




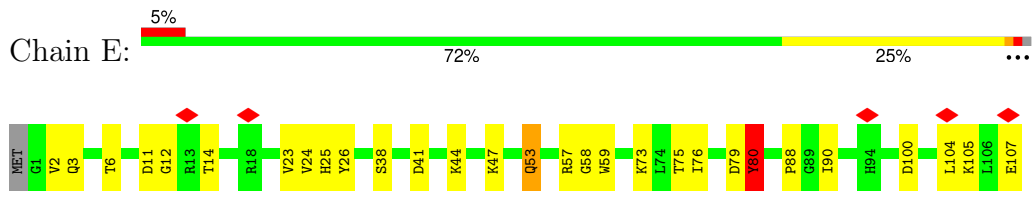




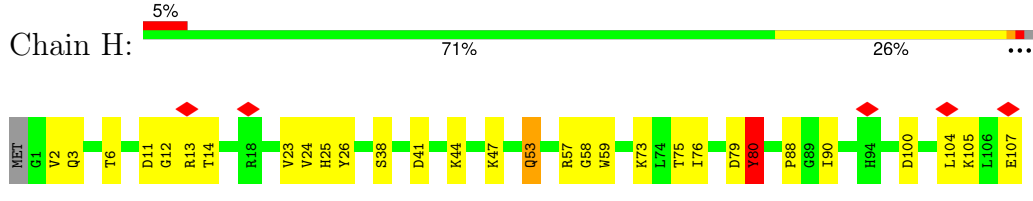
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GLU	R3111	E3238	V3373	V3460	M3523	V3602	E3685	D3822	Q3946	D4070	GLU
L3112	L3112	M3239	A3374	Q3461	M3524	L3603	E3686	K3823	G3947	I4071	GLY
G3113	G3113	C3240	E3376	N3462	P3527	Y3604	E3687	K3824	R3948	S4074	GLU
K3114	K3114	P3241	E3377	N3463	Q3530	H3605	E3688	E3825	M3949	S4075	PRO
V3115	V3115	P3241	Q3377	I3464	Q3530	H3605	E3688	E3825	N3950	E4076	GLU
S3116	S3116	I3243	Q3378	N3465	D3531	L3606	E3689	S3831	F3951	Q4078	ALA
GLN	ALA	P3244	L3379	N3466	D3531	E3607	V3690	A3834	V3957	V4081	ASP
ALA	ARG	V3182	R3380	N3467	I3533	E3610	E3691	T3838	V3961	V4082	ASP
THR	THR	L3246	L3381	S3468	M3534	H3611	E3692	F3847	D4083	D4083	GLU
GLN	GLN	D3247	A3382	F3469	L3535	P3612	K3693	K3852	F4084	F4084	GLY
VAL	VAL	R3248	A3383	L3470	A3536	Y3613	H3699	A3853	R4085	R4085	MET
R3123	R3123	R3248	K3384	T3471	K3537	Y3614	L3703	K3852	G3971	K4090	GLY
G3124	G3124	M3250	A3385	A3472	R3537	R3614	E3718	A3853	P3972	K4095	ALA
V3125	V3125	A3251	E3386	D3473	T3538	S3615	D3719	M3858	L3980	K4095	ALA
G3126	G3126	A3251	E3387	S3474	A3541	K3616	D3719	V3859	A4096	A4096	ALA
Q3127	Q3127	A3251	E3388	K3475	L3542	K3617	M3723	N3860	M4097	M4097	GLU
N3128	N3128	A3251	E3389	K3476	K3543	A3618	A3724	N3860	D4098	D4098	GLU
L3129	L3129	A3251	E3390	S3477	D3544	V3619	Y3725	E3861	Q4100	Q4100	ALA
T3130	T3130	A3251	E3391	K3477	T3545	W3620	I3728	D3862	G3991	G3991	GLY
T3133	T3133	A3251	L3392	A3479	D3546	H3621	L3728	G3863	V3991	V3991	ALA
V3134	V3134	A3251	L3393	LYS	E3547	R3622	S3732	T3864	H3994	H3994	ALA
A3135	A3135	A3251	R3394	ALA	F3552	L3623	G3732	V3865	V3995	V3995	GLY
L3136	L3136	A3251	R3395	GLY	L3553	L3624	L3624	I3866	F3996	F3996	GLY
L3137	L3137	A3251	R3395	ASP	L3554	S3625	H3734	I3867	A3997	A3997	ALA
P3138	P3138	A3251	L3401	ALA	M3555	K3626	L3735	N3868	H3998	H3998	GLY
V3139	V3139	A3251	C3402	GLN	N3556	R3628	E3736	Q3868	M4000	M4000	ALA
L3140	L3140	A3251	R3403	SER	N3557	R3628	GLU	N3870	M4001	M4001	ALA
T3141	T3141	A3251	R3403	GLY	L3557	R3629	GLY	G3871	K4002	K4002	GLY
T3142	T3142	A3251	D3404	SER	L3558	R3630	ASN	D3878	D4006	D4006	VAL
L3143	L3143	A3251	L3405	ASP	L3559	F3632	GLU	E3879	S4007	S4007	ALA
F3144	F3144	A3251	Y3406	GLN	Q3560	Y3633	GLU	D3883	S4008	S4008	ALA
R3149	R3149	A3251	A3407	THR	G3561	V3633	ALA	L3883	L4013	L4013	THR
H3150	H3150	A3251	Y3409	ARG	K3562	A3634	GLU	L3891	L4016	L4016	ARG
R3151	R3151	A3251	P3410	LYS	V3563	A3634	GLU	C3892	L4017	L4017	ARG
F3152	F3152	A3251	L3411	LYS	G3565	C3635	GLU	F3899	Q4020	Q4020	LEU
G3153	G3153	A3251	L3412	LYS	S3566	F3636	GLU	Q3900	M4039	M4039	ALA
D3154	D3154	A3251	I3413	R3498	R3570	R3637	V3749	N3901	I4218	I4218	ALA
D3155	D3155	A3251	R3414	R3499	M3573	M3638	E3750	Y3902	F4219	F4219	ALA
V3156	V3156	A3251	R3420	G3500	G3573	T3639	E3755	L3903	M4220	M4220	ALA
I3157	I3157	A3251	L3434	D3501	M3573	L3641	E3759	R3904	V4221	V4221	ALA
L3158	L3158	A3251	F3435	Y3503	G3578	L3644	R3762	I3916	M4223	M4223	LEU
D3159	D3159	A3251	F3435	S3504	L3579	L3644	R3762	I3916	M4057	M4057	LEU
D3160	D3160	A3251	G3439	V3505	P3580	N3651	Y3765	V3920	K4060	K4060	LEU
I3162	I3162	A3251	G3442	Q3506	G3581	E3655	Q3766	F3933	G4225	G4225	LEU
V3163	V3163	A3251	F3442	T3507	G3580	F3656	Q3767	F3933	G4226	G4226	LEU
S3164	S3164	A3251	F3442	S3508	R3582	Y3657	R3769	Y3937	E4227	E4227	ARG
C3165	C3165	A3251	W3445	L3509	E3583	A3660	R3769	K3940	M4063	M4063	ARG
R3225	R3225	A3251	S3446	I3510	E3584	V3661	H3770	K3940	M4064	M4064	LEU
E3226	E3226	A3251	K3447	A3512	E3584	V3661	H3771	I3943	E4244	E4244	LEU
R3227	R3227	A3251	S3448	L3514	E3586	T3664	H3771	E3944	M4245	M4245	LEU
A3228	A3228	A3251	H3449	K3515	D3587	M3673	C3786	E3944			
A3228	A3228	A3251	K3452	K3516	D3588	M3673	C3786	E3944			
L3230	L3230	A3251	R3453	K3516	P3589	F3682	Q3683	E3944			
G3231	G3231	A3251	R3453	K3516	E3590	F3682	Q3683	E3944			
L3232	L3232	A3251	E3455	G3521	I3592	V3593	V3593	E3944			
P3233	P3233	A3251	E3455	G3521	I3592	V3593	V3593	E3944			
V3236	V3236	A3251	E3455	G3521	I3592	V3593	V3593	E3944			



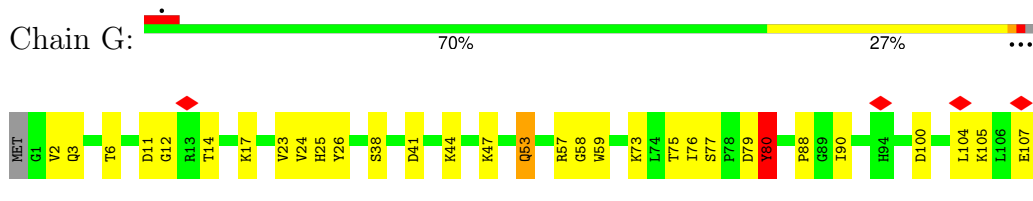
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



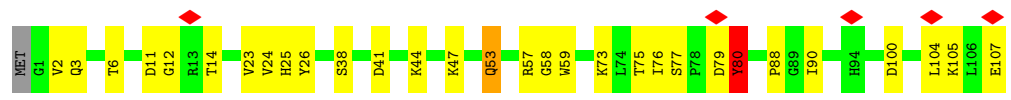
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



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



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



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	94090	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	58	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	1500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.513	Depositor
Minimum map value	-0.205	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.021	Depositor
Recommended contour level	0.1	Depositor
Map size (Å)	427.52, 427.52, 427.52	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.835, 0.835, 0.835	Depositor

## 5 Model quality i

### 5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: ATP, ZN, A1BD3, CA

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
1	A	0.43	23/35977 (0.1%)	0.72	47/48726 (0.1%)
1	B	0.43	24/35977 (0.1%)	0.72	46/48726 (0.1%)
1	C	0.43	23/35977 (0.1%)	0.72	47/48726 (0.1%)
1	D	0.43	24/35977 (0.1%)	0.72	46/48726 (0.1%)
2	E	1.65	9/850 (1.1%)	1.98	11/1146 (1.0%)
2	F	1.65	9/850 (1.1%)	1.98	11/1146 (1.0%)
2	G	1.65	9/850 (1.1%)	1.98	11/1146 (1.0%)
2	H	1.65	9/850 (1.1%)	1.98	11/1146 (1.0%)
All	All	0.49	130/147308 (0.1%)	0.77	230/199488 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	1	11
1	B	1	11
1	C	1	11
1	D	1	11
2	E	0	1
2	F	0	1
2	G	0	1
2	H	0	1
All	All	4	48

All (130) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	G	80	TYR	CG-CD1	-23.10	1.09	1.39
2	E	80	TYR	CG-CD1	-23.07	1.09	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	H	80	TYR	CG-CD1	-23.06	1.09	1.39
2	F	80	TYR	CG-CD1	-23.01	1.09	1.39
1	D	3321	ARG	CG-CD	-22.80	0.94	1.51
1	A	3321	ARG	CG-CD	-22.77	0.95	1.51
1	C	3321	ARG	CG-CD	-22.77	0.95	1.51
1	B	3321	ARG	CG-CD	-22.75	0.95	1.51
2	G	80	TYR	CE1-CZ	-22.41	1.09	1.38
2	F	80	TYR	CE1-CZ	-22.40	1.09	1.38
2	H	80	TYR	CE1-CZ	-22.36	1.09	1.38
2	E	80	TYR	CE1-CZ	-22.35	1.09	1.38
2	E	80	TYR	CD2-CE2	20.16	1.69	1.39
2	F	80	TYR	CD2-CE2	20.12	1.69	1.39
2	H	80	TYR	CD2-CE2	20.10	1.69	1.39
2	G	80	TYR	CD2-CE2	20.10	1.69	1.39
2	E	80	TYR	CE2-CZ	-18.23	1.14	1.38
2	H	80	TYR	CE2-CZ	-18.21	1.14	1.38
2	G	80	TYR	CE2-CZ	-18.21	1.14	1.38
2	F	80	TYR	CE2-CZ	-18.21	1.14	1.38
1	D	2237	CYS	CB-SG	17.15	2.11	1.82
1	A	2237	CYS	CB-SG	17.13	2.11	1.82
1	B	2237	CYS	CB-SG	17.11	2.11	1.82
1	C	2237	CYS	CB-SG	17.11	2.11	1.82
1	A	3949	ARG	NE-CZ	-16.58	1.11	1.33
1	B	3949	ARG	NE-CZ	-16.58	1.11	1.33
1	C	3949	ARG	NE-CZ	-16.58	1.11	1.33
1	D	3949	ARG	NE-CZ	-16.57	1.11	1.33
2	E	80	TYR	CG-CD2	-15.66	1.18	1.39
2	F	80	TYR	CG-CD2	-15.65	1.18	1.39
2	H	80	TYR	CG-CD2	-15.62	1.18	1.39
2	G	80	TYR	CG-CD2	-15.61	1.18	1.39
1	C	3949	ARG	CG-CD	-14.71	1.15	1.51
1	A	3949	ARG	CG-CD	-14.70	1.15	1.51
1	B	3949	ARG	CG-CD	-14.70	1.15	1.51
1	A	2233	CYS	CB-SG	-14.69	1.57	1.82
1	B	2233	CYS	CB-SG	-14.69	1.57	1.82
1	C	2233	CYS	CB-SG	-14.69	1.57	1.82
1	D	3949	ARG	CG-CD	-14.67	1.15	1.51
1	D	2233	CYS	CB-SG	-14.67	1.57	1.82
1	B	3949	ARG	CB-CG	-12.92	1.17	1.52
1	A	3949	ARG	CB-CG	-12.89	1.17	1.52
1	D	3949	ARG	CB-CG	-12.89	1.17	1.52
1	C	3949	ARG	CB-CG	-12.89	1.17	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	3321	ARG	NE-CZ	-11.60	1.18	1.33
1	B	3321	ARG	NE-CZ	-11.60	1.18	1.33
1	D	3321	ARG	NE-CZ	-11.60	1.18	1.33
1	C	3321	ARG	NE-CZ	-11.60	1.18	1.33
1	B	3949	ARG	CZ-NH1	10.71	1.47	1.33
1	A	3949	ARG	CZ-NH1	10.68	1.47	1.33
1	D	3949	ARG	CZ-NH1	10.68	1.47	1.33
1	C	3949	ARG	CZ-NH1	10.65	1.46	1.33
1	A	952	LYS	CD-CE	-8.84	1.29	1.51
1	B	952	LYS	CD-CE	-8.84	1.29	1.51
1	D	952	LYS	CD-CE	-8.84	1.29	1.51
1	C	952	LYS	CD-CE	-8.84	1.29	1.51
1	A	3321	ARG	CZ-NH1	8.84	1.44	1.33
1	B	3321	ARG	CZ-NH1	8.84	1.44	1.33
1	D	3321	ARG	CZ-NH1	8.84	1.44	1.33
1	C	3321	ARG	CZ-NH1	8.84	1.44	1.33
1	A	3949	ARG	CD-NE	-8.53	1.31	1.46
1	B	3949	ARG	CD-NE	-8.53	1.31	1.46
1	D	3949	ARG	CD-NE	-8.51	1.31	1.46
1	C	3949	ARG	CD-NE	-8.49	1.32	1.46
1	B	3949	ARG	CZ-NH2	-7.52	1.23	1.33
1	A	3949	ARG	CZ-NH2	-7.48	1.23	1.33
1	C	3949	ARG	CZ-NH2	-7.48	1.23	1.33
1	D	3949	ARG	CZ-NH2	-7.46	1.23	1.33
1	A	3350	ARG	CZ-NH1	-7.06	1.23	1.33
1	D	3350	ARG	CZ-NH1	-7.06	1.23	1.33
1	C	3350	ARG	CZ-NH1	-7.06	1.23	1.33
1	B	3350	ARG	CZ-NH1	-7.04	1.23	1.33
1	A	1994	ARG	CZ-NH1	-6.60	1.24	1.33
1	B	1994	ARG	CZ-NH1	-6.60	1.24	1.33
1	D	1994	ARG	CZ-NH1	-6.60	1.24	1.33
1	C	1994	ARG	CZ-NH1	-6.60	1.24	1.33
1	B	3350	ARG	CG-CD	-6.52	1.35	1.51
1	C	3350	ARG	CG-CD	-6.52	1.35	1.51
1	A	3350	ARG	CG-CD	-6.50	1.35	1.51
1	D	3350	ARG	CG-CD	-6.50	1.35	1.51
1	A	2173	GLN	CB-CG	-6.27	1.35	1.52
1	D	2173	GLN	CB-CG	-6.27	1.35	1.52
1	C	2173	GLN	CB-CG	-6.27	1.35	1.52
1	B	2173	GLN	CB-CG	-6.26	1.35	1.52
1	B	3933	PHE	CG-CD2	-6.25	1.29	1.38
1	D	3933	PHE	CG-CD2	-6.25	1.29	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	3933	PHE	CG-CD2	-6.24	1.29	1.38
1	C	3933	PHE	CG-CD2	-6.24	1.29	1.38
1	B	3320	LEU	C-N	6.22	1.48	1.34
1	A	3320	LEU	C-N	6.19	1.48	1.34
1	D	3320	LEU	C-N	6.18	1.48	1.34
1	C	3320	LEU	C-N	6.18	1.48	1.34
2	G	53	GLN	CD-NE2	-6.17	1.17	1.32
2	E	53	GLN	CD-NE2	-6.16	1.17	1.32
2	H	53	GLN	CD-NE2	-6.15	1.17	1.32
2	F	53	GLN	CD-NE2	-6.15	1.17	1.32
1	B	56	GLN	CG-CD	-6.07	1.37	1.51
1	D	56	GLN	CG-CD	-6.07	1.37	1.51
1	C	56	GLN	CG-CD	-6.07	1.37	1.51
1	A	56	GLN	CG-CD	-6.07	1.37	1.51
2	F	53	GLN	CG-CD	-6.04	1.37	1.51
2	H	53	GLN	CG-CD	-6.03	1.37	1.51
2	G	53	GLN	CG-CD	-6.03	1.37	1.51
2	E	53	GLN	CG-CD	-6.00	1.37	1.51
2	E	73	LYS	CE-NZ	-5.97	1.34	1.49
2	G	73	LYS	CE-NZ	-5.96	1.34	1.49
2	F	73	LYS	CE-NZ	-5.96	1.34	1.49
2	H	73	LYS	CE-NZ	-5.95	1.34	1.49
1	B	3933	PHE	CD2-CE2	-5.76	1.27	1.39
1	D	3933	PHE	CD2-CE2	-5.76	1.27	1.39
1	A	3933	PHE	CD2-CE2	-5.73	1.27	1.39
1	C	3933	PHE	CD2-CE2	-5.71	1.27	1.39
1	A	3225	ARG	CB-CG	-5.53	1.37	1.52
1	B	3225	ARG	CB-CG	-5.53	1.37	1.52
1	D	3225	ARG	CB-CG	-5.53	1.37	1.52
1	C	3225	ARG	CB-CG	-5.52	1.37	1.52
1	A	156	GLN	CG-CD	-5.44	1.38	1.51
1	B	156	GLN	CG-CD	-5.44	1.38	1.51
1	D	156	GLN	CG-CD	-5.44	1.38	1.51
1	C	156	GLN	CG-CD	-5.44	1.38	1.51
2	G	44	LYS	CG-CD	5.34	1.70	1.52
2	H	44	LYS	CG-CD	5.33	1.70	1.52
2	F	44	LYS	CG-CD	5.32	1.70	1.52
2	E	44	LYS	CG-CD	5.31	1.70	1.52
1	B	416	LYS	CB-CG	-5.21	1.38	1.52
1	A	416	LYS	CB-CG	-5.19	1.38	1.52
1	C	416	LYS	CB-CG	-5.19	1.38	1.52
1	D	416	LYS	CB-CG	-5.18	1.38	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	1421	ARG	CZ-NH2	-5.05	1.26	1.33
1	D	1421	ARG	CZ-NH2	-5.05	1.26	1.33

All (230) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	3949	ARG	NE-CZ-NH1	-66.67	86.97	120.30
1	A	3949	ARG	NE-CZ-NH1	-66.63	86.99	120.30
1	C	3949	ARG	NE-CZ-NH1	-66.62	86.99	120.30
1	B	3949	ARG	NE-CZ-NH1	-66.59	87.00	120.30
2	F	80	TYR	CE1-CZ-CE2	-41.45	53.47	119.80
2	H	80	TYR	CE1-CZ-CE2	-41.43	53.52	119.80
2	E	80	TYR	CE1-CZ-CE2	-41.42	53.52	119.80
2	G	80	TYR	CE1-CZ-CE2	-41.42	53.53	119.80
1	D	3321	ARG	CG-CD-NE	32.45	179.95	111.80
1	C	3321	ARG	CG-CD-NE	32.45	179.94	111.80
1	A	3321	ARG	CG-CD-NE	32.44	179.92	111.80
1	B	3321	ARG	CG-CD-NE	32.42	179.88	111.80
1	D	3949	ARG	CG-CD-NE	30.43	175.70	111.80
1	A	3949	ARG	CG-CD-NE	30.41	175.65	111.80
1	B	3949	ARG	CG-CD-NE	30.41	175.65	111.80
1	C	3949	ARG	CG-CD-NE	30.37	175.58	111.80
1	B	3321	ARG	N-CA-CB	29.83	164.29	110.60
1	D	3321	ARG	N-CA-CB	29.83	164.29	110.60
1	A	3321	ARG	N-CA-CB	29.82	164.28	110.60
1	C	3321	ARG	N-CA-CB	29.82	164.28	110.60
1	A	3321	ARG	CD-NE-CZ	-22.87	91.58	123.60
1	B	3321	ARG	CD-NE-CZ	-22.87	91.58	123.60
1	D	3321	ARG	CD-NE-CZ	-22.87	91.58	123.60
1	C	3321	ARG	CD-NE-CZ	-22.87	91.58	123.60
2	E	80	TYR	CB-CG-CD1	20.80	133.48	121.00
2	G	80	TYR	CB-CG-CD1	20.77	133.46	121.00
2	H	80	TYR	CB-CG-CD1	20.75	133.45	121.00
2	F	80	TYR	CB-CG-CD1	20.67	133.40	121.00
2	G	80	TYR	CD1-CE1-CZ	19.57	137.41	119.80
2	E	80	TYR	CD1-CE1-CZ	19.55	137.40	119.80
2	F	80	TYR	CD1-CE1-CZ	19.52	137.37	119.80
2	H	80	TYR	CD1-CE1-CZ	19.52	137.36	119.80
2	F	80	TYR	CG-CD1-CE1	-19.03	106.08	121.30
2	H	80	TYR	CG-CD1-CE1	-18.99	106.11	121.30
2	E	80	TYR	CG-CD1-CE1	-18.95	106.14	121.30
2	G	80	TYR	CG-CD1-CE1	-18.94	106.15	121.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	80	TYR	CD1-CG-CD2	-18.55	97.50	117.90
2	H	80	TYR	CD1-CG-CD2	-18.53	97.52	117.90
2	F	80	TYR	CD1-CG-CD2	-18.52	97.53	117.90
2	G	80	TYR	CD1-CG-CD2	-18.52	97.53	117.90
1	A	3321	ARG	NH1-CZ-NH2	-18.44	99.12	119.40
1	B	3321	ARG	NH1-CZ-NH2	-18.43	99.12	119.40
1	D	3321	ARG	NH1-CZ-NH2	-18.43	99.12	119.40
1	C	3321	ARG	NH1-CZ-NH2	-18.43	99.12	119.40
2	F	44	LYS	CD-CE-NZ	-18.42	69.34	111.70
2	E	44	LYS	CD-CE-NZ	-18.41	69.36	111.70
2	H	44	LYS	CD-CE-NZ	-18.40	69.37	111.70
2	G	44	LYS	CD-CE-NZ	-18.40	69.38	111.70
1	B	3321	ARG	NE-CZ-NH1	15.14	127.87	120.30
1	D	3321	ARG	NE-CZ-NH1	15.14	127.87	120.30
1	C	3321	ARG	NE-CZ-NH1	15.14	127.87	120.30
1	A	3321	ARG	NE-CZ-NH1	15.12	127.86	120.30
2	F	80	TYR	CZ-CE2-CD2	14.89	133.20	119.80
2	G	80	TYR	CZ-CE2-CD2	14.88	133.19	119.80
2	H	80	TYR	CZ-CE2-CD2	14.87	133.18	119.80
2	E	80	TYR	CZ-CE2-CD2	14.85	133.16	119.80
1	B	3949	ARG	NE-CZ-NH2	14.44	127.52	120.30
1	B	3321	ARG	NE-CZ-NH2	-14.42	113.09	120.30
1	D	3321	ARG	NE-CZ-NH2	-14.42	113.09	120.30
1	C	3321	ARG	NE-CZ-NH2	-14.42	113.09	120.30
1	B	3321	ARG	CB-CA-C	-14.41	81.57	110.40
1	D	3321	ARG	CB-CA-C	-14.41	81.57	110.40
1	C	3321	ARG	CB-CA-C	-14.41	81.57	110.40
1	A	3321	ARG	CB-CA-C	-14.41	81.59	110.40
1	A	3321	ARG	NE-CZ-NH2	-14.37	113.11	120.30
1	A	3949	ARG	NE-CZ-NH2	14.36	127.48	120.30
1	C	3949	ARG	NE-CZ-NH2	14.36	127.48	120.30
1	D	3949	ARG	NE-CZ-NH2	14.26	127.43	120.30
2	E	80	TYR	CE1-CZ-OH	10.46	148.35	120.10
2	G	80	TYR	CE1-CZ-OH	10.46	148.35	120.10
2	H	80	TYR	CE1-CZ-OH	10.45	148.32	120.10
2	F	80	TYR	CE1-CZ-OH	10.45	148.31	120.10
1	C	4039	MET	CB-CG-SD	10.43	143.67	112.40
1	A	4039	MET	CB-CG-SD	10.42	143.66	112.40
1	D	4039	MET	CB-CG-SD	10.42	143.66	112.40
1	B	4039	MET	CB-CG-SD	10.40	143.61	112.40
1	A	3321	ARG	N-CA-C	-10.40	82.92	111.00
1	C	3321	ARG	N-CA-C	-10.40	82.93	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	3321	ARG	N-CA-C	-10.39	82.95	111.00
1	D	3321	ARG	N-CA-C	-10.39	82.95	111.00
1	D	1421	ARG	CG-CD-NE	10.18	133.18	111.80
1	A	1421	ARG	CG-CD-NE	10.16	133.14	111.80
1	B	1421	ARG	CG-CD-NE	10.16	133.14	111.80
1	C	1421	ARG	CG-CD-NE	10.16	133.13	111.80
1	D	2725	LYS	CD-CE-NZ	10.13	134.99	111.70
1	A	2725	LYS	CD-CE-NZ	10.12	134.97	111.70
1	C	2725	LYS	CD-CE-NZ	10.12	134.97	111.70
1	B	2725	LYS	CD-CE-NZ	10.11	134.94	111.70
1	B	3949	ARG	CB-CG-CD	9.94	137.45	111.60
1	A	3949	ARG	CB-CG-CD	9.93	137.41	111.60
1	D	3949	ARG	CB-CG-CD	9.92	137.39	111.60
1	C	3949	ARG	CB-CG-CD	9.90	137.34	111.60
1	D	2267	MET	CB-CG-SD	9.74	141.63	112.40
1	B	2267	MET	CB-CG-SD	9.74	141.62	112.40
1	A	2267	MET	CB-CG-SD	9.73	141.59	112.40
1	C	2267	MET	CB-CG-SD	9.72	141.57	112.40
1	D	3949	ARG	NH1-CZ-NH2	-9.05	109.45	119.40
1	A	3949	ARG	NH1-CZ-NH2	-9.01	109.49	119.40
1	B	3949	ARG	NH1-CZ-NH2	-9.00	109.50	119.40
1	C	3949	ARG	NH1-CZ-NH2	-8.97	109.53	119.40
1	B	3320	LEU	C-N-CA	-8.50	100.45	121.70
1	D	3320	LEU	C-N-CA	-8.50	100.46	121.70
1	A	3320	LEU	C-N-CA	-8.48	100.49	121.70
1	C	3320	LEU	C-N-CA	-8.48	100.49	121.70
1	B	2452	ARG	CG-CD-NE	8.48	129.60	111.80
1	D	2452	ARG	CG-CD-NE	8.46	129.57	111.80
1	A	2452	ARG	CG-CD-NE	8.46	129.57	111.80
1	C	2452	ARG	CG-CD-NE	8.43	129.50	111.80
2	F	80	TYR	CB-CG-CD2	8.38	126.03	121.00
2	H	80	TYR	CB-CG-CD2	8.37	126.02	121.00
2	E	80	TYR	CB-CG-CD2	8.35	126.01	121.00
1	A	2267	MET	CA-CB-CG	8.33	127.46	113.30
1	C	2267	MET	CA-CB-CG	8.32	127.44	113.30
1	B	2267	MET	CA-CB-CG	8.31	127.43	113.30
1	D	2267	MET	CA-CB-CG	8.31	127.43	113.30
2	G	80	TYR	CB-CG-CD2	8.29	125.97	121.00
1	B	3933	PHE	CZ-CE2-CD2	8.05	129.76	120.10
1	D	3933	PHE	CZ-CE2-CD2	8.05	129.76	120.10
1	C	3933	PHE	CZ-CE2-CD2	8.03	129.74	120.10
1	A	3933	PHE	CZ-CE2-CD2	8.02	129.72	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	3321	ARG	CB-CG-CD	7.88	132.10	111.60
1	C	3321	ARG	CB-CG-CD	7.87	132.07	111.60
1	D	3321	ARG	CB-CG-CD	7.87	132.06	111.60
1	A	3321	ARG	CB-CG-CD	7.86	132.04	111.60
1	B	4039	MET	CG-SD-CE	-7.78	87.76	100.20
1	A	4039	MET	CG-SD-CE	-7.77	87.77	100.20
1	C	4039	MET	CG-SD-CE	-7.76	87.78	100.20
1	D	4039	MET	CG-SD-CE	-7.76	87.78	100.20
1	B	156	GLN	CG-CD-NE2	-7.21	99.39	116.70
1	A	156	GLN	CG-CD-NE2	-7.20	99.43	116.70
1	D	156	GLN	CG-CD-NE2	-7.20	99.43	116.70
1	C	156	GLN	CG-CD-NE2	-7.20	99.43	116.70
1	D	3384	LYS	CG-CD-CE	7.01	132.94	111.90
1	C	3384	LYS	CG-CD-CE	7.01	132.93	111.90
1	A	3384	LYS	CG-CD-CE	7.00	132.90	111.90
1	B	3384	LYS	CG-CD-CE	7.00	132.90	111.90
1	B	3734	HIS	ND1-CG-CD2	-6.51	96.89	106.00
1	D	3734	HIS	ND1-CG-CD2	-6.49	96.92	106.00
1	C	3734	HIS	ND1-CG-CD2	-6.48	96.93	106.00
1	A	3734	HIS	ND1-CG-CD2	-6.48	96.93	106.00
1	D	1994	ARG	NE-CZ-NH1	-6.43	117.08	120.30
1	B	2237	CYS	CA-CB-SG	6.39	125.51	114.00
1	C	2237	CYS	CA-CB-SG	6.39	125.51	114.00
1	A	2237	CYS	CA-CB-SG	6.39	125.50	114.00
1	D	1421	ARG	CB-CG-CD	-6.38	95.00	111.60
1	D	2237	CYS	CA-CB-SG	6.38	125.48	114.00
1	A	1421	ARG	CB-CG-CD	-6.37	95.04	111.60
1	B	1421	ARG	CB-CG-CD	-6.37	95.05	111.60
1	A	1994	ARG	NE-CZ-NH1	-6.36	117.12	120.30
1	C	1421	ARG	CB-CG-CD	-6.36	95.07	111.60
1	C	1994	ARG	NE-CZ-NH1	-6.36	117.12	120.30
1	B	1994	ARG	NE-CZ-NH1	-6.35	117.13	120.30
2	E	73	LYS	CD-CE-NZ	6.13	125.80	111.70
1	D	1759	ARG	CA-CB-CG	6.13	126.89	113.40
2	F	73	LYS	CD-CE-NZ	6.12	125.78	111.70
1	A	1759	ARG	CA-CB-CG	6.11	126.85	113.40
2	G	73	LYS	CD-CE-NZ	6.11	125.76	111.70
1	B	1759	ARG	CA-CB-CG	6.11	126.85	113.40
2	H	73	LYS	CD-CE-NZ	6.11	125.75	111.70
1	C	1759	ARG	CA-CB-CG	6.11	126.83	113.40
2	G	80	TYR	OH-CZ-CE2	-5.99	103.94	120.10
2	E	80	TYR	OH-CZ-CE2	-5.98	103.94	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	H	80	TYR	OH-CZ-CE2	-5.98	103.96	120.10
2	F	80	TYR	OH-CZ-CE2	-5.98	103.96	120.10
1	C	3225	ARG	CB-CG-CD	5.96	127.10	111.60
1	A	3225	ARG	CB-CG-CD	5.95	127.06	111.60
1	B	3225	ARG	CB-CG-CD	5.94	127.05	111.60
1	D	3225	ARG	CB-CG-CD	5.93	127.03	111.60
1	B	2874	MET	CB-CG-SD	5.90	130.09	112.40
1	A	2874	MET	CB-CG-SD	5.88	130.04	112.40
1	D	2874	MET	CB-CG-SD	5.87	130.01	112.40
1	C	2874	MET	CB-CG-SD	5.87	130.01	112.40
1	A	3393	LEU	CB-CG-CD2	5.78	120.83	111.00
1	B	3393	LEU	CB-CG-CD2	5.78	120.83	111.00
1	D	3393	LEU	CB-CG-CD2	5.78	120.83	111.00
1	C	3393	LEU	CB-CG-CD2	5.78	120.83	111.00
1	A	952	LYS	CG-CD-CE	5.75	129.14	111.90
1	B	952	LYS	CG-CD-CE	5.74	129.13	111.90
1	D	952	LYS	CG-CD-CE	5.74	129.12	111.90
1	C	952	LYS	CG-CD-CE	5.74	129.12	111.90
1	D	1421	ARG	CA-CB-CG	-5.44	101.42	113.40
1	A	1421	ARG	CA-CB-CG	-5.43	101.46	113.40
1	C	1421	ARG	CA-CB-CG	-5.43	101.46	113.40
1	B	1421	ARG	CA-CB-CG	-5.40	101.51	113.40
1	D	3225	ARG	CA-CB-CG	5.36	125.19	113.40
1	B	3225	ARG	CA-CB-CG	5.35	125.17	113.40
1	A	3225	ARG	CA-CB-CG	5.34	125.14	113.40
1	C	3225	ARG	CA-CB-CG	5.33	125.12	113.40
1	C	2479	LEU	CB-CG-CD2	5.31	120.03	111.00
1	C	935	LEU	CB-CG-CD2	-5.30	101.98	111.00
1	A	2479	LEU	CB-CG-CD2	5.30	120.00	111.00
1	B	3453	ARG	CB-CG-CD	5.28	125.34	111.60
1	D	3453	ARG	CB-CG-CD	5.28	125.34	111.60
1	B	935	LEU	CB-CG-CD2	-5.28	102.03	111.00
1	A	935	LEU	CB-CG-CD2	-5.28	102.03	111.00
1	A	3453	ARG	CB-CG-CD	5.28	125.32	111.60
1	C	3453	ARG	CB-CG-CD	5.28	125.32	111.60
1	B	2479	LEU	CB-CG-CD2	5.28	119.97	111.00
1	D	2479	LEU	CB-CG-CD2	5.28	119.97	111.00
1	A	1759	ARG	CB-CG-CD	5.27	125.31	111.60
1	C	1759	ARG	CB-CG-CD	5.27	125.31	111.60
1	D	1759	ARG	CB-CG-CD	5.27	125.30	111.60
1	D	935	LEU	CB-CG-CD2	-5.27	102.04	111.00
1	B	1759	ARG	CB-CG-CD	5.27	125.29	111.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	483	MET	CB-CG-SD	5.21	128.02	112.40
1	B	483	MET	CB-CG-SD	5.21	128.02	112.40
1	D	483	MET	CB-CG-SD	5.21	128.02	112.40
1	C	483	MET	CB-CG-SD	5.21	128.02	112.40
1	B	3467	MET	CA-CB-CG	5.20	122.15	113.30
1	A	2946	LEU	CB-CG-CD2	5.20	119.84	111.00
1	B	2946	LEU	CB-CG-CD2	5.20	119.84	111.00
1	D	2946	LEU	CB-CG-CD2	5.20	119.84	111.00
1	C	2946	LEU	CB-CG-CD2	5.20	119.84	111.00
1	D	1930	LYS	CD-CE-NZ	5.20	123.65	111.70
1	C	1930	LYS	CD-CE-NZ	5.18	123.62	111.70
1	A	1930	LYS	CD-CE-NZ	5.18	123.62	111.70
1	A	3467	MET	CA-CB-CG	5.18	122.11	113.30
1	B	3393	LEU	CD1-CG-CD2	-5.17	94.98	110.50
1	D	3393	LEU	CD1-CG-CD2	-5.17	94.98	110.50
1	C	3393	LEU	CD1-CG-CD2	-5.17	94.98	110.50
1	B	1930	LYS	CD-CE-NZ	5.17	123.59	111.70
1	D	3467	MET	CA-CB-CG	5.17	122.09	113.30
1	A	3393	LEU	CD1-CG-CD2	-5.16	95.01	110.50
1	C	3467	MET	CA-CB-CG	5.16	122.06	113.30
1	C	3933	PHE	CB-CG-CD1	5.08	124.36	120.80
1	D	3321	ARG	C-N-CA	5.05	134.33	121.70
1	A	3321	ARG	C-N-CA	5.04	134.30	121.70
1	B	3321	ARG	C-N-CA	5.04	134.30	121.70
1	C	3321	ARG	C-N-CA	5.04	134.30	121.70
1	A	3933	PHE	CB-CG-CD1	5.03	124.32	120.80

All (4) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	A	3321	ARG	CA
1	B	3321	ARG	CA
1	D	3321	ARG	CA
1	C	3321	ARG	CA

All (48) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1421	ARG	Sidechain
1	A	156	GLN	Sidechain
1	A	1758	ARG	Sidechain
1	A	2173	GLN	Sidechain

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
1	A	3320	LEU	Peptide
1	A	3321	ARG	Sidechain
1	A	3453	ARG	Sidechain
1	A	3734	HIS	Sidechain
1	A	3948	LYS	Peptide
1	A	3949	ARG	Sidechain,Mainchain
1	B	1421	ARG	Sidechain
1	B	156	GLN	Sidechain
1	B	1758	ARG	Sidechain
1	B	2173	GLN	Sidechain
1	B	3320	LEU	Peptide
1	B	3321	ARG	Sidechain
1	B	3453	ARG	Sidechain
1	B	3734	HIS	Sidechain
1	B	3948	LYS	Peptide
1	B	3949	ARG	Sidechain,Mainchain
1	C	1421	ARG	Sidechain
1	C	156	GLN	Sidechain
1	C	1758	ARG	Sidechain
1	C	2173	GLN	Sidechain
1	C	3320	LEU	Peptide
1	C	3321	ARG	Sidechain
1	C	3453	ARG	Sidechain
1	C	3734	HIS	Sidechain
1	C	3948	LYS	Peptide
1	C	3949	ARG	Sidechain,Mainchain
1	D	1421	ARG	Sidechain
1	D	156	GLN	Sidechain
1	D	1758	ARG	Sidechain
1	D	2173	GLN	Sidechain
1	D	3320	LEU	Peptide
1	D	3321	ARG	Sidechain
1	D	3453	ARG	Sidechain
1	D	3734	HIS	Sidechain
1	D	3948	LYS	Peptide
1	D	3949	ARG	Sidechain,Mainchain
2	E	80	TYR	Sidechain
2	F	80	TYR	Sidechain
2	G	80	TYR	Sidechain
2	H	80	TYR	Sidechain

## 5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	35150	0	34794	801	0
1	B	35150	0	34794	786	0
1	C	35150	0	34794	789	0
1	D	35150	0	34794	799	0
2	E	831	0	829	24	0
2	F	831	0	829	25	0
2	G	831	0	829	28	0
2	H	831	0	829	25	0
3	A	31	0	12	1	0
3	B	31	0	12	1	0
3	C	31	0	12	1	0
3	D	31	0	12	1	0
4	A	1	0	0	0	0
4	B	1	0	0	0	0
4	C	1	0	0	0	0
4	D	1	0	0	0	0
5	A	1	0	0	0	0
5	B	1	0	0	0	0
5	C	1	0	0	0	0
5	D	1	0	0	0	0
6	A	14	0	0	0	0
6	B	14	0	0	0	0
6	C	14	0	0	0	0
6	D	14	0	0	0	0
All	All	144112	0	142540	3231	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 11.

All (3231) 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:B:2237:CYS:SG	1:B:2237:CYS:CB	2.11	1.39
1:A:2237:CYS:CB	1:A:2237:CYS:SG	2.11	1.38
1:D:2237:CYS:CB	1:D:2237:CYS:SG	2.11	1.37

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2237:CYS:SG	1:C:2237:CYS:CB	2.11	1.37
1:B:2452:ARG:NH1	1:C:144:GLU:OE1	1.88	1.06
1:D:144:GLU:OE1	1:C:2452:ARG:NH1	1.89	1.06
1:A:2452:ARG:NH1	1:B:144:GLU:OE1	1.89	1.05
1:A:144:GLU:OE1	1:D:2452:ARG:NH1	1.90	1.02
1:A:3248:ARG:NH1	1:A:3252:ASP:OD1	1.94	1.00
1:D:3248:ARG:NH1	1:D:3252:ASP:OD1	1.94	0.99
1:C:3248:ARG:NH1	1:C:3252:ASP:OD1	1.94	0.99
1:B:3248:ARG:NH1	1:B:3252:ASP:OD1	1.94	0.98
1:A:919:ASN:O	1:A:923:GLN:NE2	1.97	0.97
1:D:919:ASN:O	1:D:923:GLN:NE2	1.97	0.97
1:C:919:ASN:O	1:C:923:GLN:NE2	1.97	0.97
1:B:919:ASN:O	1:B:923:GLN:NE2	1.97	0.97
1:B:2605:ASP:HA	1:B:2608:MET:HE2	1.47	0.97
1:A:2605:ASP:HA	1:A:2608:MET:HE2	1.48	0.95
1:A:3321:ARG:O	1:A:3324:VAL:HG22	1.66	0.95
1:B:3321:ARG:O	1:B:3324:VAL:HG22	1.66	0.95
1:C:2605:ASP:HA	1:C:2608:MET:HE2	1.48	0.94
1:D:3321:ARG:O	1:D:3324:VAL:HG22	1.66	0.94
1:D:2605:ASP:HA	1:D:2608:MET:HE2	1.49	0.94
1:A:3383:ALA:C	1:A:3384:LYS:HD3	1.88	0.93
1:D:3383:ALA:C	1:D:3384:LYS:HD3	1.88	0.93
1:C:3321:ARG:O	1:C:3324:VAL:HG22	1.66	0.93
1:C:897:ARG:NH2	1:C:917:GLU:OE2	2.02	0.93
1:B:897:ARG:NH2	1:B:917:GLU:OE2	2.02	0.93
1:B:3383:ALA:C	1:B:3384:LYS:HD3	1.88	0.93
1:A:897:ARG:NH2	1:A:917:GLU:OE2	2.02	0.92
1:B:54:ASN:O	1:B:56:GLN:N	2.03	0.92
1:C:3383:ALA:C	1:C:3384:LYS:HD3	1.88	0.92
1:A:3521:GLY:HA2	1:A:3524:MET:CE	2.00	0.92
1:D:54:ASN:O	1:D:56:GLN:N	2.03	0.92
1:C:54:ASN:O	1:C:56:GLN:N	2.03	0.92
1:D:897:ARG:NH2	1:D:917:GLU:OE2	2.02	0.91
1:B:3521:GLY:HA2	1:B:3524:MET:CE	2.00	0.91
1:A:54:ASN:O	1:A:56:GLN:N	2.03	0.91
1:A:2229:VAL:HG11	1:A:2267:MET:HE1	1.53	0.91
1:D:3521:GLY:HA2	1:D:3524:MET:CE	2.00	0.91
1:D:978:THR:OG1	1:D:981:GLN:OE1	1.88	0.91
1:C:3521:GLY:HA2	1:C:3524:MET:CE	2.00	0.91
1:B:978:THR:OG1	1:B:981:GLN:OE1	1.88	0.90
1:C:978:THR:OG1	1:C:981:GLN:OE1	1.88	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3356:SER:HG	1:B:3357:HIS:HD1	1.18	0.89
1:A:978:THR:OG1	1:A:981:GLN:OE1	1.88	0.88
1:D:3356:SER:HG	1:D:3357:HIS:HD1	1.18	0.88
1:A:4899:ASP:OD1	1:D:4892:ARG:NH1	2.07	0.88
1:B:3521:GLY:HA2	1:B:3524:MET:HE3	1.55	0.88
1:C:2929:PHE:O	1:C:2933:ASN:ND2	2.07	0.88
1:B:2229:VAL:HG11	1:B:2267:MET:HE1	1.56	0.87
1:D:1454:THR:OG1	1:D:1456:ASP:OD1	1.93	0.87
1:D:2929:PHE:O	1:D:2933:ASN:ND2	2.07	0.87
1:D:1999:ARG:O	1:D:3638:MET:CE	2.23	0.87
1:A:1454:THR:OG1	1:A:1456:ASP:OD1	1.93	0.86
1:B:1999:ARG:O	1:B:3638:MET:CE	2.23	0.86
1:C:1999:ARG:O	1:C:3638:MET:CE	2.23	0.86
1:C:2928:LYS:HG3	1:C:2932:MET:SD	2.15	0.86
1:B:2928:LYS:HG3	1:B:2932:MET:SD	2.16	0.86
1:B:2929:PHE:O	1:B:2933:ASN:ND2	2.07	0.86
1:A:2928:LYS:HG3	1:A:2932:MET:SD	2.16	0.86
1:D:2928:LYS:HG3	1:D:2932:MET:SD	2.16	0.86
1:A:1999:ARG:O	1:A:3638:MET:CE	2.23	0.86
1:A:3356:SER:HG	1:A:3357:HIS:HD1	1.17	0.86
1:D:2761:TYR:HB3	1:D:2765:LYS:NZ	1.91	0.86
1:A:2929:PHE:O	1:A:2933:ASN:ND2	2.07	0.86
1:D:3933:PHE:CE2	1:D:3951:PHE:CZ	2.64	0.85
1:B:3933:PHE:CE2	1:B:3951:PHE:CZ	2.64	0.85
1:B:1454:THR:OG1	1:B:1456:ASP:OD1	1.93	0.85
1:A:3933:PHE:CE2	1:A:3951:PHE:CZ	2.64	0.85
1:B:2761:TYR:HB3	1:B:2765:LYS:NZ	1.91	0.85
1:C:2761:TYR:HB3	1:C:2765:LYS:NZ	1.91	0.85
1:C:3933:PHE:CE2	1:C:3951:PHE:CZ	2.64	0.85
1:A:2761:TYR:HB3	1:A:2765:LYS:NZ	1.91	0.85
1:B:1156:THR:OG1	1:B:1157:GLU:OE1	1.95	0.85
1:D:1156:THR:OG1	1:D:1157:GLU:OE1	1.95	0.84
1:C:2229:VAL:HG11	1:C:2267:MET:HE1	1.59	0.84
1:A:3762:ARG:O	1:A:3766:GLN:NE2	2.11	0.84
1:A:3933:PHE:CE2	1:A:3951:PHE:CE2	2.66	0.84
1:A:2927:LEU:O	1:A:2931:GLN:NE2	2.11	0.84
1:C:1454:THR:OG1	1:C:1456:ASP:OD1	1.93	0.84
1:D:3933:PHE:CE2	1:D:3951:PHE:CE2	2.66	0.84
1:B:3762:ARG:O	1:B:3766:GLN:NE2	2.11	0.84
1:D:4899:ASP:OD1	1:C:4892:ARG:NH1	2.11	0.84
1:B:2927:LEU:O	1:B:2931:GLN:NE2	2.11	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1156:THR:OG1	1:C:1157:GLU:OE1	1.95	0.83
1:D:3762:ARG:O	1:D:3766:GLN:NE2	2.11	0.83
1:C:3933:PHE:CE2	1:C:3951:PHE:CE2	2.66	0.83
1:B:3933:PHE:CE2	1:B:3951:PHE:CE2	2.66	0.83
1:C:2927:LEU:O	1:C:2931:GLN:NE2	2.11	0.83
1:D:2927:LEU:O	1:D:2931:GLN:NE2	2.11	0.83
1:A:495:ASN:OD1	1:A:553:ARG:NH1	2.12	0.83
1:A:1156:THR:OG1	1:A:1157:GLU:OE1	1.95	0.83
1:A:2373:GLY:O	1:B:130:LYS:NZ	2.11	0.83
1:D:1999:ARG:O	1:D:3638:MET:HE1	1.78	0.83
1:C:3762:ARG:O	1:C:3766:GLN:NE2	2.11	0.83
1:B:3940:LYS:O	1:B:4002:LYS:NZ	2.12	0.83
1:B:4892:ARG:NH1	1:C:4899:ASP:OD1	2.11	0.83
1:B:2233:CYS:HB3	1:B:2237:CYS:HB2	1.61	0.82
1:C:495:ASN:OD1	1:C:553:ARG:NH1	2.12	0.82
1:B:495:ASN:OD1	1:B:553:ARG:NH1	2.12	0.82
1:D:3521:GLY:HA2	1:D:3524:MET:HE2	1.61	0.82
1:D:495:ASN:OD1	1:D:553:ARG:NH1	2.12	0.82
1:D:2233:CYS:HB3	1:D:2237:CYS:HB2	1.61	0.82
1:A:3933:PHE:HE2	1:A:3951:PHE:CE2	1.98	0.81
1:B:236:ALA:O	1:B:237:ASP:OD1	1.98	0.81
1:C:236:ALA:O	1:C:237:ASP:OD1	1.98	0.81
1:C:1999:ARG:O	1:C:3638:MET:HE1	1.78	0.81
1:A:2233:CYS:HB3	1:A:2237:CYS:HB2	1.61	0.81
1:C:3521:GLY:HA2	1:C:3524:MET:HE2	1.61	0.81
1:C:4006:ASP:OD2	1:C:4008:SER:OG	1.98	0.81
1:A:236:ALA:O	1:A:237:ASP:OD1	1.98	0.81
1:A:1999:ARG:O	1:A:3638:MET:HE1	1.80	0.81
1:B:3933:PHE:HE2	1:B:3951:PHE:CE2	1.99	0.81
1:D:236:ALA:O	1:D:237:ASP:OD1	1.98	0.81
1:D:3933:PHE:HE2	1:D:3951:PHE:CE2	1.99	0.81
1:A:3521:GLY:HA2	1:A:3524:MET:HE3	1.61	0.81
1:A:4006:ASP:OD2	1:A:4008:SER:OG	1.98	0.81
1:C:2233:CYS:HB3	1:C:2237:CYS:HB2	1.61	0.81
1:B:4006:ASP:OD2	1:B:4008:SER:OG	1.98	0.81
1:D:2587:TYR:HD2	1:D:2625:ARG:HH12	1.26	0.80
1:C:3940:LYS:O	1:C:4002:LYS:NZ	2.11	0.80
1:A:2587:TYR:HD2	1:A:2625:ARG:HH12	1.26	0.80
1:B:1465:ASP:OD2	1:B:1467:SER:OG	2.00	0.80
1:A:4892:ARG:NH1	1:B:4899:ASP:OD1	2.15	0.80
1:C:3933:PHE:HE2	1:C:3951:PHE:CE2	1.98	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1999:ARG:O	1:B:3638:MET:HE1	1.81	0.80
1:A:3300:ALA:HB3	1:A:3301:PRO:HD3	1.65	0.80
1:D:3300:ALA:HB3	1:D:3301:PRO:HD3	1.65	0.79
1:B:2584[B]:HIS:CD2	1:B:2625:ARG:HD2	2.18	0.79
1:C:2587:TYR:HD2	1:C:2625:ARG:HH12	1.26	0.79
1:D:2760:GLU:OE2	1:D:2802:LYS:NZ	2.16	0.79
1:D:4006:ASP:OD2	1:D:4008:SER:OG	1.98	0.79
1:A:2584[B]:HIS:CD2	1:A:2625:ARG:HD2	2.18	0.79
1:A:2760:GLU:OE2	1:A:2802:LYS:NZ	2.16	0.79
1:A:3940:LYS:O	1:A:4002:LYS:NZ	2.12	0.79
1:D:1465:ASP:OD2	1:D:1467:SER:OG	2.00	0.79
1:D:980:ALA:O	1:D:984:LEU:HD12	1.83	0.79
1:A:1465:ASP:OD2	1:A:1467:SER:OG	2.00	0.78
1:D:2584[B]:HIS:CD2	1:D:2625:ARG:HD2	2.18	0.78
1:A:2233:CYS:HB3	1:A:2237:CYS:CB	2.13	0.78
1:B:2587:TYR:HD2	1:B:2625:ARG:HH12	1.26	0.78
1:D:2233:CYS:HB3	1:D:2237:CYS:CB	2.13	0.78
1:C:2233:CYS:HB3	1:C:2237:CYS:CB	2.13	0.78
1:C:3300:ALA:HB3	1:C:3301:PRO:HD3	1.65	0.78
1:B:3300:ALA:HB3	1:B:3301:PRO:HD3	1.65	0.78
1:C:980:ALA:O	1:C:984:LEU:HD12	1.83	0.78
1:C:2584[B]:HIS:CD2	1:C:2625:ARG:HD2	2.18	0.78
1:D:130:LYS:NZ	1:C:2373:GLY:O	2.16	0.78
1:A:1143:TRP:CZ3	1:A:1149:VAL:HG21	2.19	0.78
1:D:1143:TRP:CZ3	1:D:1149:VAL:HG21	2.19	0.78
1:A:130:LYS:NZ	1:D:2373:GLY:O	2.17	0.77
1:B:2373:GLY:O	1:C:130:LYS:NZ	2.16	0.77
1:D:2229:VAL:HG11	1:D:2267:MET:HE3	1.67	0.77
1:C:2090:LYS:NZ	1:C:2092:GLN:OE1	2.15	0.77
1:A:980:ALA:O	1:A:984:LEU:HD12	1.83	0.77
1:C:1465:ASP:OD2	1:C:1467:SER:OG	2.00	0.77
1:B:1143:TRP:CZ3	1:B:1149:VAL:HG21	2.19	0.77
1:B:980:ALA:O	1:B:984:LEU:HD12	1.83	0.77
1:C:1143:TRP:CZ3	1:C:1149:VAL:HG21	2.19	0.77
1:B:2090:LYS:NZ	1:B:2092:GLN:OE1	2.15	0.77
1:A:3521:GLY:HA2	1:A:3524:MET:HE2	1.67	0.77
1:B:2233:CYS:HB3	1:B:2237:CYS:CB	2.13	0.77
1:D:3940:LYS:O	1:D:4002:LYS:NZ	2.12	0.77
2:G:3:GLN:CG	2:G:75:THR:HB	2.16	0.76
1:A:2233:CYS:O	1:A:2234:ARG:C	2.24	0.76
2:H:3:GLN:CG	2:H:75:THR:HB	2.16	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1868:PRO:O	1:B:1872:THR:HG23	1.86	0.76
1:A:1868:PRO:O	1:A:1872:THR:HG23	1.86	0.76
2:E:3:GLN:CG	2:E:75:THR:HB	2.16	0.76
1:B:1931:LEU:HD13	1:B:1935:VAL:HG11	1.68	0.76
1:D:2212:VAL:HG21	1:D:2256:TYR:OH	1.86	0.76
1:A:2212:VAL:HG21	1:A:2256:TYR:OH	1.86	0.76
1:C:1868:PRO:O	1:C:1872:THR:HG23	1.86	0.76
1:C:3521:GLY:HA2	1:C:3524:MET:HE3	1.68	0.76
1:A:1263:THR:OG1	1:A:1265:ASP:OD1	2.04	0.76
1:C:2760:GLU:OE2	1:C:2802:LYS:NZ	2.16	0.76
1:B:2212:VAL:HG21	1:B:2256:TYR:OH	1.86	0.76
1:D:1263:THR:OG1	1:D:1265:ASP:OD1	2.04	0.76
1:A:3860:ASN:ND2	1:A:3862:ASP:O	2.19	0.75
2:F:3:GLN:CG	2:F:75:THR:HB	2.16	0.75
1:D:3860:ASN:ND2	1:D:3862:ASP:O	2.19	0.75
1:D:3500:GLY:O	1:D:3504:SER:OG	2.05	0.75
1:D:3521:GLY:HA2	1:D:3524:MET:HE3	1.68	0.75
1:A:1931:LEU:HD13	1:A:1935:VAL:HG11	1.68	0.75
1:A:1441:ALA:N	1:A:1513:ASP:OD1	2.20	0.75
1:A:2736:ASP:O	1:A:2738:ARG:NH1	2.20	0.75
1:B:3860:ASN:ND2	1:B:3862:ASP:O	2.19	0.75
2:F:3:GLN:HG2	2:F:75:THR:HB	1.69	0.75
1:B:2229:VAL:HG11	1:B:2267:MET:CE	2.17	0.75
1:D:1441:ALA:N	1:D:1513:ASP:OD1	2.20	0.75
1:D:4902:GLU:O	1:D:4913:ARG:NH1	2.20	0.75
1:A:2229:VAL:HG11	1:A:2267:MET:CE	2.17	0.74
1:A:4063:ASP:OD1	1:A:4064:MET:N	2.20	0.74
1:D:2229:VAL:HG11	1:D:2267:MET:CE	2.17	0.74
1:C:1931:LEU:HD13	1:C:1935:VAL:HG11	1.67	0.74
1:C:2088:GLU:OE1	1:C:2088:GLU:N	2.20	0.74
1:C:3860:ASN:ND2	1:C:3862:ASP:O	2.19	0.74
2:E:3:GLN:HG2	2:E:75:THR:HB	1.69	0.74
2:H:3:GLN:HG2	2:H:75:THR:HB	1.69	0.74
2:G:3:GLN:HG2	2:G:75:THR:HB	1.69	0.74
1:C:4063:ASP:OD1	1:C:4064:MET:N	2.20	0.74
1:B:4885:PHE:O	1:B:4889:VAL:HG22	1.87	0.74
1:C:1263:THR:OG1	1:C:1265:ASP:OD1	2.04	0.74
1:A:4885:PHE:O	1:A:4889:VAL:HG22	1.87	0.74
1:C:2212:VAL:HG21	1:C:2256:TYR:OH	1.86	0.74
1:C:4902:GLU:O	1:C:4913:ARG:NH1	2.20	0.74
1:D:1868:PRO:O	1:D:1872:THR:HG23	1.86	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3320:LEU:O	1:D:3321:ARG:C	2.26	0.74
1:D:4063:ASP:OD1	1:D:4064:MET:N	2.20	0.74
1:C:3320:LEU:O	1:C:3321:ARG:C	2.26	0.74
1:B:4902:GLU:O	1:B:4913:ARG:NH1	2.20	0.74
1:D:3651:ASN:O	1:D:3655:GLU:OE1	2.06	0.74
1:C:2229:VAL:HG11	1:C:2267:MET:CE	2.17	0.74
1:A:2088:GLU:OE1	1:A:2088:GLU:N	2.20	0.74
1:C:3651:ASN:O	1:C:3655:GLU:OE1	2.06	0.74
1:B:1263:THR:OG1	1:B:1265:ASP:OD1	2.03	0.74
1:A:4902:GLU:O	1:A:4913:ARG:NH1	2.20	0.74
1:B:2088:GLU:N	1:B:2088:GLU:OE1	2.20	0.73
1:C:4711:PHE:HB3	1:C:4712:PRO:HD3	1.70	0.73
1:C:4885:PHE:O	1:C:4889:VAL:HG22	1.87	0.73
1:B:2736:ASP:O	1:B:2738:ARG:NH1	2.20	0.73
1:B:2760:GLU:OE2	1:B:2802:LYS:NZ	2.16	0.73
1:B:4063:ASP:OD1	1:B:4064:MET:N	2.20	0.73
1:D:4711:PHE:HB3	1:D:4712:PRO:HD3	1.70	0.73
1:D:4885:PHE:O	1:D:4889:VAL:HG22	1.87	0.73
1:A:3651:ASN:O	1:A:3655:GLU:OE1	2.06	0.73
1:B:1441:ALA:N	1:B:1513:ASP:OD1	2.20	0.73
1:B:2233:CYS:O	1:B:2234:ARG:C	2.24	0.73
1:D:2088:GLU:OE1	1:D:2088:GLU:N	2.21	0.73
1:C:981:GLN:HA	1:C:984:LEU:HD13	1.71	0.73
1:C:1441:ALA:N	1:C:1513:ASP:OD1	2.20	0.73
1:A:1018:ASN:HB3	1:A:1021:LEU:HD23	1.71	0.73
1:A:3320:LEU:O	1:A:3321:ARG:C	2.26	0.73
1:B:3321:ARG:NH1	1:B:3321:ARG:HB2	2.03	0.73
1:B:3500:GLY:O	1:B:3504:SER:OG	2.05	0.73
1:D:2722:LYS:HG3	1:D:2724:GLU:H	1.54	0.73
1:D:2736:ASP:O	1:D:2738:ARG:NH1	2.20	0.73
1:A:2722:LYS:HG3	1:A:2724:GLU:H	1.54	0.73
1:C:2736:ASP:O	1:C:2738:ARG:NH1	2.20	0.73
1:B:1018:ASN:HB3	1:B:1021:LEU:HD23	1.71	0.73
1:D:1931:LEU:HD13	1:D:1935:VAL:HG11	1.68	0.73
1:D:2233:CYS:O	1:D:2234:ARG:C	2.24	0.73
1:D:981:GLN:HA	1:D:984:LEU:HD13	1.71	0.73
1:C:3321:ARG:NH1	1:C:3321:ARG:HB2	2.03	0.73
1:A:981:GLN:HA	1:A:984:LEU:HD13	1.71	0.73
1:A:3500:GLY:O	1:A:3504:SER:OG	2.05	0.73
1:C:3500:GLY:O	1:C:3504:SER:OG	2.05	0.73
1:A:3321:ARG:NH1	1:A:3321:ARG:HB2	2.03	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4711:PHE:HB3	1:A:4712:PRO:HD3	1.70	0.73
2:H:3:GLN:HE21	2:H:75:THR:CB	2.02	0.72
1:C:2722:LYS:HG3	1:C:2724:GLU:H	1.54	0.72
1:B:3651:ASN:O	1:B:3655:GLU:OE1	2.06	0.72
1:D:2514:ASN:ND2	1:D:2516:ASP:OD1	2.22	0.72
1:C:1303:CYS:O	1:C:1304:THR:OG1	2.07	0.72
1:C:2233:CYS:O	1:C:2234:ARG:C	2.24	0.72
1:B:2514:ASN:ND2	1:B:2516:ASP:OD1	2.22	0.72
1:D:3321:ARG:HB2	1:D:3321:ARG:NH1	2.03	0.72
1:B:981:GLN:HA	1:B:984:LEU:HD13	1.71	0.72
1:B:3320:LEU:O	1:B:3321:ARG:C	2.26	0.72
1:B:1303:CYS:O	1:B:1304:THR:OG1	2.07	0.72
1:A:2090:LYS:NZ	1:A:2092:GLN:OE1	2.14	0.72
1:B:4711:PHE:HB3	1:B:4712:PRO:HD3	1.70	0.72
1:C:2355:ARG:NH2	1:C:2449:GLU:OE2	2.23	0.72
1:B:2355:ARG:NH2	1:B:2449:GLU:OE2	2.23	0.72
1:D:1786:LEU:HD12	1:D:1787:PRO:HD2	1.72	0.72
1:C:2514:ASN:ND2	1:C:2516:ASP:OD1	2.22	0.72
1:D:2355:ARG:NH2	1:D:2449:GLU:OE2	2.23	0.71
1:D:1018:ASN:HB3	1:D:1021:LEU:HD23	1.71	0.71
1:C:1171:SER:HG	1:C:1175:SER:HG	1.30	0.71
1:A:2514:ASN:ND2	1:A:2516:ASP:OD1	2.22	0.71
1:B:1786:LEU:HD12	1:B:1787:PRO:HD2	1.72	0.71
1:C:1786:LEU:HD12	1:C:1787:PRO:HD2	1.72	0.71
1:A:1786:LEU:HD12	1:A:1787:PRO:HD2	1.72	0.71
2:G:3:GLN:HE21	2:G:75:THR:CB	2.02	0.71
2:F:3:GLN:HE21	2:F:75:THR:CB	2.02	0.71
1:C:1018:ASN:HB3	1:C:1021:LEU:HD23	1.71	0.71
1:C:924:MET:O	1:C:928:THR:HG23	1.91	0.71
1:B:3521:GLY:HA2	1:B:3524:MET:HE2	1.73	0.71
1:A:2355:ARG:NH2	1:A:2449:GLU:OE2	2.23	0.71
2:E:3:GLN:HE21	2:E:75:THR:CB	2.02	0.71
1:B:2722:LYS:HG3	1:B:2724:GLU:H	1.54	0.71
1:A:924:MET:O	1:A:928:THR:HG23	1.90	0.70
1:A:2437:ALA:O	1:A:2508:ARG:NH2	2.24	0.70
1:A:4710:SER:O	1:A:4713:SER:OG	2.09	0.70
1:B:3899:PHE:CZ	1:B:3903:LEU:HD21	2.27	0.70
1:D:924:MET:O	1:D:928:THR:HG23	1.91	0.70
1:B:3834:ALA:O	1:B:3838:THR:HG23	1.92	0.70
1:D:2285:GLU:OE2	1:D:3853:ALA:HB1	1.92	0.70
1:D:3899:PHE:CZ	1:D:3903:LEU:HD21	2.27	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3324:VAL:HG11	1:C:3361:THR:HG22	1.72	0.70
1:C:3899:PHE:CZ	1:C:3903:LEU:HD21	2.27	0.70
1:B:961:MET:HE1	1:B:967:PRO:HD3	1.72	0.70
1:A:3324:VAL:HG11	1:A:3361:THR:HG22	1.72	0.70
1:B:2285:GLU:OE2	1:B:3853:ALA:HB1	1.92	0.70
1:C:321:GLU:OE1	1:C:321:GLU:N	2.25	0.70
1:C:4710:SER:O	1:C:4713:SER:OG	2.09	0.70
1:B:581:ASN:OD1	1:B:582:HIS:N	2.25	0.70
1:C:581:ASN:OD1	1:C:582:HIS:N	2.25	0.70
1:B:3324:VAL:HG11	1:B:3361:THR:HG22	1.72	0.69
1:D:1236:THR:OG1	1:D:1608:MET:SD	2.48	0.69
1:D:2761:TYR:HB3	1:D:2765:LYS:HZ3	1.57	0.69
1:C:2437:ALA:O	1:C:2508:ARG:NH2	2.24	0.69
1:C:2761:TYR:HB3	1:C:2765:LYS:HZ3	1.57	0.69
1:A:228:ASP:OD1	1:A:229:GLU:N	2.25	0.69
1:A:728:ARG:NH2	1:A:1489:CYS:SG	2.65	0.69
1:B:924:MET:O	1:B:928:THR:HG23	1.90	0.69
1:A:581:ASN:OD1	1:A:582:HIS:N	2.25	0.69
1:A:3673:MET:CE	1:A:3725:TYR:CE1	2.76	0.69
1:B:2437:ALA:O	1:B:2508:ARG:NH2	2.24	0.69
1:D:581:ASN:OD1	1:D:582:HIS:N	2.25	0.69
1:D:728:ARG:NH2	1:D:1489:CYS:SG	2.65	0.69
1:D:3324:VAL:HG11	1:D:3361:THR:HG22	1.72	0.69
1:B:728:ARG:NH2	1:B:1489:CYS:SG	2.65	0.69
1:D:228:ASP:OD1	1:D:229:GLU:N	2.25	0.69
1:D:2090:LYS:NZ	1:D:2092:GLN:OE1	2.15	0.69
1:C:728:ARG:NH2	1:C:1489:CYS:SG	2.65	0.69
1:A:1303:CYS:O	1:A:1304:THR:OG1	2.07	0.69
1:A:3834:ALA:O	1:A:3838:THR:HG23	1.92	0.69
1:B:3673:MET:CE	1:B:3725:TYR:CE1	2.76	0.69
1:D:321:GLU:OE1	1:D:321:GLU:N	2.25	0.69
1:D:1422:ASP:OD2	1:D:1568:LYS:NZ	2.20	0.69
1:A:1236:THR:OG1	1:A:1608:MET:SD	2.48	0.69
1:A:2285:GLU:OE2	1:A:3853:ALA:HB1	1.92	0.69
1:A:3899:PHE:CZ	1:A:3903:LEU:HD21	2.27	0.69
1:B:228:ASP:OD1	1:B:229:GLU:N	2.25	0.69
1:D:2437:ALA:O	1:D:2508:ARG:NH2	2.24	0.69
1:C:1561:VAL:HG12	1:C:1562:ILE:HG23	1.75	0.69
1:C:2285:GLU:OE2	1:C:3853:ALA:HB1	1.92	0.69
1:C:3834:ALA:O	1:C:3838:THR:HG23	1.92	0.69
1:C:3635:CYS:O	1:C:3638:MET:HE3	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4710:SER:O	1:D:4713:SER:OG	2.09	0.69
1:A:4966:ASP:OD1	1:A:4967:TYR:N	2.27	0.68
1:B:321:GLU:OE1	1:B:321:GLU:N	2.25	0.68
1:D:2584[B]:HIS:CD2	1:D:2625:ARG:CD	2.76	0.68
1:D:3635:CYS:O	1:D:3638:MET:HE3	1.93	0.68
1:D:4677:LEU:HD23	1:D:4711:PHE:CZ	2.29	0.68
1:B:2584[B]:HIS:CD2	1:B:2625:ARG:CD	2.76	0.68
1:C:2584[B]:HIS:CD2	1:C:2625:ARG:CD	2.76	0.68
1:A:1177:THR:O	1:A:1180:ARG:NH1	2.26	0.68
1:B:3635:CYS:CA	1:B:3638:MET:HE2	2.23	0.68
1:B:4710:SER:O	1:B:4713:SER:OG	2.09	0.68
1:C:228:ASP:OD1	1:C:229:GLU:N	2.25	0.68
1:C:4677:LEU:HD23	1:C:4711:PHE:CZ	2.29	0.68
1:D:2604:GLU:C	1:D:2608:MET:HE1	2.14	0.68
1:D:3834:ALA:O	1:D:3838:THR:HG23	1.92	0.68
1:B:1177:THR:O	1:B:1180:ARG:NH1	2.26	0.68
1:D:981:GLN:HA	1:D:984:LEU:CD1	2.24	0.68
1:A:321:GLU:OE1	1:A:321:GLU:N	2.25	0.68
1:B:4966:ASP:OD1	1:B:4967:TYR:N	2.26	0.68
1:C:3943:ILE:O	1:C:3948:LYS:NZ	2.27	0.68
1:A:2584[B]:HIS:CD2	1:A:2625:ARG:CD	2.76	0.68
1:A:4677:LEU:HD23	1:A:4711:PHE:CZ	2.29	0.68
1:C:3673:MET:CE	1:C:3725:TYR:CE1	2.76	0.68
1:A:3502:ARG:NH1	1:A:3502:ARG:O	2.27	0.68
1:A:3635:CYS:CA	1:A:3638:MET:HE2	2.24	0.68
1:B:3103:ILE:HD13	1:B:3168:THR:HG23	1.76	0.68
1:B:4677:LEU:HD23	1:B:4711:PHE:CZ	2.29	0.68
1:D:3673:MET:CE	1:D:3725:TYR:CE1	2.76	0.68
1:B:3943:ILE:O	1:B:3948:LYS:NZ	2.27	0.68
1:D:4966:ASP:OD1	1:D:4967:TYR:N	2.26	0.68
1:A:1422:ASP:OD2	1:A:1568:LYS:NZ	2.20	0.67
1:C:3502:ARG:NH1	1:C:3502:ARG:O	2.27	0.67
1:D:1561:VAL:HG12	1:D:1562:ILE:HG23	1.75	0.67
1:C:3103:ILE:HD13	1:C:3168:THR:HG23	1.75	0.67
1:B:981:GLN:HA	1:B:984:LEU:CD1	2.24	0.67
1:B:3635:CYS:HA	1:B:3638:MET:HE2	1.76	0.67
1:C:1177:THR:O	1:C:1180:ARG:NH1	2.26	0.67
1:C:4677:LEU:HD23	1:C:4711:PHE:CE1	2.29	0.67
1:A:3635:CYS:O	1:A:3638:MET:HE3	1.94	0.67
1:B:1422:ASP:OD2	1:B:1568:LYS:NZ	2.20	0.67
1:D:1303:CYS:O	1:D:1304:THR:OG1	2.07	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3943:ILE:O	1:D:3948:LYS:NZ	2.27	0.67
1:C:981:GLN:HA	1:C:984:LEU:CD1	2.24	0.67
1:B:1561:VAL:HG12	1:B:1562:ILE:HG23	1.75	0.67
1:D:4677:LEU:HD23	1:D:4711:PHE:CE1	2.29	0.67
1:C:2196:ASN:OD1	1:C:2199:ARG:NH2	2.28	0.67
1:A:1561:VAL:HG12	1:A:1562:ILE:HG23	1.75	0.67
1:A:2196:ASN:OD1	1:A:2199:ARG:NH2	2.28	0.67
1:A:3635:CYS:HA	1:A:3638:MET:HE2	1.77	0.67
1:A:4677:LEU:HD23	1:A:4711:PHE:CE1	2.29	0.67
1:B:4677:LEU:HD23	1:B:4711:PHE:CE1	2.29	0.67
1:D:3635:CYS:CA	1:D:3638:MET:HE2	2.25	0.67
1:C:140:ASP:OD2	1:C:142:THR:OG1	2.13	0.67
1:A:140:ASP:OD2	1:A:142:THR:OG1	2.13	0.67
1:A:3103:ILE:HD13	1:A:3168:THR:HG23	1.75	0.67
1:A:3115:VAL:O	1:A:3116:SER:OG	2.14	0.67
1:D:140:ASP:OD2	1:D:142:THR:OG1	2.13	0.67
1:C:2929:PHE:HA	1:C:2932:MET:CE	2.25	0.67
1:A:981:GLN:HA	1:A:984:LEU:CD1	2.24	0.66
1:B:3502:ARG:NH1	1:B:3502:ARG:O	2.27	0.66
1:C:1236:THR:OG1	1:C:1608:MET:SD	2.48	0.66
1:A:952:LYS:HD2	1:A:968:ALA:HB1	1.77	0.66
1:A:3943:ILE:O	1:A:3948:LYS:NZ	2.27	0.66
1:D:2929:PHE:HA	1:D:2932:MET:CE	2.25	0.66
1:D:3103:ILE:HD13	1:D:3168:THR:HG23	1.75	0.66
1:A:473:ASN:O	1:A:477:LEU:HD23	1.96	0.66
1:A:2929:PHE:HA	1:A:2932:MET:CE	2.25	0.66
2:H:79:ASP:OD1	2:H:80:TYR:N	2.29	0.66
1:B:140:ASP:OD2	1:B:142:THR:OG1	2.13	0.66
1:B:2929:PHE:HA	1:B:2932:MET:CE	2.25	0.66
1:D:2584[A]:HIS:CD2	1:D:2625:ARG:CZ	2.79	0.66
1:C:473:ASN:O	1:C:477:LEU:HD23	1.96	0.66
1:A:571:SER:OG	1:A:573:GLU:OE1	2.11	0.66
2:F:79:ASP:OD1	2:F:80:TYR:N	2.29	0.66
1:B:46:LEU:HD13	1:B:125:ARG:HH21	1.60	0.66
1:D:3502:ARG:NH1	1:D:3502:ARG:O	2.27	0.66
1:C:46:LEU:HD13	1:C:125:ARG:HH21	1.60	0.66
1:C:571:SER:OG	1:C:573:GLU:OE1	2.11	0.66
1:C:2584[A]:HIS:CD2	1:C:2625:ARG:CZ	2.79	0.66
1:D:473:ASN:O	1:D:477:LEU:HD23	1.96	0.66
1:D:1177:THR:O	1:D:1180:ARG:NH1	2.26	0.66
1:C:2159:LEU:HD13	1:C:2203:MET:HG2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3635:CYS:CA	1:C:3638:MET:HE2	2.25	0.66
1:C:4966:ASP:OD1	1:C:4967:TYR:N	2.27	0.66
1:A:2584[A]:HIS:CD2	1:A:2625:ARG:CZ	2.79	0.66
1:B:2196:ASN:OD1	1:B:2199:ARG:NH2	2.28	0.66
1:B:3048:ALA:O	1:B:3053:ARG:NH2	2.28	0.66
1:D:2196:ASN:OD1	1:D:2199:ARG:NH2	2.28	0.66
1:A:3946:GLN:OE1	1:A:3949:ARG:NH2	2.29	0.66
2:G:79:ASP:OD1	2:G:80:TYR:N	2.29	0.66
1:B:2584[A]:HIS:CD2	1:B:2625:ARG:CZ	2.79	0.66
1:C:952:LYS:HD2	1:C:968:ALA:HB1	1.77	0.66
1:C:2604:GLU:C	1:C:2608:MET:HE1	2.17	0.66
1:C:3115:VAL:O	1:C:3116:SER:OG	2.14	0.66
1:D:3321:ARG:CB	1:D:3321:ARG:HH11	2.10	0.66
1:D:3946:GLN:OE1	1:D:3949:ARG:NH2	2.29	0.66
1:C:3946:GLN:CD	1:C:3949:ARG:HE	1.99	0.66
1:A:3048:ALA:O	1:A:3053:ARG:NH2	2.28	0.65
1:B:2159:LEU:HD13	1:B:2203:MET:HG2	1.78	0.65
1:D:952:LYS:HD2	1:D:968:ALA:HB1	1.77	0.65
1:C:3048:ALA:O	1:C:3053:ARG:NH2	2.28	0.65
1:A:2159:LEU:HD13	1:A:2203:MET:HG2	1.78	0.65
1:A:4778:TRP:O	1:A:4782:VAL:HG23	1.96	0.65
1:D:2159:LEU:HD13	1:D:2203:MET:HG2	1.78	0.65
1:C:3946:GLN:OE1	1:C:3949:ARG:NH2	2.29	0.65
1:A:3946:GLN:CD	1:A:3949:ARG:HE	1.99	0.65
1:B:952:LYS:HD2	1:B:968:ALA:HB1	1.77	0.65
1:B:3051:ARG:O	1:B:3053:ARG:NE	2.29	0.65
1:B:3635:CYS:O	1:B:3638:MET:HE3	1.96	0.65
2:E:79:ASP:OD1	2:E:80:TYR:N	2.29	0.65
1:A:46:LEU:HD13	1:A:125:ARG:HH21	1.60	0.65
1:A:1079:LYS:HA	1:A:1189:LEU:HD11	1.79	0.65
1:B:4778:TRP:O	1:B:4782:VAL:HG23	1.96	0.65
1:D:3946:GLN:CD	1:D:3949:ARG:HE	1.99	0.65
1:C:3321:ARG:HH11	1:C:3321:ARG:CB	2.10	0.65
1:C:4778:TRP:O	1:C:4782:VAL:HG23	1.97	0.65
1:B:473:ASN:O	1:B:477:LEU:HD23	1.96	0.65
1:B:3321:ARG:CB	1:B:3321:ARG:HH11	2.10	0.65
1:B:3946:GLN:OE1	1:B:3949:ARG:NH2	2.29	0.65
1:D:571:SER:OG	1:D:573:GLU:OE1	2.11	0.65
1:C:2233:CYS:O	1:C:2235:PHE:N	2.30	0.65
1:A:881:LEU:O	1:A:885:THR:HG23	1.96	0.65
1:A:2233:CYS:O	1:A:2235:PHE:N	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:46:LEU:HD13	1:D:125:ARG:HH21	1.60	0.65
1:D:4778:TRP:O	1:D:4782:VAL:HG23	1.96	0.65
1:A:3946:GLN:OE1	1:A:3949:ARG:CZ	2.45	0.64
1:C:2605:ASP:CA	1:C:2608:MET:HE2	2.27	0.64
1:C:3635:CYS:HA	1:C:3638:MET:HE2	1.78	0.64
1:A:2604:GLU:C	1:A:2608:MET:HE1	2.17	0.64
1:A:3395:ARG:HD2	1:A:3454:GLU:OE2	1.98	0.64
1:B:3946:GLN:OE1	1:B:3949:ARG:CZ	2.45	0.64
1:C:961:MET:HE1	1:C:967:PRO:HD3	1.79	0.64
1:C:3878:ASP:OD1	1:C:3879:GLU:N	2.31	0.64
1:D:1079:LYS:HA	1:D:1189:LEU:HD11	1.79	0.64
1:D:2233:CYS:O	1:D:2235:PHE:N	2.30	0.64
1:D:3048:ALA:O	1:D:3053:ARG:NH2	2.28	0.64
1:D:3162:GLN:NE2	1:D:3203:VAL:HG11	2.12	0.64
1:D:3395:ARG:HD2	1:D:3454:GLU:OE2	1.98	0.64
1:C:3162:GLN:NE2	1:C:3203:VAL:HG11	2.12	0.64
1:B:2605:ASP:CA	1:B:2608:MET:HE2	2.25	0.64
1:A:3159:ASP:O	1:A:3163:VAL:HG23	1.98	0.64
1:D:881:LEU:O	1:D:885:THR:HG23	1.96	0.64
1:C:3346:VAL:HG11	1:C:3414:ARG:HB2	1.80	0.64
1:A:2761:TYR:HB3	1:A:2765:LYS:HZ3	1.61	0.64
1:B:881:LEU:O	1:B:885:THR:HG23	1.96	0.64
1:B:3159:ASP:O	1:B:3163:VAL:HG23	1.98	0.64
1:D:3878:ASP:OD1	1:D:3879:GLU:N	2.31	0.64
1:C:881:LEU:O	1:C:885:THR:HG23	1.96	0.64
1:C:3395:ARG:HD2	1:C:3454:GLU:OE2	1.98	0.64
1:A:3162:GLN:NE2	1:A:3203:VAL:HG11	2.12	0.64
1:B:3115:VAL:O	1:B:3116:SER:OG	2.14	0.64
1:B:3162:GLN:NE2	1:B:3203:VAL:HG11	2.12	0.64
1:B:3395:ARG:HD2	1:B:3454:GLU:OE2	1.98	0.64
1:B:3891:LEU:HD13	1:B:3899:PHE:CZ	2.33	0.64
1:D:3946:GLN:OE1	1:D:3949:ARG:CZ	2.45	0.64
1:C:3946:GLN:OE1	1:C:3949:ARG:CZ	2.45	0.64
1:B:1079:LYS:HA	1:B:1189:LEU:HD11	1.79	0.64
1:D:3891:LEU:HD13	1:D:3899:PHE:CZ	2.33	0.64
1:C:3051:ARG:O	1:C:3053:ARG:NE	2.29	0.64
1:C:3946:GLN:HA	1:C:3949:ARG:HD2	1.80	0.64
1:C:4078:GLN:HA	1:C:4081:VAL:HG12	1.80	0.64
1:A:3321:ARG:CB	1:A:3321:ARG:HH11	2.09	0.64
1:A:4818:MET:O	1:A:4824:ARG:NH1	2.32	0.63
1:B:571:SER:OG	1:B:573:GLU:OE1	2.11	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2761:TYR:HB3	1:B:2765:LYS:HZ3	1.60	0.63
1:B:2913:ALA:O	1:B:2917:ALA:N	2.31	0.63
1:D:3159:ASP:O	1:D:3163:VAL:HG23	1.98	0.63
1:D:3346:VAL:HG11	1:D:3414:ARG:HB2	1.80	0.63
1:C:1079:LYS:HA	1:C:1189:LEU:HD11	1.79	0.63
1:C:3159:ASP:O	1:C:3163:VAL:HG23	1.98	0.63
1:B:2233:CYS:O	1:B:2235:PHE:N	2.30	0.63
1:B:3946:GLN:CD	1:B:3949:ARG:HE	1.99	0.63
1:B:4078:GLN:HA	1:B:4081:VAL:HG12	1.80	0.63
1:D:4655:PHE:CE2	1:D:4659:ILE:HD11	2.34	0.63
1:D:3115:VAL:O	1:D:3116:SER:OG	2.14	0.63
1:D:4078:GLN:HA	1:D:4081:VAL:HG12	1.80	0.63
1:C:3891:LEU:HD13	1:C:3899:PHE:CZ	2.33	0.63
1:B:3946:GLN:HA	1:B:3949:ARG:HD2	1.80	0.63
1:B:4655:PHE:CE2	1:B:4659:ILE:HD11	2.34	0.63
1:D:2516:ASP:OD1	1:D:2517:PHE:N	2.31	0.63
1:C:672:VAL:O	1:C:680:THR:OG1	2.09	0.63
1:A:965:TYR:O	1:A:965:TYR:CD2	2.52	0.63
1:B:2516:ASP:OD1	1:B:2517:PHE:N	2.31	0.63
1:C:4818:MET:O	1:C:4824:ARG:NH1	2.32	0.63
1:A:3321:ARG:HB2	1:A:3321:ARG:HH11	1.63	0.63
1:A:3878:ASP:OD1	1:A:3879:GLU:N	2.31	0.63
1:B:3878:ASP:OD1	1:B:3879:GLU:N	2.31	0.63
1:D:3051:ARG:O	1:D:3053:ARG:NE	2.29	0.63
1:D:3635:CYS:HA	1:D:3638:MET:HE2	1.78	0.63
1:C:4655:PHE:CE2	1:C:4659:ILE:HD11	2.34	0.63
1:A:2913:ALA:O	1:A:2917:ALA:N	2.31	0.63
1:A:3891:LEU:HD13	1:A:3899:PHE:CZ	2.33	0.63
2:F:11:ASP:OD2	2:F:14:THR:OG1	2.14	0.63
1:D:2913:ALA:O	1:D:2917:ALA:N	2.32	0.63
1:C:965:TYR:CD2	1:C:965:TYR:O	2.52	0.63
1:A:3346:VAL:HG11	1:A:3414:ARG:HB2	1.80	0.63
1:A:2516:ASP:OD1	1:A:2517:PHE:N	2.31	0.62
1:A:4655:PHE:CE2	1:A:4659:ILE:HD11	2.34	0.62
1:B:965:TYR:CD2	1:B:965:TYR:O	2.52	0.62
1:D:3616:LYS:HA	1:D:3619:VAL:HG23	1.82	0.62
1:D:4818:MET:O	1:D:4824:ARG:NH1	2.32	0.62
1:A:672:VAL:O	1:A:680:THR:OG1	2.09	0.62
1:A:3946:GLN:HA	1:A:3949:ARG:HD2	1.80	0.62
1:A:4078:GLN:HA	1:A:4081:VAL:HG12	1.80	0.62
1:B:3321:ARG:HB2	1:B:3321:ARG:HH11	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2913:ALA:O	1:C:2917:ALA:N	2.31	0.62
1:D:2605:ASP:CA	1:D:2608:MET:HE2	2.28	0.62
1:C:4069:LYS:NZ	1:C:4130:ASN:OD1	2.30	0.62
1:A:3051:ARG:O	1:A:3053:ARG:NE	2.28	0.62
1:A:4069:LYS:NZ	1:A:4130:ASN:OD1	2.30	0.62
1:B:3346:VAL:HG11	1:B:3414:ARG:HB2	1.80	0.62
1:B:4818:MET:O	1:B:4824:ARG:NH1	2.32	0.62
1:D:941:MET:CE	1:D:944:GLU:HA	2.30	0.62
1:D:3611:HIS:ND1	1:D:3611:HIS:O	2.33	0.62
1:C:2520:HIS:O	1:C:2524:VAL:HG22	2.00	0.62
1:A:577:ILE:O	1:A:579:GLN:NE2	2.32	0.62
1:D:3946:GLN:HA	1:D:3949:ARG:HD2	1.81	0.62
1:C:3673:MET:HE2	1:C:3725:TYR:HE1	1.64	0.62
1:C:3786:CYS:SG	1:C:3831:SER:OG	2.57	0.62
1:A:2605:ASP:CA	1:A:2608:MET:HE2	2.27	0.62
1:A:3616:LYS:HA	1:A:3619:VAL:HG23	1.81	0.62
1:B:3786:CYS:SG	1:B:3831:SER:OG	2.57	0.62
1:D:3786:CYS:SG	1:D:3831:SER:OG	2.56	0.62
1:C:3321:ARG:HB2	1:C:3321:ARG:HH11	1.63	0.62
1:A:941:MET:CE	1:A:944:GLU:HA	2.30	0.62
1:D:2229:VAL:HG21	1:D:2267:MET:HE1	1.81	0.62
1:B:941:MET:CE	1:B:944:GLU:HA	2.30	0.62
1:B:4071:ILE:O	1:B:4074:SER:OG	2.14	0.62
1:D:577:ILE:O	1:D:579:GLN:NE2	2.32	0.62
1:D:2520:HIS:O	1:D:2524:VAL:HG22	2.00	0.62
1:D:2929:PHE:HA	1:D:2932:MET:SD	2.40	0.62
1:C:1422:ASP:OD2	1:C:1568:LYS:NZ	2.20	0.62
1:D:961:MET:HE1	1:D:967:PRO:HD3	1.81	0.62
1:D:965:TYR:O	1:D:965:TYR:CD2	2.52	0.62
1:C:577:ILE:O	1:C:579:GLN:NE2	2.32	0.62
1:C:941:MET:CE	1:C:944:GLU:HA	2.30	0.62
1:C:2604:GLU:C	1:C:2608:MET:CE	2.69	0.62
1:C:3673:MET:HE2	1:C:3725:TYR:CE1	2.35	0.62
1:A:980:ALA:C	1:A:984:LEU:HD12	2.21	0.61
1:B:1427:ILE:HG23	1:B:1428:LEU:HD22	1.82	0.61
1:D:2604:GLU:C	1:D:2608:MET:CE	2.69	0.61
1:B:2604:GLU:C	1:B:2608:MET:CE	2.69	0.61
1:D:3321:ARG:HB2	1:D:3321:ARG:HH11	1.63	0.61
1:C:294:THR:O	1:C:298:GLY:N	2.33	0.61
1:C:2516:ASP:OD1	1:C:2517:PHE:N	2.31	0.61
1:A:2499:LYS:O	1:A:2503:VAL:HG23	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2604:GLU:C	1:A:2608:MET:CE	2.69	0.61
1:D:294:THR:O	1:D:298:GLY:N	2.33	0.61
1:D:2499:LYS:O	1:D:2503:VAL:HG23	2.00	0.61
1:D:4069:LYS:NZ	1:D:4130:ASN:OD1	2.30	0.61
1:C:1003:GLN:O	1:C:1016:ARG:NH2	2.34	0.61
1:C:4563:ARG:NH2	1:C:4815:ASP:OD1	2.33	0.61
1:B:2604:GLU:C	1:B:2608:MET:HE1	2.19	0.61
1:C:2974:ILE:HD13	1:C:3049:LEU:HD12	1.81	0.61
1:C:3616:LYS:HA	1:C:3619:VAL:HG23	1.82	0.61
1:A:1427:ILE:HG23	1:A:1428:LEU:HD22	1.82	0.61
1:B:2520:HIS:O	1:B:2524:VAL:HG22	2.00	0.61
1:D:1427:ILE:HG23	1:D:1428:LEU:HD22	1.82	0.61
1:D:2974:ILE:HD13	1:D:3049:LEU:HD12	1.81	0.61
1:A:3611:HIS:ND1	1:A:3611:HIS:O	2.33	0.61
1:D:1003:GLN:O	1:D:1016:ARG:NH2	2.34	0.61
1:D:2285:GLU:OE1	1:D:3870:ASN:ND2	2.32	0.61
1:C:1427:ILE:HG23	1:C:1428:LEU:HD22	1.82	0.61
1:B:1810:LYS:O	1:B:1814:MET:HG3	2.01	0.61
1:B:2974:ILE:HD13	1:B:3049:LEU:HD12	1.81	0.61
1:B:3616:LYS:HA	1:B:3619:VAL:HG23	1.81	0.61
1:D:2211:MET:O	1:D:2215:LEU:HD13	2.01	0.61
1:C:2499:LYS:O	1:C:2503:VAL:HG23	2.00	0.61
1:A:1003:GLN:O	1:A:1016:ARG:NH2	2.34	0.61
1:A:1810:LYS:O	1:A:1814:MET:HG3	2.01	0.61
1:A:2211:MET:O	1:A:2215:LEU:HD13	2.01	0.61
1:A:2520:HIS:O	1:A:2524:VAL:HG22	2.00	0.61
1:D:1927:LEU:HD22	1:D:2101:MET:SD	2.41	0.61
1:C:980:ALA:C	1:C:984:LEU:HD12	2.21	0.61
1:C:2229:VAL:HG21	1:C:2267:MET:HE2	1.83	0.61
1:A:2929:PHE:HA	1:A:2932:MET:SD	2.40	0.61
1:A:3248:ARG:NH1	1:A:3252:ASP:CG	2.54	0.61
1:B:577:ILE:O	1:B:579:GLN:NE2	2.32	0.61
1:B:1003:GLN:O	1:B:1016:ARG:NH2	2.34	0.61
1:B:2499:LYS:O	1:B:2503:VAL:HG23	2.00	0.61
1:B:980:ALA:C	1:B:984:LEU:HD12	2.21	0.61
1:C:2929:PHE:HA	1:C:2932:MET:SD	2.40	0.61
1:C:3611:HIS:ND1	1:C:3611:HIS:O	2.33	0.61
1:A:3786:CYS:SG	1:A:3831:SER:OG	2.57	0.60
1:D:1810:LYS:O	1:D:1814:MET:HG3	2.01	0.60
1:D:3588:ASP:O	1:D:3592:ILE:HD12	2.01	0.60
1:C:2211:MET:O	1:C:2215:LEU:HD13	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1927:LEU:HD22	1:A:2101:MET:SD	2.41	0.60
1:A:2587:TYR:HD2	1:A:2625:ARG:NH1	1.99	0.60
2:H:3:GLN:HE21	2:H:75:THR:CG2	2.14	0.60
2:H:3:GLN:HE21	2:H:75:THR:HG21	1.67	0.60
2:F:3:GLN:HE21	2:F:75:THR:CG2	2.14	0.60
1:B:294:THR:O	1:B:298:GLY:N	2.33	0.60
1:B:2929:PHE:HA	1:B:2932:MET:SD	2.40	0.60
1:D:980:ALA:C	1:D:984:LEU:HD12	2.21	0.60
1:C:2523:ASP:OD1	1:C:2524:VAL:HG13	2.01	0.60
1:C:4929:LEU:O	1:C:4933:GLN:OE1	2.20	0.60
1:A:294:THR:O	1:A:298:GLY:N	2.33	0.60
1:B:3248:ARG:NH1	1:B:3252:ASP:CG	2.54	0.60
1:D:3248:ARG:NH1	1:D:3252:ASP:CG	2.54	0.60
2:G:3:GLN:HE21	2:G:75:THR:CG2	2.14	0.60
1:C:1810:LYS:O	1:C:1814:MET:HG3	2.01	0.60
1:A:2974:ILE:HD13	1:A:3049:LEU:HD12	1.81	0.60
1:B:2211:MET:O	1:B:2215:LEU:HD13	2.01	0.60
1:A:3946:GLN:OE1	1:A:3949:ARG:NH1	2.35	0.60
1:B:3847:PHE:HZ	1:B:3937:TYR:HH	1.49	0.60
1:D:672:VAL:O	1:D:680:THR:OG1	2.09	0.60
1:C:1927:LEU:HD22	1:C:2101:MET:SD	2.41	0.60
1:C:2434:GLY:O	1:C:2508:ARG:NE	2.34	0.60
1:B:3611:HIS:ND1	1:B:3611:HIS:O	2.33	0.60
1:A:1758:ARG:NH1	1:A:1759:ARG:O	2.35	0.60
2:E:3:GLN:HE21	2:E:75:THR:CG2	2.14	0.60
2:G:3:GLN:HE21	2:G:75:THR:HG21	1.66	0.60
1:B:2229:VAL:HG21	1:B:2267:MET:HE2	1.83	0.60
1:B:4929:LEU:O	1:B:4933:GLN:OE1	2.20	0.60
1:C:3635:CYS:O	1:C:3638:MET:CE	2.50	0.60
1:A:2523:ASP:OD1	1:A:2524:VAL:HG13	2.01	0.60
1:A:3635:CYS:O	1:A:3638:MET:CE	2.50	0.60
1:A:4929:LEU:O	1:A:4933:GLN:OE1	2.20	0.60
1:B:1236:THR:OG1	1:B:1608:MET:SD	2.48	0.60
1:B:3383:ALA:H	1:B:3384:LYS:HZ2	1.48	0.60
1:B:4069:LYS:NZ	1:B:4130:ASN:OD1	2.30	0.60
1:C:3356:SER:OG	1:C:3357:HIS:ND1	2.32	0.60
1:C:3588:ASP:O	1:C:3592:ILE:HD12	2.01	0.60
2:E:3:GLN:HE21	2:E:75:THR:HG21	1.66	0.59
1:B:1758:ARG:NH1	1:B:1759:ARG:O	2.35	0.59
1:B:1927:LEU:HD22	1:B:2101:MET:SD	2.41	0.59
1:B:2523:ASP:OD1	1:B:2524:VAL:HG13	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4563:ARG:NH2	1:D:4815:ASP:OD1	2.33	0.59
2:H:11:ASP:OD1	2:H:12:GLY:N	2.35	0.59
1:B:2490:MET:HG3	1:B:2545:GLU:OE1	2.02	0.59
1:B:3588:ASP:O	1:B:3592:ILE:HD12	2.01	0.59
1:D:1758:ARG:NH1	1:D:1759:ARG:O	2.35	0.59
1:D:2741:GLU:HB3	1:D:2743:LEU:HD22	1.84	0.59
1:C:3946:GLN:OE1	1:C:3949:ARG:NH1	2.35	0.59
1:A:234:SER:HG	1:A:238:SER:HG	1.49	0.59
1:C:1758:ARG:NH1	1:C:1759:ARG:O	2.35	0.59
1:A:2285:GLU:OE1	1:A:3870:ASN:ND2	2.32	0.59
1:A:2490:MET:HG3	1:A:2545:GLU:OE1	2.03	0.59
1:B:3635:CYS:O	1:B:3638:MET:CE	2.50	0.59
1:B:3946:GLN:OE1	1:B:3949:ARG:NH1	2.35	0.59
1:C:3248:ARG:NH1	1:C:3252:ASP:CG	2.54	0.59
1:A:3588:ASP:O	1:A:3592:ILE:HD12	2.01	0.59
2:E:11:ASP:OD1	2:E:12:GLY:N	2.35	0.59
1:C:3673:MET:CE	1:C:3725:TYR:HE1	2.15	0.59
2:G:11:ASP:OD1	2:G:12:GLY:N	2.35	0.59
1:D:3514:LEU:HD21	1:D:3602:VAL:HG13	1.84	0.59
1:D:4081:VAL:HG13	1:D:4081:VAL:O	2.02	0.59
1:D:4929:LEU:O	1:D:4933:GLN:OE1	2.20	0.59
1:C:2285:GLU:OE1	1:C:3870:ASN:ND2	2.32	0.59
2:F:11:ASP:OD1	2:F:12:GLY:N	2.35	0.59
1:D:2490:MET:HG3	1:D:2545:GLU:OE1	2.03	0.59
1:D:2523:ASP:OD1	1:D:2524:VAL:HG13	2.01	0.59
1:A:2762:THR:HA	1:A:2765:LYS:HE2	1.85	0.59
1:A:3531:ASP:O	1:A:3535:LEU:HD12	2.02	0.59
1:C:2233:CYS:O	1:C:2236:LEU:N	2.36	0.59
1:A:2741:GLU:HB3	1:A:2743:LEU:HD22	1.84	0.59
1:A:3383:ALA:H	1:A:3384:LYS:HZ2	1.51	0.59
1:B:2587:TYR:HD2	1:B:2625:ARG:NH1	1.99	0.59
1:D:3531:ASP:O	1:D:3535:LEU:HD12	2.02	0.59
2:H:24:VAL:HG21	2:H:59:TRP:HZ3	1.67	0.59
1:B:3514:LEU:HD21	1:B:3602:VAL:HG13	1.84	0.59
1:B:3673:MET:HE2	1:B:3725:TYR:HE1	1.67	0.59
1:D:234:SER:HG	1:D:238:SER:HG	1.49	0.59
1:A:3673:MET:CE	1:A:3725:TYR:HE1	2.15	0.58
1:B:2285:GLU:OE1	1:B:3870:ASN:ND2	2.32	0.58
1:A:941:MET:HE3	1:A:944:GLU:HA	1.84	0.58
1:B:3531:ASP:O	1:B:3535:LEU:HD12	2.02	0.58
1:D:2587:TYR:CD2	1:D:2625:ARG:NH1	2.70	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4081:VAL:HG13	1:A:4081:VAL:O	2.02	0.58
2:E:3:GLN:HE21	2:E:75:THR:HB	1.68	0.58
1:B:928:THR:O	1:B:932:LEU:HD23	2.03	0.58
1:D:2762:THR:HA	1:D:2765:LYS:HE2	1.85	0.58
1:D:3673:MET:CE	1:D:3725:TYR:HE1	2.15	0.58
1:C:2587:TYR:HD2	1:C:2625:ARG:NH1	1.99	0.58
1:B:984:LEU:HD21	1:B:1056:PRO:HD2	1.85	0.58
1:D:928:THR:O	1:D:932:LEU:HD23	2.03	0.58
1:D:3946:GLN:OE1	1:D:3949:ARG:NH1	2.35	0.58
2:H:3:GLN:HE21	2:H:75:THR:HB	1.68	0.58
1:C:2490:MET:HG3	1:C:2545:GLU:OE1	2.03	0.58
1:C:2741:GLU:HB3	1:C:2743:LEU:HD22	1.84	0.58
1:A:3514:LEU:HD21	1:A:3602:VAL:HG13	1.84	0.58
2:F:24:VAL:HG21	2:F:59:TRP:HZ3	1.67	0.58
1:B:3891:LEU:HB3	1:B:3899:PHE:CE2	2.39	0.58
1:B:4081:VAL:HG13	1:B:4081:VAL:O	2.02	0.58
1:D:2233:CYS:O	1:D:2236:LEU:N	2.36	0.58
1:D:3673:MET:HE1	1:D:3725:TYR:CE1	2.38	0.58
1:C:3514:LEU:HD21	1:C:3602:VAL:HG13	1.84	0.58
1:A:3673:MET:HE1	1:A:3725:TYR:CE1	2.37	0.58
1:B:2233:CYS:O	1:B:2236:LEU:N	2.36	0.58
1:D:3635:CYS:O	1:D:3638:MET:CE	2.50	0.58
1:C:928:THR:O	1:C:932:LEU:HD23	2.03	0.58
1:A:928:THR:O	1:A:932:LEU:HD23	2.03	0.58
2:G:24:VAL:HG21	2:G:59:TRP:HZ3	1.68	0.58
1:D:3891:LEU:HB3	1:D:3899:PHE:CE2	2.39	0.58
1:C:4081:VAL:O	1:C:4081:VAL:HG13	2.02	0.58
1:A:3891:LEU:HB3	1:A:3899:PHE:CE2	2.39	0.58
1:A:4563:ARG:NH2	1:A:4815:ASP:OD1	2.33	0.58
1:B:2762:THR:HA	1:B:2765:LYS:HE2	1.85	0.58
1:B:4563:ARG:NH2	1:B:4815:ASP:OD1	2.33	0.58
1:C:2762:THR:HA	1:C:2765:LYS:HE2	1.85	0.58
1:A:2233:CYS:O	1:A:2236:LEU:N	2.36	0.58
1:D:2587:TYR:HD2	1:D:2625:ARG:NH1	1.99	0.58
1:C:984:LEU:HD21	1:C:1056:PRO:HD2	1.85	0.58
1:A:2434:GLY:O	1:A:2508:ARG:NE	2.34	0.57
1:A:3321:ARG:NH1	1:A:3321:ARG:CB	2.66	0.57
2:F:3:GLN:HE21	2:F:75:THR:HG21	1.67	0.57
1:B:2741:GLU:HB3	1:B:2743:LEU:HD22	1.84	0.57
1:B:3097:GLU:O	1:B:3100:SER:OG	2.21	0.57
1:C:156:GLN:OE1	1:C:156:GLN:HA	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3097:GLU:O	1:C:3100:SER:OG	2.21	0.57
1:C:4691:GLN:OE1	1:C:4703:ARG:NH1	2.35	0.57
1:A:156:GLN:OE1	1:A:156:GLN:HA	2.04	0.57
1:D:4705:VAL:HG22	1:D:4711:PHE:HD1	1.69	0.57
1:C:3531:ASP:O	1:C:3535:LEU:HD12	2.02	0.57
1:A:3673:MET:HE2	1:A:3725:TYR:HE1	1.68	0.57
1:B:4944:ARG:NH1	1:C:4942:GLU:OE1	2.36	0.57
1:D:4691:GLN:OE1	1:D:4703:ARG:NH1	2.35	0.57
1:A:984:LEU:HD21	1:A:1056:PRO:HD2	1.85	0.57
1:A:4705:VAL:HG22	1:A:4711:PHE:HD1	1.69	0.57
1:B:941:MET:HE2	1:B:944:GLU:HA	1.86	0.57
1:B:3321:ARG:NH1	1:B:3321:ARG:CB	2.66	0.57
1:D:156:GLN:OE1	1:D:156:GLN:HA	2.05	0.57
1:C:3343:GLN:O	1:C:3346:VAL:HG12	2.05	0.57
1:C:3891:LEU:HB3	1:C:3899:PHE:CE2	2.39	0.57
1:A:2522:LEU:HD23	1:A:2582:MET:CE	2.35	0.57
1:A:2911:LEU:HD12	1:A:2912:THR:O	2.05	0.57
1:B:4705:VAL:HG22	1:B:4711:PHE:HD1	1.69	0.57
1:D:3673:MET:HE2	1:D:3725:TYR:HE1	1.68	0.57
1:A:774:ASP:OD2	1:A:1470:ARG:NH2	2.37	0.57
2:E:24:VAL:HG21	2:E:59:TRP:HZ3	1.67	0.57
1:B:1999:ARG:O	1:B:3638:MET:HE3	2.03	0.57
1:B:2020:ASP:OD1	1:B:2021:CYS:N	2.38	0.57
1:B:2522:LEU:HD23	1:B:2582:MET:CE	2.34	0.57
1:B:3531:ASP:OD1	1:B:3532:LEU:N	2.37	0.57
1:B:3673:MET:HE1	1:B:3725:TYR:CE1	2.39	0.57
1:B:4745:LEU:HA	1:B:4748:LEU:HD13	1.86	0.57
1:D:493:ARG:O	1:D:496:VAL:HG22	2.04	0.57
1:C:2522:LEU:HD23	1:C:2582:MET:CE	2.34	0.57
1:D:2911:LEU:HD12	1:D:2912:THR:O	2.05	0.57
1:C:2911:LEU:HD12	1:C:2912:THR:O	2.05	0.57
1:A:961:MET:HE1	1:A:967:PRO:HD3	1.85	0.57
1:A:2020:ASP:OD1	1:A:2021:CYS:N	2.38	0.57
1:B:1599:MET:HG3	1:B:1601:MET:HE2	1.86	0.57
1:D:3343:GLN:O	1:D:3346:VAL:HG12	2.05	0.57
1:A:493:ARG:O	1:A:496:VAL:HG22	2.04	0.57
1:A:961:MET:CE	1:A:965:TYR:C	2.74	0.57
1:A:2229:VAL:HG21	1:A:2267:MET:HE2	1.85	0.57
1:B:4691:GLN:OE1	1:B:4703:ARG:NH1	2.35	0.57
1:D:4224:GLU:OE2	1:D:4224:GLU:N	2.38	0.57
1:C:3384:LYS:HD3	1:C:3384:LYS:N	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4745:LEU:HA	1:C:4748:LEU:HD13	1.86	0.57
1:A:3089:LYS:HB3	1:A:3093:ARG:NH1	2.20	0.57
1:B:672:VAL:O	1:B:680:THR:OG1	2.09	0.57
1:B:3628:ARG:HG3	1:B:3628:ARG:O	2.05	0.57
1:B:4224:GLU:N	1:B:4224:GLU:OE2	2.38	0.57
1:D:961:MET:CE	1:D:965:TYR:C	2.73	0.57
1:D:2538:THR:O	1:D:2542:SER:N	2.37	0.57
1:D:3089:LYS:HB3	1:D:3093:ARG:NH1	2.20	0.57
1:D:3197:LEU:O	1:D:3201:MET:HG3	2.05	0.57
1:D:4651:THR:OG1	1:D:4803:HIS:NE2	2.33	0.57
1:C:2020:ASP:OD1	1:C:2021:CYS:N	2.38	0.57
1:C:3639:THR:HG21	1:C:3644:LEU:HD21	1.87	0.57
1:C:4224:GLU:N	1:C:4224:GLU:OE2	2.38	0.57
1:C:4754:ASN:OD1	1:C:4755:GLU:N	2.38	0.57
1:A:3531:ASP:OD1	1:A:3532:LEU:N	2.37	0.56
2:G:3:GLN:HE21	2:G:75:THR:HB	1.68	0.56
1:B:1926:LEU:HD23	1:B:1929:MET:SD	2.45	0.56
1:D:941:MET:HE3	1:D:944:GLU:HA	1.87	0.56
1:D:3946:GLN:OE1	1:D:3949:ARG:NE	2.38	0.56
1:A:1999:ARG:O	1:A:3638:MET:HE3	2.05	0.56
1:A:3343:GLN:O	1:A:3346:VAL:HG12	2.05	0.56
1:A:4745:LEU:HA	1:A:4748:LEU:HD13	1.86	0.56
2:G:11:ASP:OD2	2:G:14:THR:OG1	2.14	0.56
2:F:3:GLN:HE21	2:F:75:THR:HB	1.68	0.56
1:B:2587:TYR:CD2	1:B:2625:ARG:NH1	2.70	0.56
1:B:3089:LYS:HB3	1:B:3093:ARG:NH1	2.20	0.56
1:B:3368:ARG:O	1:B:3372:VAL:HG23	2.05	0.56
1:B:4543:GLU:O	1:B:4547:GLN:HG2	2.05	0.56
1:D:3628:ARG:O	1:D:3628:ARG:HG3	2.05	0.56
1:C:234:SER:HG	1:C:238:SER:HG	1.53	0.56
1:C:3197:LEU:O	1:C:3201:MET:HG3	2.05	0.56
1:C:4543:GLU:O	1:C:4547:GLN:HG2	2.05	0.56
1:A:1448:VAL:HG22	1:A:1554:VAL:HG23	1.88	0.56
1:A:2538:THR:O	1:A:2542:SER:N	2.37	0.56
1:A:3628:ARG:HG3	1:A:3628:ARG:O	2.06	0.56
1:B:493:ARG:O	1:B:496:VAL:HG22	2.04	0.56
1:B:774:ASP:OD2	1:B:1470:ARG:NH2	2.37	0.56
1:B:961:MET:CE	1:B:965:TYR:C	2.74	0.56
1:B:1171:SER:OG	1:B:1175:SER:OG	2.08	0.56
1:B:3639:THR:HG21	1:B:3644:LEU:HD21	1.87	0.56
1:D:774:ASP:OD2	1:D:1470:ARG:NH2	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:984:LEU:HD21	1:D:1056:PRO:HD2	1.85	0.56
1:D:2522:LEU:HD23	1:D:2582:MET:CE	2.34	0.56
1:D:2584[B]:HIS:NE2	1:D:2625:ARG:HD2	2.21	0.56
1:D:4745:LEU:HA	1:D:4748:LEU:HD13	1.86	0.56
1:D:4942:GLU:OE1	1:C:4944:ARG:NH1	2.37	0.56
1:C:493:ARG:O	1:C:496:VAL:HG22	2.04	0.56
1:C:961:MET:CE	1:C:965:TYR:C	2.73	0.56
1:C:1926:LEU:HD23	1:C:1929:MET:SD	2.46	0.56
1:C:2584[B]:HIS:NE2	1:C:2625:ARG:HD2	2.21	0.56
1:C:2587:TYR:CD2	1:C:2625:ARG:NH1	2.70	0.56
1:C:3089:LYS:HB3	1:C:3093:ARG:NH1	2.20	0.56
1:A:4649:LEU:O	1:A:4653:VAL:HG23	2.06	0.56
1:D:3368:ARG:O	1:D:3372:VAL:HG23	2.05	0.56
1:C:35:LEU:HD23	1:C:51:PRO:HA	1.87	0.56
1:C:941:MET:HE2	1:C:944:GLU:HA	1.88	0.56
1:C:2292:GLU:OE2	1:C:2352:VAL:HG21	2.06	0.56
1:C:3628:ARG:HG3	1:C:3628:ARG:O	2.06	0.56
1:C:3933:PHE:HE2	1:C:3951:PHE:CD2	2.23	0.56
1:C:4782:VAL:O	1:C:4785:THR:OG1	2.23	0.56
1:A:445:LEU:HD23	1:A:525:LEU:HD22	1.87	0.56
1:A:4090:LYS:HE3	1:A:4112:LEU:HD22	1.88	0.56
1:B:156:GLN:OE1	1:B:156:GLN:HA	2.04	0.56
1:B:2497:ASP:OD1	1:B:2498:HIS:N	2.39	0.56
1:B:3343:GLN:O	1:B:3346:VAL:HG12	2.05	0.56
1:B:4649:LEU:O	1:B:4653:VAL:HG23	2.06	0.56
1:C:3368:ARG:O	1:C:3372:VAL:HG23	2.05	0.56
1:C:4705:VAL:HG22	1:C:4711:PHE:HD1	1.69	0.56
1:A:2587:TYR:CD2	1:A:2625:ARG:NH1	2.70	0.56
1:B:3946:GLN:OE1	1:B:3949:ARG:NE	2.38	0.56
1:C:931:THR:O	1:C:935:LEU:HD13	2.06	0.56
1:C:2810:LYS:O	1:C:2814:LYS:HG3	2.06	0.56
1:A:2974:ILE:O	1:A:2978:GLU:OE1	2.24	0.56
1:A:3097:GLU:O	1:A:3100:SER:OG	2.21	0.56
1:A:3384:LYS:HD3	1:A:3384:LYS:N	2.20	0.56
1:B:2911:LEU:HD12	1:B:2912:THR:O	2.05	0.56
1:D:1926:LEU:HD23	1:D:1929:MET:SD	2.45	0.56
1:D:4543:GLU:O	1:D:4547:GLN:HG2	2.05	0.56
1:C:984:LEU:O	1:C:988:LEU:HD23	2.06	0.56
1:C:3946:GLN:OE1	1:C:3949:ARG:NE	2.38	0.56
1:A:931:THR:O	1:A:935:LEU:HD13	2.06	0.56
1:A:3933:PHE:HE2	1:A:3951:PHE:CD2	2.23	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2538:THR:O	1:B:2542:SER:N	2.37	0.56
1:D:317:ARG:NH2	1:D:321:GLU:O	2.38	0.56
1:D:3933:PHE:HE2	1:D:3951:PHE:CD2	2.23	0.56
1:C:774:ASP:OD2	1:C:1470:ARG:NH2	2.37	0.56
1:A:2801:ASP:OD1	1:A:2802:LYS:N	2.39	0.56
1:A:4224:GLU:N	1:A:4224:GLU:OE2	2.38	0.56
1:B:2292:GLU:OE2	1:B:2352:VAL:HG21	2.06	0.56
1:B:3197:LEU:O	1:B:3201:MET:HG3	2.05	0.56
1:B:4090:LYS:HE3	1:B:4112:LEU:HD22	1.88	0.56
1:C:2234:ARG:O	1:C:2238:TYR:CD2	2.59	0.56
1:A:1599:MET:HG3	1:A:1601:MET:HE2	1.86	0.56
1:A:2234:ARG:O	1:A:2238:TYR:CD2	2.59	0.56
1:A:3957:VAL:O	1:A:3961:VAL:HG23	2.06	0.56
1:A:4543:GLU:O	1:A:4547:GLN:HG2	2.05	0.56
1:B:2234:ARG:O	1:B:2238:TYR:CD2	2.59	0.56
1:B:2810:LYS:O	1:B:2814:LYS:HG3	2.06	0.56
1:B:3660:ALA:O	1:B:3664:THR:OG1	2.17	0.56
1:B:3673:MET:CE	1:B:3725:TYR:HE1	2.15	0.56
1:B:4204:GLN:HB3	1:B:4245:MET:HG2	1.88	0.56
1:D:2020:ASP:OD1	1:D:2021:CYS:N	2.38	0.56
1:D:2810:LYS:O	1:D:2814:LYS:HG3	2.06	0.56
1:D:2974:ILE:O	1:D:2978:GLU:OE1	2.24	0.56
1:C:4204:GLN:HB3	1:C:4245:MET:HG2	1.88	0.56
1:C:4686:LEU:O	1:C:4691:GLN:N	2.36	0.56
1:A:256:ALA:HB2	1:A:477:LEU:HD12	1.89	0.55
1:A:317:ARG:NH2	1:A:321:GLU:O	2.38	0.55
1:A:2584[B]:HIS:NE2	1:A:2625:ARG:HD2	2.21	0.55
1:A:3197:LEU:O	1:A:3201:MET:HG3	2.05	0.55
1:B:931:THR:O	1:B:935:LEU:HD13	2.06	0.55
1:B:2974:ILE:O	1:B:2978:GLU:OE1	2.24	0.55
1:B:3384:LYS:HD3	1:B:3384:LYS:N	2.20	0.55
1:B:3957:VAL:O	1:B:3961:VAL:HG23	2.06	0.55
1:D:2292:GLU:OE2	1:D:2352:VAL:HG21	2.06	0.55
1:D:3639:THR:HG21	1:D:3644:LEU:HD21	1.87	0.55
1:A:984:LEU:O	1:A:988:LEU:HD23	2.06	0.55
1:A:3368:ARG:O	1:A:3372:VAL:HG23	2.05	0.55
1:A:3383:ALA:H	1:A:3384:LYS:NZ	2.05	0.55
1:B:256:ALA:HB2	1:B:477:LEU:HD12	1.89	0.55
1:B:3933:PHE:HE2	1:B:3951:PHE:CD2	2.23	0.55
1:D:445:LEU:HD23	1:D:525:LEU:HD22	1.87	0.55
1:D:1749:PRO:HB2	1:D:1758:ARG:NH2	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1965:TYR:CE2	1:D:1969:LEU:HD11	2.41	0.55
1:C:2801:ASP:OD1	1:C:2802:LYS:N	2.39	0.55
1:C:4090:LYS:HE3	1:C:4112:LEU:HD22	1.88	0.55
1:A:35:LEU:HD23	1:A:51:PRO:HA	1.87	0.55
1:A:1749:PRO:HB2	1:A:1758:ARG:NH2	2.22	0.55
1:A:1926:LEU:HD23	1:A:1929:MET:SD	2.45	0.55
1:A:2292:GLU:OE2	1:A:2352:VAL:HG21	2.06	0.55
1:A:3639:THR:HG21	1:A:3644:LEU:HD21	1.87	0.55
1:A:3946:GLN:OE1	1:A:3949:ARG:NE	2.38	0.55
1:B:35:LEU:HD23	1:B:51:PRO:HA	1.87	0.55
1:B:317:ARG:NH2	1:B:321:GLU:O	2.39	0.55
1:B:2584[B]:HIS:NE2	1:B:2625:ARG:HD2	2.21	0.55
1:D:931:THR:O	1:D:935:LEU:HD13	2.06	0.55
1:D:2497:ASP:OD1	1:D:2498:HIS:N	2.39	0.55
1:D:3384:LYS:HD3	1:D:3384:LYS:N	2.20	0.55
1:C:1749:PRO:HB2	1:C:1758:ARG:NH2	2.22	0.55
1:C:3947:GLY:O	1:C:3951:PHE:HD2	1.90	0.55
1:A:2810:LYS:O	1:A:2814:LYS:HG3	2.06	0.55
1:A:3947:GLY:O	1:A:3951:PHE:HD2	1.90	0.55
1:D:3383:ALA:H	1:D:3384:LYS:NZ	2.04	0.55
1:A:4691:GLN:OE1	1:A:4703:ARG:NH1	2.35	0.55
1:B:984:LEU:O	1:B:988:LEU:HD23	2.06	0.55
1:B:1749:PRO:HB2	1:B:1758:ARG:NH2	2.22	0.55
1:D:965:TYR:O	1:D:965:TYR:CG	2.57	0.55
1:D:2234:ARG:O	1:D:2238:TYR:CD2	2.59	0.55
1:C:1748:PHE:HB3	1:C:1758:ARG:HG2	1.88	0.55
1:C:2497:ASP:OD1	1:C:2498:HIS:N	2.39	0.55
1:A:4942:GLU:OE1	1:D:4944:ARG:NH1	2.37	0.55
1:B:1448:VAL:HG22	1:B:1554:VAL:HG23	1.88	0.55
1:B:3110:LEU:HD23	1:B:3183:VAL:HG22	1.89	0.55
1:B:3718:GLU:OE2	1:B:3723:MET:CE	2.55	0.55
1:D:722:TRP:CZ2	1:D:727:ALA:HB2	2.42	0.55
1:D:2801:ASP:OD1	1:D:2802:LYS:N	2.39	0.55
1:D:3628:ARG:HG3	1:D:3631:ALA:HB3	1.89	0.55
1:D:4754:ASN:OD1	1:D:4755:GLU:N	2.38	0.55
1:C:1448:VAL:HG22	1:C:1554:VAL:HG23	1.88	0.55
1:C:1599:MET:HG3	1:C:1601:MET:HE2	1.88	0.55
1:C:4649:LEU:O	1:C:4653:VAL:HG23	2.06	0.55
1:A:1965:TYR:CE2	1:A:1969:LEU:HD11	2.41	0.55
1:B:445:LEU:HD23	1:B:525:LEU:HD22	1.87	0.55
1:B:2801:ASP:OD1	1:B:2802:LYS:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:984:LEU:O	1:D:988:LEU:HD23	2.06	0.55
1:D:3718:GLU:OE2	1:D:3723:MET:CE	2.55	0.55
1:D:4071:ILE:O	1:D:4074:SER:OG	2.14	0.55
1:D:4090:LYS:HE3	1:D:4112:LEU:HD22	1.88	0.55
1:D:4649:LEU:O	1:D:4653:VAL:HG23	2.06	0.55
1:D:4945:ASP:OD1	1:D:4946:GLN:N	2.40	0.55
1:C:445:LEU:HD23	1:C:525:LEU:HD22	1.87	0.55
1:C:988:LEU:CB	1:C:1039:LEU:HD21	2.37	0.55
1:C:1965:TYR:CE2	1:C:1969:LEU:HD11	2.41	0.55
1:A:3321:ARG:O	1:A:3324:VAL:CG2	2.50	0.55
1:B:722:TRP:CZ2	1:B:727:ALA:HB2	2.42	0.55
1:B:3383:ALA:H	1:B:3384:LYS:NZ	2.04	0.55
1:B:3383:ALA:N	1:B:3384:LYS:NZ	2.54	0.55
1:D:3947:GLY:O	1:D:3951:PHE:HD2	1.90	0.55
1:C:256:ALA:HB2	1:C:477:LEU:HD12	1.89	0.55
1:C:2790:MET:SD	1:C:2791:LEU:HD22	2.47	0.55
1:C:3321:ARG:O	1:C:3324:VAL:CG2	2.50	0.55
1:B:1599:MET:CG	1:B:1601:MET:HE2	2.37	0.55
1:D:35:LEU:HD23	1:D:51:PRO:HA	1.87	0.55
1:D:2111:VAL:HG12	1:D:2113:SER:H	1.72	0.55
1:D:2790:MET:SD	1:D:2791:LEU:HD22	2.47	0.55
1:C:722:TRP:CZ2	1:C:727:ALA:HB2	2.42	0.55
1:C:3628:ARG:HG3	1:C:3631:ALA:HB3	1.89	0.55
1:A:2497:ASP:OD1	1:A:2498:HIS:N	2.39	0.55
1:A:3628:ARG:HG3	1:A:3631:ALA:HB3	1.89	0.55
1:A:4204:GLN:HB3	1:A:4245:MET:HG2	1.88	0.55
1:B:1748:PHE:HB3	1:B:1758:ARG:HG2	1.88	0.55
1:D:256:ALA:HB2	1:D:477:LEU:HD12	1.89	0.55
1:D:3531:ASP:OD1	1:D:3532:LEU:N	2.37	0.55
1:D:3933:PHE:HE2	1:D:3951:PHE:CZ	2.18	0.55
1:D:4204:GLN:HB3	1:D:4245:MET:HG2	1.88	0.55
1:C:647:ASN:ND2	1:C:820:ARG:O	2.38	0.55
1:A:4782:VAL:O	1:A:4785:THR:OG1	2.23	0.54
1:A:4827:LEU:O	1:A:4831:THR:HG23	2.07	0.54
1:B:1965:TYR:CE2	1:B:1969:LEU:HD11	2.41	0.54
1:D:1748:PHE:HB3	1:D:1758:ARG:HG2	1.88	0.54
1:D:3321:ARG:O	1:D:3324:VAL:CG2	2.50	0.54
1:D:3383:ALA:N	1:D:3384:LYS:NZ	2.54	0.54
1:D:3847:PHE:HZ	1:D:3937:TYR:HH	1.54	0.54
1:C:2974:ILE:O	1:C:2978:GLU:OE1	2.24	0.54
1:C:3110:LEU:HD23	1:C:3183:VAL:HG22	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4945:ASP:OD1	1:A:4946:GLN:N	2.40	0.54
1:B:3947:GLY:O	1:B:3951:PHE:HD2	1.90	0.54
1:D:988:LEU:CB	1:D:1039:LEU:HD21	2.37	0.54
1:C:3957:VAL:O	1:C:3961:VAL:HG23	2.06	0.54
1:B:1424:PRO:O	1:B:1428:LEU:HD23	2.08	0.54
1:B:2785:LEU:HD23	1:B:2785:LEU:O	2.08	0.54
1:D:1599:MET:HG3	1:D:1601:MET:HE2	1.88	0.54
1:D:4827:LEU:O	1:D:4831:THR:HG23	2.07	0.54
1:C:4945:ASP:OD1	1:C:4946:GLN:N	2.40	0.54
1:A:647:ASN:ND2	1:A:820:ARG:O	2.38	0.54
1:A:2111:VAL:HG12	1:A:2113:SER:H	1.72	0.54
1:B:2434:GLY:O	1:B:2508:ARG:NE	2.34	0.54
1:D:3957:VAL:O	1:D:3961:VAL:HG23	2.06	0.54
1:C:3383:ALA:N	1:C:3384:LYS:NZ	2.54	0.54
1:C:3383:ALA:H	1:C:3384:LYS:NZ	2.05	0.54
1:C:3531:ASP:OD1	1:C:3532:LEU:N	2.37	0.54
1:A:722:TRP:CZ2	1:A:727:ALA:HB2	2.42	0.54
1:A:988:LEU:CB	1:A:1039:LEU:HD21	2.37	0.54
1:A:1280:GLN:O	1:A:1281:ASN:OD1	2.26	0.54
1:A:2229:VAL:CG1	1:A:2267:MET:HE1	2.31	0.54
1:B:988:LEU:CB	1:B:1039:LEU:HD21	2.37	0.54
1:B:3628:ARG:HG3	1:B:3631:ALA:HB3	1.89	0.54
1:D:1448:VAL:HG22	1:D:1554:VAL:HG23	1.88	0.54
1:D:2434:GLY:O	1:D:2508:ARG:NE	2.34	0.54
1:C:2026:ASP:OD1	1:C:2027:ILE:N	2.40	0.54
1:C:3718:GLU:OE2	1:C:3723:MET:CE	2.55	0.54
1:A:2635:GLU:O	1:A:2638:LYS:NZ	2.40	0.54
1:A:2785:LEU:O	1:A:2785:LEU:HD23	2.08	0.54
1:B:2026:ASP:OD1	1:B:2027:ILE:N	2.40	0.54
1:B:2234:ARG:O	1:B:2238:TYR:HD2	1.91	0.54
1:B:2790:MET:SD	1:B:2791:LEU:HD22	2.47	0.54
1:C:317:ARG:NH2	1:C:321:GLU:O	2.38	0.54
1:A:1748:PHE:HB3	1:A:1758:ARG:HG2	1.88	0.54
1:A:2234:ARG:O	1:A:2238:TYR:HD2	1.91	0.54
1:A:3383:ALA:N	1:A:3384:LYS:NZ	2.54	0.54
1:A:4821:LYS:O	1:A:4825:THR:HG23	2.08	0.54
1:C:1018:ASN:CB	1:C:1021:LEU:HD23	2.38	0.54
1:C:1280:GLN:O	1:C:1281:ASN:OD1	2.26	0.54
1:C:2234:ARG:O	1:C:2238:TYR:HD2	1.91	0.54
1:A:2790:MET:SD	1:A:2791:LEU:HD22	2.47	0.54
1:A:3110:LEU:HD23	1:A:3183:VAL:HG22	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4139:ILE:O	1:B:4143:VAL:HG23	2.08	0.54
1:D:2234:ARG:O	1:D:2238:TYR:HD2	1.91	0.54
1:C:1424:PRO:O	1:C:1428:LEU:HD23	2.08	0.54
1:C:2707:ALA:HB1	1:C:3009:TYR:CD1	2.43	0.54
1:C:4584:ASP:OD1	1:C:4585:SER:N	2.41	0.54
1:C:4827:LEU:O	1:C:4831:THR:HG23	2.07	0.54
1:A:1599:MET:CG	1:A:1601:MET:HE2	2.37	0.54
1:B:734:GLY:O	1:B:736:HIS:ND1	2.35	0.54
1:B:4545:GLU:OE2	1:B:4548:ARG:NH2	2.41	0.54
1:B:4584:ASP:OD1	1:B:4585:SER:N	2.41	0.54
1:B:4651:THR:OG1	1:B:4803:HIS:NE2	2.33	0.54
1:D:961:MET:HE1	1:D:965:TYR:O	2.08	0.54
1:C:4139:ILE:O	1:C:4143:VAL:HG23	2.08	0.54
1:C:4573:ILE:HG23	1:C:4643:LEU:HD11	1.90	0.54
1:A:1018:ASN:CB	1:A:1021:LEU:HD23	2.38	0.54
1:A:1424:PRO:O	1:A:1428:LEU:HD23	2.08	0.54
1:B:4217:PHE:O	1:B:4221:VAL:HG22	2.08	0.54
1:B:4945:ASP:OD1	1:B:4946:GLN:N	2.40	0.54
1:D:2707:ALA:HB1	1:D:3009:TYR:CD1	2.43	0.54
1:D:2785:LEU:HD23	1:D:2785:LEU:O	2.08	0.54
1:D:4139:ILE:O	1:D:4143:VAL:HG23	2.08	0.54
1:D:4584:ASP:OD1	1:D:4585:SER:N	2.41	0.54
1:D:4821:LYS:O	1:D:4825:THR:HG23	2.08	0.54
1:C:1999:ARG:O	1:C:3638:MET:HE3	2.07	0.54
1:C:2635:GLU:O	1:C:2638:LYS:NZ	2.40	0.54
1:C:4821:LYS:O	1:C:4825:THR:HG23	2.08	0.54
1:A:688:LEU:HD11	1:A:775:GLY:CA	2.39	0.53
1:A:4545:GLU:OE2	1:A:4548:ARG:NH2	2.41	0.53
1:B:4759:ASP:O	1:B:4761:PRO:HD3	2.08	0.53
1:B:4821:LYS:O	1:B:4825:THR:HG23	2.08	0.53
1:B:4827:LEU:O	1:B:4831:THR:HG23	2.07	0.53
1:D:1018:ASN:CB	1:D:1021:LEU:HD23	2.38	0.53
1:D:2930:LEU:HD12	1:D:2930:LEU:N	2.23	0.53
1:D:4573:ILE:HG23	1:D:4643:LEU:HD11	1.90	0.53
1:C:2785:LEU:O	1:C:2785:LEU:HD23	2.08	0.53
1:A:3718:GLU:OE2	1:A:3723:MET:CE	2.55	0.53
1:D:3110:LEU:HD23	1:D:3183:VAL:HG22	1.89	0.53
1:D:4759:ASP:O	1:D:4761:PRO:HD3	2.08	0.53
1:B:2928:LYS:C	1:B:2932:MET:SD	2.87	0.53
1:B:3321:ARG:O	1:B:3324:VAL:CG2	2.50	0.53
1:B:4754:ASN:OD1	1:B:4755:GLU:N	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1999:ARG:O	1:D:3638:MET:HE3	2.07	0.53
1:D:2026:ASP:OD1	1:D:2027:ILE:N	2.40	0.53
1:C:864:PRO:HD2	1:C:867:LEU:HD12	1.90	0.53
1:C:2111:VAL:HG12	1:C:2113:SER:H	1.72	0.53
1:C:4217:PHE:O	1:C:4221:VAL:HG22	2.08	0.53
1:A:2707:ALA:HB1	1:A:3009:TYR:CD1	2.43	0.53
1:A:4759:ASP:O	1:A:4761:PRO:HD3	2.08	0.53
1:B:965:TYR:O	1:B:965:TYR:CG	2.57	0.53
1:D:4217:PHE:O	1:D:4221:VAL:HG22	2.08	0.53
1:D:4545:GLU:OE2	1:D:4548:ARG:NH2	2.41	0.53
1:C:961:MET:HE1	1:C:965:TYR:O	2.08	0.53
1:A:961:MET:HE1	1:A:965:TYR:O	2.08	0.53
1:A:2668:SER:O	1:A:2669:GLU:CB	2.57	0.53
1:A:2928:LYS:C	1:A:2932:MET:SD	2.87	0.53
1:A:4584:ASP:OD1	1:A:4585:SER:N	2.41	0.53
1:A:4754:ASN:OD1	1:A:4755:GLU:N	2.38	0.53
1:B:1110:ARG:NH2	1:B:1112:ASP:OD2	2.42	0.53
1:B:3673:MET:HE2	1:B:3725:TYR:CE1	2.42	0.53
1:A:864:PRO:HD2	1:A:867:LEU:HD12	1.90	0.53
1:A:2390:PRO:O	1:A:2391:ALA:HB3	2.09	0.53
1:C:965:TYR:O	1:C:965:TYR:CG	2.57	0.53
1:C:2928:LYS:C	1:C:2932:MET:SD	2.87	0.53
1:C:3170:CYS:HA	1:C:3243:ILE:HD11	1.91	0.53
1:B:3170:CYS:HA	1:B:3243:ILE:HD11	1.90	0.53
1:D:2390:PRO:O	1:D:2391:ALA:HB3	2.09	0.53
1:C:3383:ALA:H	1:C:3384:LYS:HZ2	1.56	0.53
1:A:2930:LEU:HD12	1:A:2930:LEU:N	2.23	0.53
1:B:601:ASP:OD1	1:B:1665:HIS:ND1	2.38	0.53
1:B:2111:VAL:HG12	1:B:2113:SER:H	1.72	0.53
1:B:2707:ALA:HB1	1:B:3009:TYR:CD1	2.43	0.53
1:B:4645:CYS:O	1:B:4649:LEU:HD13	2.09	0.53
1:B:4973:HIS:O	1:B:4977:THR:HG23	2.09	0.53
1:D:2635:GLU:O	1:D:2638:LYS:NZ	2.40	0.53
1:C:1039:LEU:O	1:C:1043:VAL:HG23	2.09	0.53
1:C:1599:MET:CG	1:C:1601:MET:HE2	2.39	0.53
1:C:2668:SER:O	1:C:2669:GLU:CB	2.57	0.53
1:C:4545:GLU:OE2	1:C:4548:ARG:NH2	2.41	0.53
1:A:174:VAL:HG12	1:D:2452:ARG:HH12	1.74	0.53
2:F:105:LYS:NZ	2:F:107:GLU:OE2	2.42	0.53
1:B:2390:PRO:O	1:B:2391:ALA:HB3	2.09	0.53
1:D:1039:LEU:O	1:D:1043:VAL:HG23	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1424:PRO:O	1:D:1428:LEU:HD23	2.08	0.53
1:D:1480:GLN:O	1:D:1480:GLN:HG2	2.09	0.53
1:D:2928:LYS:C	1:D:2932:MET:SD	2.87	0.53
1:C:2930:LEU:HD12	1:C:2930:LEU:N	2.23	0.53
1:C:4586:PRO:CD	1:C:4629:TYR:HE2	2.22	0.53
1:A:4645:CYS:O	1:A:4649:LEU:HD13	2.09	0.53
1:D:688:LEU:HD11	1:D:775:GLY:CA	2.39	0.53
1:D:1280:GLN:O	1:D:1281:ASN:OD1	2.26	0.53
1:D:1990:GLU:HG3	1:D:1994:ARG:HE	1.74	0.53
1:D:2584[A]:HIS:HD2	1:D:2625:ARG:CZ	2.22	0.53
1:D:4686:LEU:O	1:D:4691:GLN:N	2.36	0.53
1:C:296:ASP:OD1	1:C:297:GLN:N	2.42	0.53
1:C:688:LEU:HD11	1:C:775:GLY:CA	2.39	0.53
1:C:4645:CYS:O	1:C:4649:LEU:HD13	2.09	0.53
1:A:2026:ASP:OD1	1:A:2027:ILE:N	2.40	0.52
1:A:4217:PHE:O	1:A:4221:VAL:HG22	2.08	0.52
1:B:2604:GLU:HB3	1:B:2608:MET:HE1	1.91	0.52
1:B:4782:VAL:O	1:B:4785:THR:OG1	2.23	0.52
1:D:647:ASN:ND2	1:D:820:ARG:O	2.38	0.52
1:C:2165:LEU:HD21	1:C:2177:LEU:HD23	1.92	0.52
1:C:2390:PRO:O	1:C:2391:ALA:HB3	2.09	0.52
1:A:1497:GLY:O	1:A:1501:VAL:HG23	2.10	0.52
1:A:1990:GLU:HG3	1:A:1994:ARG:HE	1.74	0.52
1:A:3946:GLN:NE2	1:A:3949:ARG:HE	2.08	0.52
1:A:4835:LYS:O	1:A:4839:MET:HG2	2.10	0.52
1:A:4973:HIS:O	1:A:4977:THR:HG23	2.09	0.52
2:G:105:LYS:NZ	2:G:107:GLU:OE2	2.42	0.52
1:B:688:LEU:HD11	1:B:775:GLY:CA	2.39	0.52
1:B:864:PRO:HD2	1:B:867:LEU:HD12	1.90	0.52
1:B:1480:GLN:O	1:B:1480:GLN:HG2	2.09	0.52
1:B:1497:GLY:O	1:B:1501:VAL:HG23	2.10	0.52
1:B:2584[A]:HIS:HD2	1:B:2625:ARG:CZ	2.22	0.52
1:B:3946:GLN:NE2	1:B:3949:ARG:HE	2.08	0.52
1:D:3321:ARG:NH1	1:D:3321:ARG:CB	2.66	0.52
1:C:4759:ASP:O	1:C:4761:PRO:HD3	2.08	0.52
1:A:296:ASP:OD1	1:A:297:GLN:N	2.42	0.52
1:A:2165:LEU:HD21	1:A:2177:LEU:HD23	1.92	0.52
1:A:2584[A]:HIS:HD2	1:A:2625:ARG:CZ	2.22	0.52
1:A:4139:ILE:O	1:A:4143:VAL:HG23	2.08	0.52
2:F:6:THR:HG23	2:F:6:THR:O	2.10	0.52
1:B:1280:GLN:O	1:B:1281:ASN:OD1	2.26	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3825:GLU:OE1	1:D:3825:GLU:N	2.43	0.52
1:C:2584[A]:HIS:HD2	1:C:2625:ARG:CZ	2.22	0.52
1:C:5034:ASP:OD1	1:C:5035:GLN:N	2.43	0.52
1:A:2822:THR:OG1	1:A:2938:THR:OG1	2.28	0.52
2:H:105:LYS:NZ	2:H:107:GLU:OE2	2.42	0.52
2:G:6:THR:HG23	2:G:6:THR:O	2.10	0.52
1:B:2930:LEU:N	1:B:2930:LEU:HD12	2.23	0.52
1:D:831:ARG:HE	1:D:840:VAL:HG21	1.75	0.52
1:D:864:PRO:HD2	1:D:867:LEU:HD12	1.90	0.52
1:D:2165:LEU:HD21	1:D:2177:LEU:HD23	1.92	0.52
1:C:1480:GLN:HG2	1:C:1480:GLN:O	2.09	0.52
1:C:2518:LEU:O	1:C:2522:LEU:HD13	2.10	0.52
1:C:3284:TRP:O	1:C:3305:THR:HG21	2.10	0.52
1:C:3994:HIS:CE1	1:C:3998:HIS:CE1	2.98	0.52
1:A:818:ARG:NH1	1:A:1029:GLU:OE2	2.40	0.52
2:E:105:LYS:NZ	2:E:107:GLU:OE2	2.42	0.52
1:B:961:MET:HE1	1:B:965:TYR:O	2.10	0.52
1:D:3994:HIS:CE1	1:D:3998:HIS:CE1	2.98	0.52
1:D:4586:PRO:CD	1:D:4629:TYR:HE2	2.22	0.52
1:D:4782:VAL:O	1:D:4785:THR:OG1	2.23	0.52
1:C:867:LEU:HA	1:C:870:ILE:HG22	1.92	0.52
1:C:1110:ARG:NH2	1:C:1112:ASP:OD2	2.42	0.52
1:C:1676:LEU:HB3	1:C:2167:ILE:HD12	1.92	0.52
1:C:4973:HIS:O	1:C:4977:THR:HG23	2.09	0.52
1:A:867:LEU:HA	1:A:870:ILE:HG22	1.92	0.52
1:A:1480:GLN:O	1:A:1480:GLN:HG2	2.09	0.52
1:A:2518:LEU:O	1:A:2522:LEU:HD13	2.10	0.52
1:A:3673:MET:HE2	1:A:3725:TYR:CE1	2.43	0.52
1:B:2452:ARG:HH12	1:C:174:VAL:HG12	1.75	0.52
1:B:2668:SER:O	1:B:2669:GLU:CB	2.57	0.52
1:B:3445:TRP:O	1:B:3452:LYS:NZ	2.34	0.52
1:B:4573:ILE:HG23	1:B:4643:LEU:HD11	1.90	0.52
1:B:4586:PRO:CD	1:B:4629:TYR:HE2	2.22	0.52
1:D:590:LEU:HD21	1:D:599:VAL:HB	1.92	0.52
1:D:1497:GLY:O	1:D:1501:VAL:HG23	2.10	0.52
1:C:2522:LEU:HD23	1:C:2582:MET:HE2	1.92	0.52
1:C:5000:GLU:OE2	1:C:5011:TRP:NE1	2.43	0.52
1:A:3825:GLU:OE1	1:A:3825:GLU:N	2.43	0.52
1:A:4573:ILE:HG23	1:A:4643:LEU:HD11	1.90	0.52
1:B:1018:ASN:CB	1:B:1021:LEU:HD23	2.38	0.52
1:B:2165:LEU:HD21	1:B:2177:LEU:HD23	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:296:ASP:OD1	1:D:297:GLN:N	2.42	0.52
1:D:1110:ARG:NH2	1:D:1112:ASP:OD2	2.42	0.52
1:D:1599:MET:CG	1:D:1601:MET:HE2	2.39	0.52
1:D:2518:LEU:O	1:D:2522:LEU:HD13	2.10	0.52
1:D:3170:CYS:HA	1:D:3243:ILE:HD11	1.91	0.52
1:D:3284:TRP:O	1:D:3305:THR:HG21	2.10	0.52
1:C:37:LEU:HD11	1:C:47:CYS:HB3	1.92	0.52
1:A:3170:CYS:HA	1:A:3243:ILE:HD11	1.90	0.52
1:B:37:LEU:HD11	1:B:47:CYS:HB3	1.92	0.52
1:B:5034:ASP:OD1	1:B:5035:GLN:N	2.43	0.52
1:D:867:LEU:HA	1:D:870:ILE:HG22	1.92	0.52
1:D:4645:CYS:O	1:D:4649:LEU:HD13	2.09	0.52
1:D:4835:LYS:O	1:D:4839:MET:HG2	2.10	0.52
1:C:1497:GLY:O	1:C:1501:VAL:HG23	2.10	0.52
1:C:3478:MET:O	1:C:3478:MET:HG2	2.10	0.52
1:A:37:LEU:HD11	1:A:47:CYS:HB3	1.92	0.52
1:A:3284:TRP:O	1:A:3305:THR:HG21	2.10	0.52
1:B:1676:LEU:HB3	1:B:2167:ILE:HD12	1.92	0.52
1:B:3435:PHE:CD2	1:B:3524:MET:HE2	2.45	0.52
1:D:3097:GLU:O	1:D:3100:SER:OG	2.21	0.52
1:D:3383:ALA:H	1:D:3384:LYS:HZ2	1.58	0.52
1:D:5034:ASP:OD1	1:D:5035:GLN:N	2.43	0.52
1:A:831:ARG:HE	1:A:840:VAL:HG21	1.75	0.52
1:A:1110:ARG:NH2	1:A:1112:ASP:OD2	2.42	0.52
1:A:3994:HIS:CE1	1:A:3998:HIS:CE1	2.98	0.52
1:B:3825:GLU:OE1	1:B:3825:GLU:N	2.43	0.52
1:D:239:ASP:OD1	1:D:240:ASP:N	2.43	0.52
1:D:3933:PHE:CD2	1:D:3951:PHE:CZ	2.98	0.52
1:D:5000:GLU:OE2	1:D:5011:TRP:NE1	2.43	0.52
1:A:1676:LEU:HB3	1:A:2167:ILE:HD12	1.92	0.51
1:A:4944:ARG:NH1	1:B:4942:GLU:OE1	2.41	0.51
1:A:4956:THR:O	1:A:4965:SER:N	2.43	0.51
1:B:867:LEU:HA	1:B:870:ILE:HG22	1.92	0.51
1:B:2635:GLU:O	1:B:2638:LYS:NZ	2.40	0.51
1:B:3284:TRP:O	1:B:3305:THR:HG21	2.10	0.51
1:D:37:LEU:HD11	1:D:47:CYS:HB3	1.92	0.51
1:D:2668:SER:O	1:D:2669:GLU:CB	2.57	0.51
1:D:3478:MET:O	1:D:3478:MET:HG2	2.10	0.51
1:C:4680:LYS:O	1:C:4685:GLY:N	2.42	0.51
1:A:965:TYR:O	1:A:965:TYR:CG	2.57	0.51
1:A:1995:THR:HG22	1:A:1999:ARG:HG2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3187:ARG:HG3	1:A:3272:ILE:HD11	1.92	0.51
1:A:3847:PHE:HZ	1:A:3937:TYR:HH	1.56	0.51
2:E:6:THR:HG23	2:E:6:THR:O	2.10	0.51
2:H:6:THR:HG23	2:H:6:THR:O	2.10	0.51
1:B:239:ASP:OD1	1:B:240:ASP:N	2.43	0.51
1:B:717:ASP:OD1	1:B:720:HIS:N	2.41	0.51
1:B:2229:VAL:CG1	1:B:2267:MET:HE1	2.35	0.51
1:B:3994:HIS:CE1	1:B:3998:HIS:CE1	2.98	0.51
1:B:5000:GLU:OE2	1:B:5011:TRP:NE1	2.43	0.51
1:D:818:ARG:NH1	1:D:1029:GLU:OE2	2.40	0.51
1:D:3946:GLN:NE2	1:D:3949:ARG:HE	2.08	0.51
1:D:4680:LYS:O	1:D:4685:GLY:N	2.42	0.51
1:C:717:ASP:OD1	1:C:720:HIS:N	2.41	0.51
1:C:3616:LYS:HA	1:C:3619:VAL:CG2	2.41	0.51
1:C:3825:GLU:N	1:C:3825:GLU:OE1	2.43	0.51
1:C:4978:HIS:CE1	1:C:4983:HIS:ND1	2.78	0.51
1:A:3354:LEU:HD11	1:A:3434:LEU:HD22	1.93	0.51
2:E:38:SER:HB3	2:E:41:ASP:OD1	2.11	0.51
1:B:647:ASN:ND2	1:B:820:ARG:O	2.38	0.51
1:B:3354:LEU:HD11	1:B:3434:LEU:HD22	1.93	0.51
1:B:3435:PHE:CD2	1:B:3524:MET:CE	2.94	0.51
1:D:174:VAL:HG12	1:C:2452:ARG:HH12	1.74	0.51
1:D:975:VAL:HG13	1:D:1047:LEU:HD23	1.92	0.51
1:D:2490:MET:SD	1:D:2545:GLU:OE2	2.69	0.51
1:D:3354:LEU:HD11	1:D:3434:LEU:HD22	1.93	0.51
1:C:831:ARG:HE	1:C:840:VAL:HG21	1.75	0.51
1:C:3187:ARG:HG3	1:C:3272:ILE:HD11	1.92	0.51
1:C:3699:HIS:CE1	1:C:3703:LEU:HD11	2.46	0.51
1:C:3847:PHE:HZ	1:C:3937:TYR:HH	1.58	0.51
1:C:4870:ASP:OD1	1:C:4870:ASP:N	2.44	0.51
1:A:3282:PRO:HG3	1:A:3345:ILE:HG22	1.92	0.51
1:A:3616:LYS:HA	1:A:3619:VAL:CG2	2.40	0.51
1:A:3933:PHE:CD2	1:A:3951:PHE:CZ	2.98	0.51
1:A:4651:THR:OG1	1:A:4803:HIS:NE2	2.33	0.51
2:G:38:SER:HB3	2:G:41:ASP:OD1	2.11	0.51
1:B:3282:PRO:HG3	1:B:3345:ILE:HG22	1.92	0.51
1:B:3699:HIS:CE1	1:B:3703:LEU:HD11	2.46	0.51
1:B:4835:LYS:O	1:B:4839:MET:HG2	2.10	0.51
1:D:869:ARG:NH2	1:D:1051:TYR:OH	2.44	0.51
1:D:3616:LYS:HA	1:D:3619:VAL:CG2	2.40	0.51
1:D:4978:HIS:CE1	1:D:4983:HIS:ND1	2.78	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:239:ASP:OD1	1:C:240:ASP:N	2.43	0.51
1:C:2822:THR:OG1	1:C:2938:THR:OG1	2.28	0.51
1:C:3435:PHE:CD2	1:C:3524:MET:CE	2.94	0.51
1:A:239:ASP:OD1	1:A:240:ASP:N	2.43	0.51
1:A:5034:ASP:OD1	1:A:5035:GLN:N	2.43	0.51
1:B:2518:LEU:O	1:B:2522:LEU:HD13	2.10	0.51
1:B:3616:LYS:HA	1:B:3619:VAL:CG2	2.40	0.51
1:A:734:GLY:O	1:A:736:HIS:ND1	2.35	0.51
1:A:4586:PRO:CD	1:A:4629:TYR:HE2	2.22	0.51
1:B:3383:ALA:N	1:B:3384:LYS:HZ2	2.08	0.51
1:B:3733:CYS:SG	1:B:3770:LEU:HD12	2.51	0.51
1:D:2822:THR:OG1	1:D:2938:THR:OG1	2.28	0.51
1:D:3733:CYS:SG	1:D:3770:LEU:HD12	2.51	0.51
1:D:4956:THR:O	1:D:4965:SER:N	2.43	0.51
1:D:4989:MET:SD	1:D:4993:MET:SD	3.08	0.51
1:C:359:TYR:HD2	1:C:361:ALA:H	1.58	0.51
1:C:3282:PRO:HG3	1:C:3345:ILE:HG22	1.92	0.51
1:C:3946:GLN:NE2	1:C:3949:ARG:HE	2.08	0.51
1:A:1039:LEU:O	1:A:1043:VAL:HG23	2.09	0.51
1:A:3478:MET:O	1:A:3478:MET:HG2	2.10	0.51
1:A:3699:HIS:CE1	1:A:3703:LEU:HD11	2.46	0.51
1:B:296:ASP:OD1	1:B:297:GLN:N	2.42	0.51
1:B:590:LEU:HD21	1:B:599:VAL:HB	1.92	0.51
1:B:1990:GLU:HG3	1:B:1994:ARG:HE	1.74	0.51
1:B:2822:THR:OG1	1:B:2938:THR:OG1	2.28	0.51
1:B:3257:ALA:O	1:B:3321:ARG:NH2	2.44	0.51
1:B:3258:GLU:HA	1:B:3321:ARG:NH2	2.26	0.51
1:D:4627:MET:SD	1:D:4628:VAL:O	2.69	0.51
1:D:4870:ASP:OD1	1:D:4870:ASP:N	2.44	0.51
1:D:4973:HIS:O	1:D:4977:THR:HG23	2.09	0.51
1:C:590:LEU:HD21	1:C:599:VAL:HB	1.92	0.51
1:C:869:ARG:NH2	1:C:1051:TYR:OH	2.44	0.51
1:C:2481:LYS:HD2	1:C:2481:LYS:O	2.11	0.51
1:C:4989:MET:SD	1:C:4993:MET:SD	3.08	0.51
1:A:927:GLU:O	1:A:931:THR:HG23	2.11	0.51
1:A:3435:PHE:CD2	1:A:3524:MET:CE	2.94	0.51
1:A:3733:CYS:SG	1:A:3770:LEU:HD12	2.51	0.51
1:A:3933:PHE:HE2	1:A:3951:PHE:CZ	2.18	0.51
1:A:4627:MET:SD	1:A:4628:VAL:O	2.69	0.51
1:B:869:ARG:NH2	1:B:1051:TYR:OH	2.44	0.51
1:B:1039:LEU:O	1:B:1043:VAL:HG23	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3413:ILE:HG23	1:B:3516:LYS:HD3	1.93	0.51
1:D:3699:HIS:CE1	1:D:3703:LEU:HD11	2.45	0.51
1:C:3354:LEU:HD11	1:C:3434:LEU:HD22	1.93	0.51
1:C:4182:GLU:OE1	1:C:4983:HIS:NE2	2.44	0.51
1:C:4835:LYS:O	1:C:4839:MET:HG2	2.10	0.51
1:A:2452:ARG:HH12	1:B:174:VAL:HG12	1.76	0.51
1:A:3258:GLU:HA	1:A:3321:ARG:NH2	2.26	0.51
1:A:4686:LEU:O	1:A:4691:GLN:N	2.36	0.51
1:A:5000:GLU:OE2	1:A:5011:TRP:NE1	2.43	0.51
2:H:38:SER:HB3	2:H:41:ASP:OD1	2.11	0.51
1:B:3933:PHE:CD2	1:B:3951:PHE:CZ	2.98	0.51
1:B:4978:HIS:CE1	1:B:4983:HIS:ND1	2.78	0.51
1:D:883:ALA:HB1	1:D:907:LEU:HD13	1.93	0.51
1:D:1995:THR:HG22	1:D:1999:ARG:HG2	1.93	0.51
1:D:2604:GLU:HB3	1:D:2608:MET:HE1	1.93	0.51
1:D:2761:TYR:C	1:D:2765:LYS:NZ	2.65	0.51
1:C:2490:MET:SD	1:C:2545:GLU:OE2	2.69	0.51
1:C:4956:THR:O	1:C:4965:SER:N	2.43	0.51
1:A:590:LEU:HD21	1:A:599:VAL:HB	1.92	0.51
1:A:975:VAL:HG13	1:A:1047:LEU:HD23	1.92	0.51
1:A:1171:SER:HG	1:A:1175:SER:HG	1.27	0.51
1:A:4989:MET:SD	1:A:4993:MET:SD	3.08	0.51
1:B:2198:MET:SD	1:B:2203:MET:SD	3.09	0.51
1:B:2977:LEU:CD2	1:B:3056:LEU:HD22	2.42	0.51
1:B:3478:MET:HG2	1:B:3478:MET:O	2.10	0.51
1:B:4956:THR:O	1:B:4965:SER:N	2.43	0.51
1:D:2198:MET:SD	1:D:2203:MET:SD	3.09	0.51
1:C:648:ILE:HD13	1:C:811:CYS:HB3	1.93	0.51
1:A:869:ARG:NH2	1:A:1051:TYR:OH	2.44	0.50
2:H:11:ASP:OD2	2:H:14:THR:OG1	2.14	0.50
1:D:3187:ARG:HG3	1:D:3272:ILE:HD11	1.92	0.50
1:C:975:VAL:HG13	1:C:1047:LEU:HD23	1.92	0.50
1:C:2198:MET:SD	1:C:2203:MET:SD	3.09	0.50
1:C:3257:ALA:O	1:C:3321:ARG:NH2	2.44	0.50
1:A:359:TYR:HD2	1:A:361:ALA:H	1.58	0.50
1:A:2309:SER:OG	1:A:2314:LEU:HD21	2.11	0.50
1:A:2490:MET:SD	1:A:2545:GLU:OE2	2.69	0.50
1:B:927:GLU:O	1:B:931:THR:HG23	2.11	0.50
1:B:4989:MET:SD	1:B:4993:MET:SD	3.08	0.50
1:D:988:LEU:HB3	1:D:1039:LEU:HD21	1.93	0.50
1:D:2309:SER:OG	1:D:2314:LEU:HD21	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2974:ILE:CD1	1:D:3049:LEU:HD12	2.42	0.50
1:D:3258:GLU:HA	1:D:3321:ARG:NH2	2.26	0.50
1:D:3435:PHE:CD2	1:D:3524:MET:HE1	2.46	0.50
1:C:927:GLU:O	1:C:931:THR:HG23	2.11	0.50
1:C:1990:GLU:HG3	1:C:1994:ARG:HE	1.74	0.50
1:C:2604:GLU:HB3	1:C:2608:MET:HE1	1.92	0.50
1:C:3733:CYS:SG	1:C:3770:LEU:HD12	2.51	0.50
1:C:4071:ILE:O	1:C:4074:SER:OG	2.14	0.50
1:A:2604:GLU:HB3	1:A:2608:MET:HE1	1.92	0.50
1:A:3257:ALA:O	1:A:3321:ARG:NH2	2.44	0.50
1:A:4978:HIS:CE1	1:A:4983:HIS:ND1	2.78	0.50
1:B:831:ARG:HE	1:B:840:VAL:HG21	1.75	0.50
1:B:883:ALA:HB1	1:B:907:LEU:HD13	1.93	0.50
1:B:941:MET:SD	1:B:1051:TYR:HE1	2.35	0.50
1:B:1995:THR:HG22	1:B:1999:ARG:HG2	1.93	0.50
1:B:2974:ILE:HG13	1:B:2975:ALA:N	2.27	0.50
1:B:4182:GLU:OE1	1:B:4983:HIS:NE2	2.44	0.50
1:D:2229:VAL:HG11	1:D:2267:MET:HE1	1.92	0.50
1:D:3321:ARG:HH11	1:D:3321:ARG:CG	2.13	0.50
1:C:883:ALA:HB1	1:C:907:LEU:HD13	1.93	0.50
1:A:3413:ILE:HG23	1:A:3516:LYS:HD3	1.93	0.50
2:F:38:SER:HB3	2:F:41:ASP:OD1	2.11	0.50
1:B:3299:GLY:O	1:B:3300:ALA:HB2	2.11	0.50
1:D:648:ILE:HD13	1:D:811:CYS:HB3	1.93	0.50
1:D:3382:GLU:CA	1:D:3384:LYS:HZ3	2.24	0.50
1:D:3435:PHE:CD2	1:D:3524:MET:CE	2.94	0.50
1:D:3673:MET:HE2	1:D:3725:TYR:CE1	2.43	0.50
1:C:734:GLY:O	1:C:736:HIS:ND1	2.35	0.50
1:C:3258:GLU:HA	1:C:3321:ARG:NH2	2.26	0.50
1:C:3732:SER:O	1:C:3735:LEU:HG	2.11	0.50
1:A:2761:TYR:C	1:A:2765:LYS:NZ	2.65	0.50
1:B:1143:TRP:CE3	1:B:1149:VAL:HG21	2.47	0.50
1:B:2309:SER:OG	1:B:2314:LEU:HD21	2.11	0.50
1:B:2481:LYS:O	1:B:2481:LYS:HD2	2.11	0.50
1:D:359:TYR:HD2	1:D:361:ALA:H	1.58	0.50
1:D:1676:LEU:HB3	1:D:2167:ILE:HD12	1.92	0.50
1:D:2685:SER:O	1:D:2689:LYS:HG2	2.12	0.50
1:C:2604:GLU:CB	1:C:2608:MET:HE1	2.42	0.50
1:C:3324:VAL:CG1	1:C:3361:THR:HG22	2.41	0.50
1:A:985:VAL:HG22	1:A:1043:VAL:HG21	1.94	0.50
1:A:988:LEU:HB3	1:A:1039:LEU:HD21	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2490:MET:SD	1:B:2545:GLU:OE2	2.69	0.50
1:B:3187:ARG:HG3	1:B:3272:ILE:HD11	1.92	0.50
1:D:985:VAL:HG22	1:D:1043:VAL:HG21	1.94	0.50
1:C:941:MET:SD	1:C:1051:TYR:HE1	2.35	0.50
1:B:3892:CYS:HG	1:B:3899:PHE:HD2	1.58	0.50
1:D:2481:LYS:HD2	1:D:2481:LYS:O	2.11	0.50
1:D:3299:GLY:O	1:D:3300:ALA:HB2	2.11	0.50
1:D:4634:GLU:OE1	1:D:4634:GLU:N	2.45	0.50
1:C:1143:TRP:HZ3	1:C:1149:VAL:HG21	1.74	0.50
1:C:2309:SER:OG	1:C:2314:LEU:HD21	2.11	0.50
1:C:2974:ILE:CD1	1:C:3049:LEU:HD12	2.42	0.50
1:A:568:LEU:HD12	1:A:602:VAL:HG13	1.94	0.50
1:A:2604:GLU:CB	1:A:2608:MET:HE1	2.42	0.50
1:A:2974:ILE:CD1	1:A:3049:LEU:HD12	2.42	0.50
1:A:2977:LEU:CD2	1:A:3056:LEU:HD22	2.42	0.50
1:B:463:GLU:O	1:B:467:LYS:HG2	2.12	0.50
1:B:3732:SER:O	1:B:3735:LEU:HG	2.12	0.50
1:B:4627:MET:SD	1:B:4628:VAL:O	2.69	0.50
1:B:4634:GLU:OE1	1:B:4634:GLU:N	2.45	0.50
1:D:884:LEU:O	1:D:888:GLU:OE1	2.29	0.50
1:D:927:GLU:O	1:D:931:THR:HG23	2.11	0.50
1:D:3282:PRO:HG3	1:D:3345:ILE:HG22	1.92	0.50
1:C:568:LEU:HD12	1:C:602:VAL:HG13	1.94	0.50
1:C:918:ARG:O	1:C:922:LEU:HD23	2.12	0.50
1:C:3299:GLY:O	1:C:3300:ALA:HB2	2.11	0.50
1:A:884:LEU:O	1:A:888:GLU:OE1	2.29	0.50
1:A:3225:ARG:NH2	1:A:3226:GLU:OE2	2.45	0.50
1:A:3319:ILE:C	1:A:3321:ARG:N	2.65	0.50
2:E:24:VAL:HG21	2:E:59:TRP:CZ3	2.47	0.50
1:B:2685:SER:O	1:B:2689:LYS:HG2	2.12	0.50
1:B:3944:GLU:OE2	1:B:3946:GLN:HB2	2.12	0.50
1:D:3257:ALA:O	1:D:3321:ARG:NH2	2.44	0.50
1:D:3732:SER:O	1:D:3735:LEU:HG	2.11	0.50
1:C:404:ILE:HG23	1:C:483:MET:SD	2.52	0.50
1:C:884:LEU:O	1:C:888:GLU:OE1	2.29	0.50
1:C:2142:TYR:HA	1:C:3651:ASN:HD21	1.77	0.50
1:C:2761:TYR:C	1:C:2765:LYS:NZ	2.65	0.50
1:C:3225:ARG:NH2	1:C:3226:GLU:OE2	2.45	0.50
1:A:463:GLU:O	1:A:467:LYS:HG2	2.12	0.49
1:A:883:ALA:HB1	1:A:907:LEU:HD13	1.93	0.49
1:A:2198:MET:SD	1:A:2203:MET:SD	3.09	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2685:SER:O	1:A:2689:LYS:HG2	2.12	0.49
1:A:3732:SER:O	1:A:3735:LEU:HG	2.12	0.49
1:A:4182:GLU:OE1	1:A:4983:HIS:NE2	2.44	0.49
1:B:359:TYR:HD2	1:B:361:ALA:H	1.58	0.49
1:B:918:ARG:O	1:B:922:LEU:HD23	2.12	0.49
1:B:975:VAL:HG13	1:B:1047:LEU:HD23	1.92	0.49
1:B:2142:TYR:HA	1:B:3651:ASN:HD21	1.77	0.49
1:D:463:GLU:O	1:D:467:LYS:HG2	2.12	0.49
1:D:918:ARG:O	1:D:922:LEU:HD23	2.12	0.49
1:D:3413:ILE:HG23	1:D:3516:LYS:HD3	1.93	0.49
1:D:4791:TYR:CZ	1:D:4818:MET:CE	2.95	0.49
1:C:2538:THR:O	1:C:2542:SER:N	2.37	0.49
1:C:2685:SER:O	1:C:2689:LYS:HG2	2.12	0.49
1:A:2481:LYS:HD2	1:A:2481:LYS:O	2.11	0.49
1:A:4860:ARG:NH1	1:D:4630:TYR:OH	2.45	0.49
1:B:2604:GLU:CB	1:B:2608:MET:HE1	2.42	0.49
1:B:2761:TYR:C	1:B:2765:LYS:NZ	2.65	0.49
1:B:3114:LYS:HD2	1:B:3125:VAL:HG21	1.94	0.49
1:D:404:ILE:HG23	1:D:483:MET:SD	2.52	0.49
1:D:1931:LEU:HD13	1:D:1935:VAL:CG1	2.41	0.49
1:C:601:ASP:OD1	1:C:1665:HIS:ND1	2.38	0.49
1:C:3435:PHE:CD2	1:C:3524:MET:HE1	2.46	0.49
1:C:3673:MET:HE1	1:C:3725:TYR:CE1	2.46	0.49
1:C:3933:PHE:CD2	1:C:3951:PHE:CZ	2.98	0.49
1:C:4791:TYR:CZ	1:C:4818:MET:CE	2.96	0.49
1:A:3944:GLU:OE2	1:A:3946:GLN:HB2	2.12	0.49
1:A:4634:GLU:OE1	1:A:4634:GLU:N	2.45	0.49
1:A:4902:GLU:O	1:A:4913:ARG:CZ	2.61	0.49
1:B:26:ALA:N	1:B:32:GLN:OE1	2.46	0.49
1:D:568:LEU:HD12	1:D:602:VAL:HG13	1.94	0.49
1:D:2977:LEU:CD2	1:D:3056:LEU:HD22	2.42	0.49
1:D:3391:GLU:OE2	1:D:3450:ASN:ND2	2.34	0.49
1:C:438:ILE:HG23	1:C:518:ILE:HD11	1.94	0.49
1:C:914:PRO:HB2	1:C:917:GLU:OE1	2.13	0.49
1:C:1143:TRP:CE3	1:C:1149:VAL:HG21	2.47	0.49
1:C:2166:LEU:HD11	1:C:2206:THR:HG23	1.94	0.49
1:C:2974:ILE:HG13	1:C:2975:ALA:N	2.27	0.49
1:C:3660:ALA:O	1:C:3664:THR:OG1	2.17	0.49
1:A:648:ILE:HD13	1:A:811:CYS:HB3	1.93	0.49
1:A:918:ARG:O	1:A:922:LEU:HD23	2.12	0.49
1:A:3382:GLU:CA	1:A:3384:LYS:HZ3	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:568:LEU:HD12	1:B:602:VAL:HG13	1.94	0.49
1:B:3225:ARG:NH2	1:B:3226:GLU:OE2	2.45	0.49
1:B:4680:LYS:O	1:B:4685:GLY:N	2.42	0.49
1:D:21:VAL:HG11	1:D:62:LEU:HD11	1.95	0.49
1:D:717:ASP:OD1	1:D:720:HIS:N	2.41	0.49
1:D:2974:ILE:HG13	1:D:2975:ALA:N	2.27	0.49
1:D:3319:ILE:C	1:D:3321:ARG:N	2.65	0.49
1:D:3944:GLU:OE2	1:D:3946:GLN:HB2	2.12	0.49
1:C:1995:THR:HG22	1:C:1999:ARG:HG2	1.93	0.49
1:C:4627:MET:SD	1:C:4628:VAL:O	2.69	0.49
1:A:404:ILE:HG23	1:A:483:MET:SD	2.52	0.49
1:A:914:PRO:HB2	1:A:917:GLU:OE1	2.13	0.49
1:A:3635:CYS:HA	1:A:3638:MET:CE	2.43	0.49
2:G:3:GLN:NE2	2:G:75:THR:HG21	2.28	0.49
2:F:3:GLN:NE2	2:F:75:THR:HG21	2.28	0.49
1:B:884:LEU:O	1:B:888:GLU:OE1	2.29	0.49
1:B:985:VAL:HG22	1:B:1043:VAL:HG21	1.94	0.49
1:B:2974:ILE:CD1	1:B:3049:LEU:HD12	2.42	0.49
1:D:2761:TYR:C	1:D:2765:LYS:HZ3	2.15	0.49
1:C:2977:LEU:CD2	1:C:3056:LEU:HD22	2.42	0.49
1:C:4634:GLU:N	1:C:4634:GLU:OE1	2.45	0.49
1:A:26:ALA:N	1:A:32:GLN:OE1	2.46	0.49
1:A:3114:LYS:HD2	1:A:3125:VAL:HG21	1.94	0.49
1:A:3299:GLY:O	1:A:3300:ALA:HB2	2.11	0.49
1:A:3382:GLU:HA	1:A:3384:LYS:HZ3	1.77	0.49
1:A:4870:ASP:OD1	1:A:4870:ASP:N	2.44	0.49
1:B:156:GLN:OE1	1:B:156:GLN:CA	2.61	0.49
1:B:404:ILE:HG23	1:B:483:MET:SD	2.52	0.49
1:B:2186:MET:HE2	1:B:2234:ARG:C	2.33	0.49
1:B:4930:ALA:HA	1:B:4933:GLN:OE1	2.13	0.49
1:D:941:MET:SD	1:D:1051:TYR:HE1	2.35	0.49
1:D:2142:TYR:HA	1:D:3651:ASN:HD21	1.77	0.49
1:D:3445:TRP:O	1:D:3452:LYS:NZ	2.34	0.49
1:D:4543:GLU:O	1:D:4546:VAL:HG22	2.13	0.49
1:D:4764:LEU:HD12	1:D:4765:LEU:N	2.28	0.49
1:C:156:GLN:OE1	1:C:156:GLN:CA	2.61	0.49
1:C:463:GLU:O	1:C:467:LYS:HG2	2.12	0.49
1:C:2926:LEU:O	1:C:2930:LEU:HD13	2.12	0.49
1:C:3413:ILE:HG23	1:C:3516:LYS:HD3	1.93	0.49
1:A:1143:TRP:CE3	1:A:1149:VAL:HG21	2.47	0.49
1:A:4791:TYR:CZ	1:A:4818:MET:CE	2.96	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4930:ALA:HA	1:A:4933:GLN:OE1	2.13	0.49
2:E:25:HIS:ND1	2:E:104:LEU:HD21	2.28	0.49
2:F:24:VAL:HG21	2:F:59:TRP:CZ3	2.47	0.49
1:B:648:ILE:HD13	1:B:811:CYS:HB3	1.93	0.49
1:B:3382:GLU:HA	1:B:3384:LYS:HZ3	1.78	0.49
1:D:509:GLU:O	1:D:513:GLU:OE1	2.31	0.49
1:D:2926:LEU:O	1:D:2930:LEU:HD13	2.12	0.49
1:D:3107:VAL:O	1:D:3111:ARG:HG2	2.13	0.49
1:D:3635:CYS:HA	1:D:3638:MET:CE	2.43	0.49
1:D:4902:GLU:O	1:D:4913:ARG:CZ	2.61	0.49
1:C:26:ALA:N	1:C:32:GLN:OE1	2.46	0.49
2:G:24:VAL:HG21	2:G:59:TRP:CZ3	2.47	0.49
1:B:988:LEU:HB3	1:B:1039:LEU:HD21	1.93	0.49
1:B:4686:LEU:O	1:B:4691:GLN:N	2.36	0.49
1:D:438:ILE:HG23	1:D:518:ILE:HD11	1.94	0.49
1:D:914:PRO:HB2	1:D:917:GLU:OE1	2.13	0.49
1:D:3382:GLU:HA	1:D:3384:LYS:HZ3	1.78	0.49
1:C:278:GLN:HA	1:C:328:LYS:NZ	2.28	0.49
1:C:2644:LEU:HD13	1:C:2678:LEU:HD21	1.95	0.49
1:A:601:ASP:OD1	1:A:1665:HIS:ND1	2.38	0.49
1:A:1143:TRP:HZ3	1:A:1149:VAL:HG21	1.74	0.49
1:A:2166:LEU:HD11	1:A:2206:THR:HG23	1.94	0.49
1:A:2644:LEU:HD13	1:A:2678:LEU:HD21	1.95	0.49
1:A:2974:ILE:HG13	1:A:2975:ALA:N	2.27	0.49
1:A:4161:ARG:HA	1:A:4164:LEU:HD12	1.95	0.49
2:H:2:VAL:HG23	2:H:80:TYR:HD2	1.78	0.49
2:G:2:VAL:HG23	2:G:80:TYR:HD2	1.78	0.49
1:D:2614:ILE:HG23	1:D:2618:MET:SD	2.53	0.49
1:D:3225:ARG:NH2	1:D:3226:GLU:OE2	2.45	0.49
1:C:3944:GLU:OE2	1:C:3946:GLN:HB2	2.12	0.49
1:C:4651:THR:OG1	1:C:4803:HIS:NE2	2.33	0.49
1:C:4826:ILE:O	1:C:4829:SER:OG	2.24	0.49
1:A:156:GLN:OE1	1:A:156:GLN:CA	2.61	0.49
1:A:278:GLN:HA	1:A:328:LYS:NZ	2.28	0.49
1:A:2142:TYR:HA	1:A:3651:ASN:HD21	1.77	0.49
1:A:2977:LEU:O	1:A:2981:VAL:HG23	2.13	0.49
1:A:3107:VAL:O	1:A:3111:ARG:HG2	2.13	0.49
1:A:3383:ALA:N	1:A:3384:LYS:HZ2	2.11	0.49
2:G:25:HIS:ND1	2:G:104:LEU:HD21	2.28	0.49
1:B:234:SER:HG	1:B:238:SER:HG	1.49	0.49
1:B:278:GLN:HA	1:B:328:LYS:NZ	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:818:ARG:NH1	1:B:1029:GLU:OE2	2.40	0.49
1:B:2494:PHE:HD1	1:B:2498:HIS:HD1	1.61	0.49
1:B:2522:LEU:HD23	1:B:2582:MET:HE2	1.95	0.49
1:B:2644:LEU:HD13	1:B:2678:LEU:HD21	1.95	0.49
1:B:3107:VAL:O	1:B:3111:ARG:HG2	2.13	0.49
1:B:4736:ARG:HB2	1:B:4736:ARG:NH1	2.28	0.49
1:D:278:GLN:HA	1:D:328:LYS:NZ	2.28	0.49
1:D:3324:VAL:CG1	1:D:3361:THR:HG22	2.41	0.49
1:D:4161:ARG:HA	1:D:4164:LEU:HD12	1.95	0.49
1:C:3635:CYS:HA	1:C:3638:MET:CE	2.43	0.49
1:C:4902:GLU:O	1:C:4913:ARG:CZ	2.60	0.49
1:A:941:MET:SD	1:A:1051:TYR:HE1	2.35	0.48
1:A:1436:SER:OG	1:A:1565:GLU:HB2	2.13	0.48
1:A:4764:LEU:HD12	1:A:4765:LEU:N	2.28	0.48
2:E:2:VAL:HG23	2:E:80:TYR:HD2	1.78	0.48
1:B:21:VAL:HG11	1:B:62:LEU:HD11	1.95	0.48
1:B:509:GLU:O	1:B:513:GLU:OE1	2.31	0.48
1:B:914:PRO:HB2	1:B:917:GLU:OE1	2.13	0.48
1:B:4870:ASP:N	1:B:4870:ASP:OD1	2.44	0.48
1:D:156:GLN:OE1	1:D:156:GLN:CA	2.61	0.48
1:D:3383:ALA:O	1:D:3384:LYS:HD3	2.13	0.48
1:D:4016:LEU:O	1:D:4020:GLN:HG3	2.13	0.48
1:D:4736:ARG:NH1	1:D:4736:ARG:HB2	2.28	0.48
1:C:3382:GLU:CA	1:C:3384:LYS:HZ3	2.25	0.48
1:A:717:ASP:OD1	1:A:720:HIS:N	2.41	0.48
2:H:24:VAL:HG21	2:H:59:TRP:CZ3	2.47	0.48
1:B:4764:LEU:HD12	1:B:4765:LEU:N	2.28	0.48
1:B:4791:TYR:CZ	1:B:4818:MET:CE	2.96	0.48
1:D:1143:TRP:HZ3	1:D:1149:VAL:HG21	1.74	0.48
1:D:4826:ILE:O	1:D:4829:SER:OG	2.24	0.48
1:C:818:ARG:NH1	1:C:1029:GLU:OE2	2.40	0.48
1:C:4016:LEU:O	1:C:4020:GLN:HG3	2.13	0.48
1:C:4930:ALA:HA	1:C:4933:GLN:OE1	2.13	0.48
1:A:21:VAL:HG11	1:A:62:LEU:HD11	1.95	0.48
1:A:492:ASP:O	1:A:496:VAL:HG13	2.14	0.48
1:A:2237:CYS:SG	1:A:2275:VAL:HG22	2.54	0.48
1:A:2494:PHE:HD1	1:A:2498:HIS:HD1	1.61	0.48
1:A:3395:ARG:HD2	1:A:3454:GLU:CD	2.33	0.48
1:A:4736:ARG:NH1	1:A:4736:ARG:HB2	2.28	0.48
2:F:25:HIS:ND1	2:F:104:LEU:HD21	2.28	0.48
1:B:2675:THR:CG2	1:B:2706:ILE:HG23	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2977:LEU:O	1:B:2981:VAL:HG23	2.13	0.48
1:B:3324:VAL:CG1	1:B:3361:THR:HG22	2.41	0.48
1:B:3383:ALA:O	1:B:3384:LYS:HD3	2.13	0.48
1:B:3946:GLN:HE22	1:B:3949:ARG:HH21	1.62	0.48
1:B:4543:GLU:O	1:B:4546:VAL:HG22	2.13	0.48
1:D:2166:LEU:HD11	1:D:2206:THR:HG23	1.94	0.48
1:D:2604:GLU:CB	1:D:2608:MET:HE1	2.42	0.48
1:D:2977:LEU:O	1:D:2981:VAL:HG23	2.13	0.48
1:C:3321:ARG:HH11	1:C:3321:ARG:CG	2.13	0.48
1:A:2755:ILE:HD13	1:A:2810:LYS:HD3	1.96	0.48
2:H:3:GLN:NE2	2:H:75:THR:HG21	2.28	0.48
1:B:1436:SER:OG	1:B:1565:GLU:HB2	2.13	0.48
1:B:2781:VAL:HG22	1:B:2789:PRO:HB2	1.96	0.48
1:D:601:ASP:OD1	1:D:1665:HIS:ND1	2.38	0.48
1:D:1143:TRP:CE3	1:D:1149:VAL:HG21	2.47	0.48
1:D:3395:ARG:HD2	1:D:3454:GLU:CD	2.33	0.48
1:D:4930:ALA:HA	1:D:4933:GLN:OE1	2.13	0.48
1:C:988:LEU:HB3	1:C:1039:LEU:HD21	1.93	0.48
1:C:2237:CYS:SG	1:C:2275:VAL:HG22	2.54	0.48
1:C:2494:PHE:HD1	1:C:2498:HIS:HD1	1.61	0.48
1:C:2619:LEU:O	1:C:2623:LEU:HD13	2.14	0.48
1:C:3382:GLU:HA	1:C:3384:LYS:HZ3	1.78	0.48
1:C:3946:GLN:HE22	1:C:3949:ARG:HH21	1.62	0.48
1:C:4746:ALA:O	1:C:4750:ILE:HD12	2.14	0.48
1:A:2290:LEU:HD23	1:A:2291:GLN:N	2.29	0.48
1:A:2675:THR:CG2	1:A:2706:ILE:HG23	2.43	0.48
1:A:2926:LEU:O	1:A:2930:LEU:HD13	2.12	0.48
2:E:3:GLN:NE2	2:E:75:THR:HG21	2.28	0.48
1:B:308:HIS:O	1:B:310:LYS:N	2.46	0.48
1:B:2166:LEU:HD11	1:B:2206:THR:HG23	1.94	0.48
1:B:2926:LEU:O	1:B:2930:LEU:HD13	2.12	0.48
1:B:3945:GLU:OE1	1:B:3946:GLN:NE2	2.47	0.48
1:D:2237:CYS:SG	1:D:2275:VAL:HG22	2.54	0.48
1:D:2755:ILE:HD13	1:D:2810:LYS:HD3	1.96	0.48
1:D:4746:ALA:O	1:D:4750:ILE:HD12	2.14	0.48
1:C:985:VAL:HG22	1:C:1043:VAL:HG21	1.94	0.48
1:C:2614:ILE:HG23	1:C:2618:MET:SD	2.53	0.48
1:C:2675:THR:CG2	1:C:2706:ILE:HG23	2.43	0.48
1:C:2755:ILE:HD13	1:C:2810:LYS:HD3	1.96	0.48
1:C:3107:VAL:O	1:C:3111:ARG:HG2	2.13	0.48
1:C:4764:LEU:HD12	1:C:4765:LEU:N	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:438:ILE:HG23	1:A:518:ILE:HD11	1.94	0.48
1:A:1577:ALA:O	1:A:1584:ARG:NH1	2.43	0.48
1:A:2310:CYS:O	1:A:2314:LEU:HD23	2.14	0.48
1:A:2894:LEU:O	1:A:2897:LYS:N	2.47	0.48
1:A:4016:LEU:O	1:A:4020:GLN:HG3	2.13	0.48
1:B:2755:ILE:HD13	1:B:2810:LYS:HD3	1.96	0.48
1:B:2894:LEU:O	1:B:2897:LYS:N	2.47	0.48
1:B:4746:ALA:O	1:B:4750:ILE:HD12	2.14	0.48
1:D:26:ALA:N	1:D:32:GLN:OE1	2.46	0.48
1:D:2781:VAL:HG22	1:D:2789:PRO:HB2	1.96	0.48
1:C:308:HIS:O	1:C:310:LYS:N	2.46	0.48
1:C:509:GLU:O	1:C:513:GLU:OE1	2.31	0.48
1:C:3114:LYS:HD2	1:C:3125:VAL:HG21	1.94	0.48
1:C:3319:ILE:C	1:C:3321:ARG:N	2.65	0.48
1:A:553:ARG:NE	1:A:555:GLU:OE2	2.46	0.48
1:A:2614:ILE:HG23	1:A:2618:MET:SD	2.53	0.48
1:A:3916:ILE:H	1:A:3916:ILE:HD12	1.79	0.48
1:A:4543:GLU:O	1:A:4546:VAL:HG22	2.13	0.48
1:A:4746:ALA:O	1:A:4750:ILE:HD12	2.14	0.48
2:F:2:VAL:HG23	2:F:80:TYR:HD2	1.78	0.48
1:B:4902:GLU:O	1:B:4913:ARG:CZ	2.61	0.48
1:D:975:VAL:CG1	1:D:1047:LEU:HD23	2.44	0.48
1:D:1749:PRO:O	1:D:1758:ARG:NH2	2.47	0.48
1:D:2494:PHE:HD1	1:D:2498:HIS:HD1	1.61	0.48
1:D:2675:THR:CG2	1:D:2706:ILE:HG23	2.43	0.48
1:D:3114:LYS:HD2	1:D:3125:VAL:HG21	1.94	0.48
1:D:3945:GLU:OE1	1:D:3946:GLN:NE2	2.47	0.48
1:C:1436:SER:OG	1:C:1565:GLU:HB2	2.13	0.48
1:C:2229:VAL:CG1	1:C:2267:MET:HE1	2.38	0.48
1:C:2393:ASP:OD1	1:C:2418:LEU:N	2.47	0.48
1:C:3111:ARG:O	1:C:3112:LEU:HB2	2.13	0.48
1:C:3383:ALA:O	1:C:3384:LYS:HD3	2.13	0.48
1:A:975:VAL:CG1	1:A:1047:LEU:HD23	2.44	0.48
1:B:438:ILE:HG23	1:B:518:ILE:HD11	1.94	0.48
1:B:1143:TRP:HZ3	1:B:1149:VAL:HG21	1.74	0.48
1:B:1749:PRO:O	1:B:1758:ARG:NH2	2.47	0.48
1:B:2614:ILE:HG23	1:B:2618:MET:SD	2.53	0.48
1:B:3111:ARG:O	1:B:3112:LEU:HB2	2.13	0.48
1:D:492:ASP:O	1:D:496:VAL:HG13	2.14	0.48
1:D:3111:ARG:O	1:D:3112:LEU:HB2	2.13	0.48
1:C:3240:CYS:SG	1:C:3243:ILE:HD13	2.54	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3945:GLU:OE1	1:C:3946:GLN:NE2	2.47	0.48
1:A:860:GLN:O	1:A:930:LYS:NZ	2.39	0.48
1:D:2644:LEU:HD13	1:D:2678:LEU:HD21	1.95	0.48
1:D:3240:CYS:SG	1:D:3243:ILE:HD13	2.54	0.48
1:D:3552:PHE:O	1:D:3555:ASN:OD1	2.32	0.48
1:D:3946:GLN:HE22	1:D:3949:ARG:HH21	1.62	0.48
1:C:4161:ARG:HA	1:C:4164:LEU:HD12	1.95	0.48
1:A:509:GLU:O	1:A:513:GLU:OE1	2.31	0.48
1:A:2581:SER:O	1:A:2585:THR:HG23	2.14	0.48
1:A:2986:VAL:HG13	1:A:2986:VAL:O	2.14	0.48
1:A:3414:ARG:CZ	1:A:3472:ALA:HB3	2.44	0.48
1:A:3445:TRP:O	1:A:3452:LYS:NZ	2.34	0.48
1:B:2290:LEU:HD23	1:B:2291:GLN:N	2.29	0.48
1:B:3414:ARG:CZ	1:B:3472:ALA:HB3	2.44	0.48
1:B:3933:PHE:HE2	1:B:3951:PHE:CZ	2.18	0.48
1:D:734:GLY:O	1:D:736:HIS:ND1	2.35	0.48
1:D:2310:CYS:O	1:D:2314:LEU:HD23	2.14	0.48
1:D:3365:LEU:HD13	1:D:3405:LEU:HD23	1.95	0.48
1:C:2290:LEU:HD23	1:C:2291:GLN:N	2.29	0.48
1:C:3357:HIS:O	1:C:3361:THR:HG23	2.14	0.48
1:C:4736:ARG:NH1	1:C:4736:ARG:HB2	2.28	0.48
1:A:961:MET:CE	1:A:967:PRO:HD3	2.44	0.47
1:A:3585:ASP:OD1	1:A:3586:ALA:N	2.47	0.47
1:B:975:VAL:CG1	1:B:1047:LEU:HD23	2.44	0.47
1:B:2440:MET:O	1:B:2443:ILE:N	2.47	0.47
1:B:3003:LEU:HB2	1:B:3004:PRO:HD3	1.96	0.47
1:B:3382:GLU:CA	1:B:3384:LYS:HZ3	2.27	0.47
1:D:1436:SER:OG	1:D:1565:GLU:HB2	2.13	0.47
1:D:2290:LEU:HD23	1:D:2291:GLN:N	2.29	0.47
1:D:2330:ARG:HA	1:D:2333:ASP:OD2	2.14	0.47
1:D:3527:PRO:HD2	1:D:3573:MET:HE2	1.95	0.47
1:D:3585:ASP:OD1	1:D:3586:ALA:N	2.47	0.47
1:D:4182:GLU:OE1	1:D:4983:HIS:NE2	2.44	0.47
1:C:2310:CYS:O	1:C:2314:LEU:HD23	2.14	0.47
1:C:3552:PHE:O	1:C:3555:ASN:OD1	2.32	0.47
1:C:4543:GLU:O	1:C:4546:VAL:HG22	2.13	0.47
1:A:856:VAL:HG12	1:A:991:ASN:ND2	2.29	0.47
1:A:1749:PRO:O	1:A:1758:ARG:NH2	2.47	0.47
1:A:3946:GLN:HE22	1:A:3949:ARG:HH21	1.62	0.47
1:A:4586:PRO:HD3	1:A:4629:TYR:HE2	1.78	0.47
1:A:4791:TYR:CZ	1:A:4818:MET:HE3	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:25:HIS:ND1	2:H:104:LEU:HD21	2.28	0.47
1:B:492:ASP:O	1:B:496:VAL:HG13	2.14	0.47
1:B:2619:LEU:O	1:B:2623:LEU:HD13	2.14	0.47
1:B:3395:ARG:HD2	1:B:3454:GLU:CD	2.33	0.47
1:B:4161:ARG:HA	1:B:4164:LEU:HD12	1.95	0.47
1:D:1492:CYS:SG	1:D:1494:MET:HG3	2.54	0.47
1:D:2440:MET:O	1:D:2443:ILE:N	2.47	0.47
1:D:2894:LEU:O	1:D:2897:LYS:N	2.47	0.47
1:D:3799:LYS:NZ	1:D:3883:ASP:OD2	2.48	0.47
1:D:4586:PRO:HD3	1:D:4629:TYR:HE2	1.78	0.47
1:C:856:VAL:HG12	1:C:991:ASN:ND2	2.29	0.47
1:C:2939:ARG:HE	1:C:2939:ARG:HA	1.79	0.47
1:A:2393:ASP:OD1	1:A:2418:LEU:N	2.47	0.47
1:A:3003:LEU:HB2	1:A:3004:PRO:HD3	1.96	0.47
1:A:4680:LYS:O	1:A:4685:GLY:N	2.42	0.47
1:B:2330:ARG:HA	1:B:2333:ASP:OD2	2.14	0.47
1:B:3585:ASP:OD1	1:B:3586:ALA:N	2.47	0.47
1:B:3916:ILE:H	1:B:3916:ILE:HD12	1.79	0.47
1:C:612:VAL:HG13	1:C:2167:ILE:O	2.14	0.47
1:C:1492:CYS:SG	1:C:1494:MET:HG3	2.54	0.47
1:C:2330:ARG:HA	1:C:2333:ASP:OD2	2.14	0.47
1:C:2744:ASN:OD1	1:C:2745:VAL:N	2.48	0.47
1:C:2894:LEU:O	1:C:2897:LYS:N	2.47	0.47
1:C:3395:ARG:HD2	1:C:3454:GLU:CD	2.33	0.47
1:C:3613:TYR:O	1:C:3617:LYS:NZ	2.36	0.47
1:A:595:ARG:NH1	1:A:1643:GLU:OE2	2.44	0.47
1:A:1931:LEU:HD13	1:A:1935:VAL:CG1	2.41	0.47
1:B:856:VAL:HG12	1:B:991:ASN:ND2	2.29	0.47
1:B:1492:CYS:SG	1:B:1494:MET:HG3	2.54	0.47
1:B:3319:ILE:C	1:B:3321:ARG:N	2.65	0.47
1:B:3448:SER:O	1:B:3452:LYS:NZ	2.48	0.47
1:D:612:VAL:HG13	1:D:2167:ILE:O	2.14	0.47
1:D:856:VAL:HG12	1:D:991:ASN:ND2	2.29	0.47
1:D:2393:ASP:OD1	1:D:2418:LEU:N	2.47	0.47
1:D:2619:LEU:O	1:D:2623:LEU:HD13	2.14	0.47
1:D:2939:ARG:HA	1:D:2939:ARG:HE	1.79	0.47
1:D:3036:LYS:O	1:D:3039:ILE:HG22	2.14	0.47
1:C:1131:ARG:NH1	1:C:1178:ALA:O	2.47	0.47
1:C:2581:SER:O	1:C:2585:THR:HG23	2.14	0.47
1:C:2761:TYR:C	1:C:2765:LYS:HZ3	2.17	0.47
1:C:2781:VAL:HG22	1:C:2789:PRO:HB2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2330:ARG:HA	1:A:2333:ASP:OD2	2.14	0.47
1:A:2495:VAL:HG23	1:A:2497:ASP:OD1	2.15	0.47
1:A:2781:VAL:HG22	1:A:2789:PRO:HB2	1.96	0.47
1:A:3061:ALA:O	1:A:3065:VAL:HG23	2.15	0.47
1:A:3552:PHE:O	1:A:3555:ASN:OD1	2.32	0.47
1:B:612:VAL:HG13	1:B:2167:ILE:O	2.14	0.47
1:B:1461:ASP:OD2	1:B:1468:LYS:NZ	2.47	0.47
1:B:2237:CYS:SG	1:B:2275:VAL:HG22	2.54	0.47
1:B:2310:CYS:O	1:B:2314:LEU:HD23	2.14	0.47
1:B:3169:LEU:HD11	1:B:3205:PHE:CZ	2.50	0.47
1:D:595:ARG:NH1	1:D:1643:GLU:OE2	2.44	0.47
1:D:2186:MET:HE2	1:D:2234:ARG:C	2.34	0.47
1:D:2581:SER:O	1:D:2585:THR:HG23	2.14	0.47
1:C:975:VAL:CG1	1:C:1047:LEU:HD23	2.44	0.47
1:C:1749:PRO:O	1:C:1758:ARG:NH2	2.47	0.47
1:C:2440:MET:O	1:C:2443:ILE:N	2.47	0.47
1:C:2977:LEU:O	1:C:2981:VAL:HG23	2.13	0.47
1:C:3633:VAL:O	1:C:3637:ARG:HG2	2.15	0.47
1:C:3718:GLU:OE2	1:C:3723:MET:HE1	2.14	0.47
1:A:612:VAL:HG13	1:A:2167:ILE:O	2.14	0.47
1:A:3435:PHE:CD2	1:A:3524:MET:HE2	2.49	0.47
1:B:1828:ASP:N	1:B:1828:ASP:OD1	2.48	0.47
1:B:3357:HIS:O	1:B:3361:THR:HG23	2.14	0.47
1:B:3765:TYR:CZ	1:B:4753:HIS:ND1	2.75	0.47
1:D:2744:ASN:OD1	1:D:2745:VAL:N	2.48	0.47
1:D:3061:ALA:O	1:D:3065:VAL:HG23	2.15	0.47
1:D:3633:VAL:O	1:D:3637:ARG:HG2	2.15	0.47
1:C:21:VAL:HG11	1:C:62:LEU:HD11	1.95	0.47
1:C:3036:LYS:O	1:C:3039:ILE:HG22	2.14	0.47
1:A:308:HIS:O	1:A:310:LYS:N	2.46	0.47
1:A:1000:ARG:HG3	1:A:1005:TRP:HB2	1.97	0.47
1:A:2440:MET:O	1:A:2443:ILE:N	2.47	0.47
1:A:2619:LEU:O	1:A:2623:LEU:HD13	2.14	0.47
1:A:2684:ASP:O	1:A:2688:HIS:ND1	2.39	0.47
1:A:3036:LYS:O	1:A:3039:ILE:HG22	2.14	0.47
1:A:3169:LEU:HD11	1:A:3205:PHE:CZ	2.50	0.47
1:A:3324:VAL:CG1	1:A:3361:THR:HG22	2.41	0.47
1:A:3365:LEU:HD13	1:A:3405:LEU:HD23	1.95	0.47
1:A:3660:ALA:O	1:A:3664:THR:OG1	2.17	0.47
1:A:3945:GLU:OE1	1:A:3946:GLN:NE2	2.47	0.47
1:B:553:ARG:NE	1:B:555:GLU:OE2	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1101:ARG:HG2	1:B:1125:ASN:HB2	1.97	0.47
1:B:1157:GLU:OE1	1:B:1157:GLU:N	2.48	0.47
1:B:1791:VAL:O	1:B:1792:ALA:HB3	2.15	0.47
1:B:2581:SER:O	1:B:2585:THR:HG23	2.14	0.47
1:B:2744:ASN:OD1	1:B:2745:VAL:N	2.48	0.47
1:B:2986:VAL:O	1:B:2986:VAL:HG13	2.14	0.47
1:B:3240:CYS:SG	1:B:3243:ILE:HD13	2.54	0.47
1:B:3359:ILE:HB	1:B:3360:PRO:HD3	1.97	0.47
1:B:3414:ARG:NH2	1:B:3469:PHE:O	2.48	0.47
1:B:3552:PHE:O	1:B:3555:ASN:OD1	2.32	0.47
1:B:3799:LYS:NZ	1:B:3883:ASP:OD2	2.48	0.47
1:B:4016:LEU:O	1:B:4020:GLN:HG3	2.13	0.47
1:B:4586:PRO:HD3	1:B:4629:TYR:HE2	1.78	0.47
1:D:1101:ARG:HG2	1:D:1125:ASN:HB2	1.97	0.47
1:D:1699:GLU:OE2	1:D:1813:ARG:NH2	2.48	0.47
1:D:1791:VAL:O	1:D:1792:ALA:HB3	2.15	0.47
1:D:3414:ARG:NH2	1:D:3469:PHE:O	2.48	0.47
1:C:492:ASP:O	1:C:496:VAL:HG13	2.14	0.47
1:C:2986:VAL:O	1:C:2986:VAL:HG13	2.14	0.47
1:A:1492:CYS:SG	1:A:1494:MET:HG3	2.54	0.47
1:A:2744:ASN:OD1	1:A:2745:VAL:N	2.48	0.47
1:B:3036:LYS:O	1:B:3039:ILE:HG22	2.14	0.47
1:B:3365:LEU:HD13	1:B:3405:LEU:HD23	1.95	0.47
1:D:2986:VAL:HG13	1:D:2986:VAL:O	2.14	0.47
1:D:3169:LEU:HD11	1:D:3205:PHE:CZ	2.50	0.47
1:D:3916:ILE:H	1:D:3916:ILE:HD12	1.79	0.47
1:C:553:ARG:NH2	1:C:555:GLU:OE2	2.47	0.47
1:C:1101:ARG:HG2	1:C:1125:ASN:HB2	1.97	0.47
1:C:4586:PRO:HD3	1:C:4629:TYR:HE2	1.78	0.47
1:A:1791:VAL:O	1:A:1792:ALA:HB3	2.15	0.47
1:A:3111:ARG:O	1:A:3112:LEU:HB2	2.14	0.47
1:A:3357:HIS:O	1:A:3361:THR:HG23	2.14	0.47
1:B:2021:CYS:O	1:B:2028:ARG:NH2	2.48	0.47
1:B:2907:PRO:HB2	1:B:2909:ASP:OD1	2.15	0.47
1:B:3007:ASN:O	1:B:3011:THR:OG1	2.30	0.47
1:D:1000:ARG:HG3	1:D:1005:TRP:HB2	1.97	0.47
1:C:1000:ARG:HG3	1:C:1005:TRP:HB2	1.97	0.47
1:C:1699:GLU:OE2	1:C:1813:ARG:NH2	2.48	0.47
1:C:3365:LEU:HD13	1:C:3405:LEU:HD23	1.95	0.47
1:C:3946:GLN:HA	1:C:3949:ARG:CD	2.45	0.47
1:A:1101:ARG:HG2	1:A:1125:ASN:HB2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1157:GLU:OE1	1:A:1157:GLU:N	2.48	0.47
1:A:1792:ALA:O	1:A:2176:ASN:ND2	2.48	0.47
1:A:3240:CYS:SG	1:A:3243:ILE:HD13	2.54	0.47
1:A:3359:ILE:HB	1:A:3360:PRO:HD3	1.97	0.47
1:A:3379:LEU:O	1:A:3382:GLU:O	2.33	0.47
1:B:3061:ALA:O	1:B:3065:VAL:HG23	2.15	0.47
1:D:1461:ASP:OD2	1:D:1468:LYS:NZ	2.47	0.47
1:D:1792:ALA:O	1:D:2176:ASN:ND2	2.48	0.47
1:C:2021:CYS:O	1:C:2028:ARG:NH2	2.48	0.47
1:A:939:VAL:HG13	1:A:1051:TYR:HB3	1.97	0.46
1:A:2790:MET:HE1	1:A:2797:PHE:CE1	2.50	0.46
1:A:3225:ARG:HD2	1:A:3226:GLU:N	2.30	0.46
1:A:3391:GLU:OE2	1:A:3450:ASN:ND2	2.34	0.46
1:B:1000:ARG:HG3	1:B:1005:TRP:HB2	1.97	0.46
1:B:2650:ARG:HG3	1:B:2651:CYS:SG	2.55	0.46
1:B:3633:VAL:O	1:B:3637:ARG:HG2	2.15	0.46
1:B:4791:TYR:CZ	1:B:4818:MET:HE3	2.50	0.46
1:D:1157:GLU:OE1	1:D:1157:GLU:N	2.48	0.46
1:D:2294:ASP:O	1:D:2298:VAL:HG23	2.15	0.46
1:D:3357:HIS:O	1:D:3361:THR:HG23	2.14	0.46
1:C:3585:ASP:OD1	1:C:3586:ALA:N	2.47	0.46
1:A:1828:ASP:N	1:A:1828:ASP:OD1	2.48	0.46
1:A:3946:GLN:HA	1:A:3949:ARG:CD	2.45	0.46
1:B:1811:ALA:HA	1:B:1814:MET:HE2	1.97	0.46
1:B:4911:LEU:HA	1:B:4914:VAL:HG22	1.97	0.46
1:D:3003:LEU:HB2	1:D:3004:PRO:HD3	1.96	0.46
1:D:3225:ARG:HD2	1:D:3226:GLU:N	2.30	0.46
1:D:3379:LEU:O	1:D:3382:GLU:O	2.33	0.46
1:C:1157:GLU:OE1	1:C:1157:GLU:N	2.48	0.46
1:C:2118:ARG:NH2	1:C:3719:ASP:OD1	2.44	0.46
1:C:2650:ARG:HG3	1:C:2651:CYS:SG	2.55	0.46
1:C:3448:SER:O	1:C:3452:LYS:NZ	2.48	0.46
1:C:3916:ILE:HD12	1:C:3916:ILE:H	1.79	0.46
1:C:4942:GLU:O	1:C:4945:ASP:OD1	2.33	0.46
1:A:2021:CYS:O	1:A:2028:ARG:NH2	2.48	0.46
1:A:2673:HIS:ND1	1:A:2716:ASP:OD2	2.46	0.46
1:A:2939:ARG:HA	1:A:2939:ARG:HE	1.79	0.46
1:A:3383:ALA:O	1:A:3384:LYS:HD3	2.13	0.46
1:A:3633:VAL:O	1:A:3637:ARG:HG2	2.15	0.46
1:A:3799:LYS:NZ	1:A:3883:ASP:OD2	2.48	0.46
1:B:961:MET:CE	1:B:965:TYR:O	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2294:ASP:O	1:B:2298:VAL:HG23	2.15	0.46
1:B:2393:ASP:OD1	1:B:2418:LEU:N	2.47	0.46
1:B:2495:VAL:HG23	1:B:2497:ASP:OD1	2.15	0.46
1:B:3225:ARG:HD2	1:B:3226:GLU:N	2.30	0.46
1:D:553:ARG:NH2	1:D:555:GLU:OE2	2.47	0.46
1:D:961:MET:CE	1:D:967:PRO:HD3	2.44	0.46
1:D:2495:VAL:HG23	1:D:2497:ASP:OD1	2.15	0.46
1:C:553:ARG:NE	1:C:555:GLU:OE2	2.46	0.46
1:C:2495:VAL:HG23	1:C:2497:ASP:OD1	2.15	0.46
1:C:3225:ARG:HD2	1:C:3226:GLU:N	2.30	0.46
1:C:3414:ARG:NH2	1:C:3469:PHE:O	2.48	0.46
1:A:1131:ARG:NH1	1:A:1178:ALA:O	2.47	0.46
1:A:3448:SER:O	1:A:3452:LYS:NZ	2.48	0.46
1:A:4911:LEU:HA	1:A:4914:VAL:HG22	1.97	0.46
1:B:553:ARG:NH2	1:B:555:GLU:OE2	2.47	0.46
1:B:1759:ARG:O	1:B:1759:ARG:HD2	2.16	0.46
1:B:3316:LEU:HD21	1:B:3346:VAL:HG23	1.97	0.46
1:B:3969:ILE:HG21	1:B:3980:LEU:HD12	1.98	0.46
1:D:961:MET:CE	1:D:965:TYR:O	2.63	0.46
1:D:2021:CYS:O	1:D:2028:ARG:NH2	2.48	0.46
1:D:2410:PRO:HG3	1:D:2415:ARG:HD2	1.98	0.46
1:D:3369:ALA:HB2	1:D:3401:LEU:HD21	1.98	0.46
1:C:2410:PRO:HG3	1:C:2415:ARG:HD2	1.98	0.46
1:C:3003:LEU:HB2	1:C:3004:PRO:HD3	1.96	0.46
1:C:3169:LEU:HD11	1:C:3205:PHE:CZ	2.50	0.46
1:C:3414:ARG:CZ	1:C:3472:ALA:HB3	2.44	0.46
1:A:3316:LEU:HD21	1:A:3346:VAL:HG23	1.97	0.46
1:A:4944:ARG:NE	1:B:4938:ASP:OD1	2.47	0.46
2:G:3:GLN:NE2	2:G:75:THR:HB	2.31	0.46
1:B:931:THR:HG21	1:B:991:ASN:ND2	2.31	0.46
1:B:3466:ASN:O	1:B:3470:LEU:HG	2.16	0.46
1:B:3613:TYR:O	1:B:3617:LYS:NZ	2.36	0.46
1:B:4942:GLU:O	1:B:4945:ASP:OD1	2.33	0.46
1:D:3414:ARG:CZ	1:D:3472:ALA:HB3	2.44	0.46
1:D:3613:TYR:O	1:D:3617:LYS:NZ	2.36	0.46
1:D:3718:GLU:OE2	1:D:3723:MET:HE1	2.15	0.46
1:C:1792:ALA:O	1:C:2176:ASN:ND2	2.48	0.46
1:C:2023:LEU:O	1:C:2028:ARG:NH2	2.49	0.46
1:C:3061:ALA:O	1:C:3065:VAL:HG23	2.15	0.46
1:C:4083:ASP:OD1	1:C:4085:ARG:NH1	2.49	0.46
1:A:1699:GLU:OE2	1:A:1813:ARG:NH2	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2650:ARG:HG3	1:A:2651:CYS:SG	2.55	0.46
1:A:3414:ARG:NH2	1:A:3469:PHE:O	2.48	0.46
1:B:1434:TYR:HB2	1:B:1572:ILE:HG21	1.98	0.46
1:B:1931:LEU:HD13	1:B:1935:VAL:CG1	2.41	0.46
1:B:2233:CYS:SG	1:B:2270:SER:HB2	2.56	0.46
1:D:553:ARG:NE	1:D:555:GLU:OE2	2.46	0.46
1:D:3166:TYR:OH	1:D:3203:VAL:HG21	2.16	0.46
1:D:3969:ILE:HG21	1:D:3980:LEU:HD12	1.98	0.46
1:D:4083:ASP:OD1	1:D:4085:ARG:NH1	2.49	0.46
1:C:1791:VAL:O	1:C:1792:ALA:HB3	2.15	0.46
1:C:3369:ALA:HB2	1:C:3401:LEU:HD21	1.98	0.46
1:C:3799:LYS:NZ	1:C:3883:ASP:OD2	2.48	0.46
1:A:961:MET:CE	1:A:965:TYR:O	2.64	0.46
1:A:2294:ASP:O	1:A:2298:VAL:HG23	2.16	0.46
1:A:2522:LEU:HD23	1:A:2582:MET:HE2	1.98	0.46
1:A:2907:PRO:HB2	1:A:2909:ASP:OD1	2.15	0.46
1:A:3369:ALA:HB2	1:A:3401:LEU:HD21	1.98	0.46
1:A:3901:ASN:OD1	1:A:3904:ARG:NH1	2.45	0.46
1:A:3969:ILE:HG21	1:A:3980:LEU:HD12	1.98	0.46
1:A:4942:GLU:O	1:A:4945:ASP:OD1	2.33	0.46
1:B:2684:ASP:O	1:B:2688:HIS:ND1	2.39	0.46
1:B:3527:PRO:HD2	1:B:3573:MET:CE	2.46	0.46
1:B:3635:CYS:HA	1:B:3638:MET:CE	2.43	0.46
1:D:1434:TYR:HB2	1:D:1572:ILE:HG21	1.98	0.46
1:C:1931:LEU:HD13	1:C:1935:VAL:CG1	2.41	0.46
1:C:2907:PRO:HB2	1:C:2909:ASP:OD1	2.15	0.46
1:C:3892:CYS:HG	1:C:3899:PHE:HD2	1.60	0.46
1:C:3933:PHE:HE2	1:C:3951:PHE:CZ	2.18	0.46
1:A:3162:GLN:HE21	1:A:3203:VAL:HG11	1.80	0.46
1:A:3527:PRO:HD2	1:A:3573:MET:CE	2.46	0.46
1:A:4083:ASP:OD1	1:A:4085:ARG:NH1	2.49	0.46
1:B:3166:TYR:OH	1:B:3203:VAL:HG21	2.16	0.46
1:D:2023:LEU:O	1:D:2028:ARG:NH2	2.49	0.46
1:D:4911:LEU:HA	1:D:4914:VAL:HG22	1.97	0.46
1:C:796:ARG:O	1:C:1622:GLU:HA	2.16	0.46
1:C:1811:ALA:HA	1:C:1814:MET:HE2	1.98	0.46
1:C:3822:ASP:OD1	1:C:3823:LYS:N	2.49	0.46
1:C:3969:ILE:HG21	1:C:3980:LEU:HD12	1.98	0.46
1:A:3755:GLU:O	1:A:3759:GLU:OE1	2.34	0.46
1:B:309:THR:O	1:B:313:SER:N	2.49	0.46
1:B:796:ARG:O	1:B:1622:GLU:HA	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1699:GLU:OE2	1:B:1813:ARG:NH2	2.48	0.46
1:B:3559:LEU:O	1:B:3559:LEU:HD23	2.16	0.46
1:B:3997:ALA:HB1	1:B:4057:MET:SD	2.56	0.46
1:D:1811:ALA:HA	1:D:1814:MET:HE2	1.98	0.46
1:D:2233:CYS:SG	1:D:2270:SER:HB2	2.56	0.46
1:D:3337:ARG:O	1:D:3340:VAL:HG22	2.16	0.46
1:C:323:LEU:O	1:C:324:ASP:OD1	2.34	0.46
1:C:931:THR:HG21	1:C:991:ASN:ND2	2.31	0.46
1:C:1759:ARG:O	1:C:1759:ARG:HD2	2.16	0.46
1:C:2684:ASP:O	1:C:2688:HIS:ND1	2.39	0.46
1:C:3166:TYR:OH	1:C:3203:VAL:HG21	2.16	0.46
1:C:3337:ARG:O	1:C:3340:VAL:HG22	2.16	0.46
1:C:3997:ALA:HB1	1:C:4057:MET:SD	2.56	0.46
1:C:4720:VAL:O	1:C:4724:VAL:HG23	2.16	0.46
1:A:323:LEU:O	1:A:324:ASP:OD1	2.34	0.46
1:D:327:PRO:O	1:D:329:ARG:NH1	2.45	0.46
1:D:858:THR:HG21	1:D:927:GLU:OE2	2.16	0.46
1:D:2974:ILE:HD13	1:D:3049:LEU:CD1	2.46	0.46
1:D:4942:GLU:O	1:D:4945:ASP:OD1	2.33	0.46
1:C:961:MET:CE	1:C:967:PRO:HD3	2.44	0.46
1:C:1828:ASP:OD1	1:C:1828:ASP:N	2.48	0.46
1:C:3162:GLN:HE21	1:C:3203:VAL:HG11	1.80	0.46
1:C:3359:ILE:HB	1:C:3360:PRO:HD3	1.97	0.46
1:A:858:THR:HG21	1:A:927:GLU:OE2	2.16	0.45
1:A:2023:LEU:O	1:A:2028:ARG:NH2	2.49	0.45
1:A:2310:CYS:SG	1:A:2313:LEU:HD23	2.56	0.45
1:A:2992:GLU:HA	1:A:2995:ILE:HD12	1.98	0.45
1:A:3106:MET:O	1:A:3110:LEU:HD13	2.16	0.45
1:A:3466:ASN:O	1:A:3470:LEU:HG	2.16	0.45
1:B:2229:VAL:CG1	1:B:2267:MET:CE	2.93	0.45
1:B:2310:CYS:SG	1:B:2313:LEU:HD23	2.56	0.45
1:B:2939:ARG:HA	1:B:2939:ARG:HE	1.79	0.45
1:B:3162:GLN:HE21	1:B:3203:VAL:HG11	1.80	0.45
1:B:3268:HIS:ND1	1:B:3272:ILE:HD12	2.31	0.45
1:D:309:THR:O	1:D:313:SER:N	2.49	0.45
1:D:3201:MET:O	1:D:3283:ARG:NH1	2.49	0.45
1:D:3268:HIS:ND1	1:D:3272:ILE:HD12	2.31	0.45
1:D:3448:SER:O	1:D:3452:LYS:NZ	2.48	0.45
1:D:3527:PRO:HD2	1:D:3573:MET:CE	2.46	0.45
1:D:3997:ALA:HB1	1:D:4057:MET:SD	2.56	0.45
1:D:4720:VAL:O	1:D:4724:VAL:HG23	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:309:THR:O	1:C:313:SER:N	2.49	0.45
1:C:901:LYS:HG3	1:C:903:LEU:HG	1.99	0.45
1:C:972:LEU:HD22	1:C:975:VAL:HG21	1.98	0.45
1:C:2294:ASP:O	1:C:2298:VAL:HG23	2.16	0.45
1:C:2801:ASP:HA	1:C:2804:ILE:HG12	1.98	0.45
1:C:3268:HIS:ND1	1:C:3272:ILE:HD12	2.31	0.45
1:C:3379:LEU:O	1:C:3382:GLU:O	2.33	0.45
1:C:3466:ASN:O	1:C:3470:LEU:HG	2.16	0.45
1:C:3559:LEU:O	1:C:3559:LEU:HD23	2.16	0.45
1:C:4673:ARG:NH2	1:C:4702:ASP:OD1	2.49	0.45
1:A:988:LEU:HB2	1:A:1039:LEU:HD21	1.99	0.45
1:A:3137:LEU:HB2	1:A:3138:PRO:HD3	1.99	0.45
1:A:3997:ALA:HB1	1:A:4057:MET:SD	2.56	0.45
1:A:4655:PHE:HE2	1:A:4659:ILE:HD11	1.81	0.45
1:B:2801:ASP:HA	1:B:2804:ILE:HG12	1.98	0.45
1:B:3369:ALA:HB2	1:B:3401:LEU:HD21	1.98	0.45
1:B:3379:LEU:O	1:B:3382:GLU:O	2.33	0.45
1:B:4083:ASP:OD1	1:B:4085:ARG:NH1	2.49	0.45
1:B:4747:SER:O	1:B:4751:THR:HG23	2.17	0.45
1:D:835:ARG:NH2	1:D:1210:SER:O	2.50	0.45
1:D:2650:ARG:HG3	1:D:2651:CYS:SG	2.55	0.45
1:D:2907:PRO:HB2	1:D:2909:ASP:OD1	2.15	0.45
1:D:3359:ILE:HB	1:D:3360:PRO:HD3	1.97	0.45
1:D:3755:GLU:O	1:D:3759:GLU:OE1	2.34	0.45
1:D:3822:ASP:OD1	1:D:3823:LYS:N	2.49	0.45
1:D:3892:CYS:HG	1:D:3899:PHE:HD2	1.62	0.45
1:D:4747:SER:O	1:D:4751:THR:HG23	2.17	0.45
1:C:213:TYR:HA	1:C:339:ILE:O	2.17	0.45
1:C:1434:TYR:HB2	1:C:1572:ILE:HG21	1.98	0.45
1:C:1461:ASP:OD2	1:C:1468:LYS:NZ	2.47	0.45
1:C:3106:MET:O	1:C:3110:LEU:HD13	2.16	0.45
1:C:4747:SER:O	1:C:4751:THR:HG23	2.17	0.45
1:A:1434:TYR:HB2	1:A:1572:ILE:HG21	1.98	0.45
1:A:1811:ALA:HA	1:A:1814:MET:HE2	1.97	0.45
1:A:1925:GLY:O	1:A:1929:MET:HG3	2.16	0.45
1:A:2608:MET:O	1:A:2612[B]:ARG:HG3	2.17	0.45
1:A:2801:ASP:HA	1:A:2804:ILE:HG12	1.98	0.45
1:A:3337:ARG:O	1:A:3340:VAL:HG22	2.16	0.45
1:A:3559:LEU:HD23	1:A:3559:LEU:O	2.16	0.45
1:A:3718:GLU:OE2	1:A:3723:MET:HE1	2.16	0.45
1:A:4747:SER:O	1:A:4751:THR:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:3:GLN:NE2	2:F:75:THR:HB	2.31	0.45
1:B:858:THR:HG21	1:B:927:GLU:OE2	2.16	0.45
1:B:1925:GLY:O	1:B:1929:MET:HG3	2.16	0.45
1:B:3762:ARG:C	1:B:3766:GLN:NE2	2.69	0.45
1:B:4673:ARG:NH2	1:B:4702:ASP:OD1	2.49	0.45
1:D:972:LEU:HD22	1:D:975:VAL:HG21	1.98	0.45
1:D:3197:LEU:CD2	1:D:3201:MET:SD	3.05	0.45
1:D:3559:LEU:HD23	1:D:3559:LEU:O	2.16	0.45
1:C:939:VAL:HG13	1:C:1051:TYR:HB3	1.97	0.45
1:C:961:MET:CE	1:C:965:TYR:O	2.64	0.45
1:C:2233:CYS:SG	1:C:2270:SER:HB2	2.56	0.45
1:C:2883:HIS:HB2	1:C:2908:TYR:CZ	2.52	0.45
1:C:3527:PRO:HD2	1:C:3573:MET:CE	2.46	0.45
1:A:309:THR:O	1:A:313:SER:N	2.49	0.45
1:A:972:LEU:HD22	1:A:975:VAL:HG21	1.98	0.45
1:A:3822:ASP:OD1	1:A:3823:LYS:N	2.49	0.45
2:H:3:GLN:NE2	2:H:75:THR:HB	2.31	0.45
1:B:2023:LEU:O	1:B:2028:ARG:NH2	2.49	0.45
1:B:2118:ARG:NH2	1:B:3719:ASP:OD1	2.44	0.45
1:B:2348:GLU:OE1	1:B:3852:LYS:NZ	2.49	0.45
1:B:3375:GLU:O	1:B:3379:LEU:HD13	2.17	0.45
1:B:4060:LYS:O	1:B:4063:ASP:OD1	2.35	0.45
1:B:4096:ALA:O	1:B:4100:GLN:HG2	2.17	0.45
1:D:939:VAL:HG13	1:D:1051:TYR:HB3	1.97	0.45
1:D:2992:GLU:HA	1:D:2995:ILE:HD12	1.98	0.45
1:D:4673:ARG:NH2	1:D:4702:ASP:OD1	2.49	0.45
1:C:3197:LEU:CD2	1:C:3201:MET:SD	3.05	0.45
1:C:4791:TYR:CZ	1:C:4818:MET:HE3	2.51	0.45
1:A:931:THR:HG21	1:A:991:ASN:ND2	2.31	0.45
1:A:1759:ARG:O	1:A:1759:ARG:HD2	2.16	0.45
1:A:3201:MET:O	1:A:3283:ARG:NH1	2.49	0.45
1:B:1792:ALA:O	1:B:2176:ASN:ND2	2.48	0.45
1:B:3755:GLU:O	1:B:3759:GLU:OE1	2.34	0.45
1:B:4720:VAL:O	1:B:4724:VAL:HG23	2.16	0.45
1:D:931:THR:HG21	1:D:991:ASN:ND2	2.31	0.45
1:D:2310:CYS:SG	1:D:2313:LEU:HD23	2.56	0.45
1:D:3106:MET:O	1:D:3110:LEU:HD13	2.16	0.45
1:D:3137:LEU:HB2	1:D:3138:PRO:HD3	1.99	0.45
1:C:233:ILE:O	1:C:257:ARG:NH1	2.49	0.45
1:C:835:ARG:NH2	1:C:1210:SER:O	2.50	0.45
1:A:710:ASP:OD1	1:A:713:SER:OG	2.28	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:796:ARG:O	1:A:1622:GLU:HA	2.16	0.45
1:A:2233:CYS:SG	1:A:2270:SER:HB2	2.56	0.45
1:A:2410:PRO:HG3	1:A:2415:ARG:HD2	1.98	0.45
1:A:2719:TYR:HB2	1:A:2953:LYS:NZ	2.32	0.45
1:A:4630:TYR:OH	1:B:4860:ARG:NH1	2.49	0.45
1:A:4678:ALA:HB1	1:A:4720:VAL:HG21	1.99	0.45
1:B:2608:MET:O	1:B:2612[B]:ARG:HG3	2.17	0.45
1:B:2911:LEU:HD13	1:B:2915:GLU:HB2	1.99	0.45
1:B:2992:GLU:HA	1:B:2995:ILE:HD12	1.98	0.45
1:B:3822:ASP:OD1	1:B:3823:LYS:N	2.49	0.45
1:D:901:LYS:HG3	1:D:903:LEU:HG	1.99	0.45
1:D:3018:LEU:HD21	1:D:3075:LEU:O	2.17	0.45
1:D:4096:ALA:O	1:D:4100:GLN:HG2	2.17	0.45
1:D:4690:GLU:O	1:D:4691:GLN:HB3	2.17	0.45
1:C:516:LYS:O	1:C:519:VAL:HG22	2.17	0.45
1:C:595:ARG:NH1	1:C:1643:GLU:OE2	2.44	0.45
1:C:860:GLN:O	1:C:860:GLN:HG2	2.17	0.45
1:C:917:GLU:OE1	1:C:917:GLU:N	2.48	0.45
1:C:1925:GLY:O	1:C:1929:MET:HG3	2.16	0.45
1:C:3866:ILE:O	1:C:3867:ASN:OD1	2.35	0.45
1:C:4678:ALA:HB1	1:C:4720:VAL:HG21	1.99	0.45
1:A:2186:MET:HE2	1:A:2234:ARG:C	2.36	0.45
1:A:3166:TYR:OH	1:A:3203:VAL:HG21	2.16	0.45
1:A:3268:HIS:ND1	1:A:3272:ILE:HD12	2.31	0.45
1:A:3866:ILE:O	1:A:3867:ASN:OD1	2.35	0.45
1:A:4096:ALA:O	1:A:4100:GLN:HG2	2.17	0.45
1:A:4631:PHE:HE2	1:A:4633:GLU:HG2	1.82	0.45
1:A:4673:ARG:NH2	1:A:4702:ASP:OD1	2.49	0.45
1:B:835:ARG:NH2	1:B:1210:SER:O	2.50	0.45
1:B:860:GLN:O	1:B:860:GLN:HG2	2.17	0.45
1:B:901:LYS:HG3	1:B:903:LEU:HG	1.98	0.45
1:B:2410:PRO:HG3	1:B:2415:ARG:HD2	1.97	0.45
1:B:3337:ARG:O	1:B:3340:VAL:HG22	2.16	0.45
1:B:4678:ALA:HB1	1:B:4720:VAL:HG21	1.99	0.45
1:D:1759:ARG:O	1:D:1759:ARG:HD2	2.16	0.45
1:D:2883:HIS:HB2	1:D:2908:TYR:CZ	2.52	0.45
1:D:4791:TYR:CZ	1:D:4818:MET:HE3	2.51	0.45
1:D:4985:LEU:HD12	1:D:4986:ALA:N	2.32	0.45
1:C:1577:ALA:O	1:C:1584:ARG:NH1	2.43	0.45
1:C:2310:CYS:SG	1:C:2313:LEU:HD23	2.56	0.45
1:C:2911:LEU:HD13	1:C:2915:GLU:HB2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3018:LEU:HD21	1:C:3075:LEU:O	2.17	0.45
1:C:4096:ALA:O	1:C:4100:GLN:HG2	2.17	0.45
1:A:553:ARG:NH2	1:A:555:GLU:OE2	2.47	0.45
1:A:2883:HIS:HB2	1:A:2908:TYR:CZ	2.52	0.45
1:A:2911:LEU:HD13	1:A:2915:GLU:HB2	1.99	0.45
1:A:3762:ARG:C	1:A:3766:GLN:NE2	2.69	0.45
1:A:4983:HIS:O	3:A:5301:ATP:N6	2.50	0.45
1:A:4985:LEU:HD12	1:A:4986:ALA:N	2.32	0.45
2:E:3:GLN:NE2	2:E:75:THR:HB	2.31	0.45
2:E:11:ASP:OD2	2:E:14:THR:OG1	2.15	0.45
2:H:23:VAL:HG22	2:H:47:LYS:HG2	1.99	0.45
1:B:972:LEU:HD22	1:B:975:VAL:HG21	1.98	0.45
1:B:3106:MET:O	1:B:3110:LEU:HD13	2.16	0.45
1:B:3946:GLN:HA	1:B:3949:ARG:CD	2.45	0.45
1:D:233:ILE:O	1:D:257:ARG:NH1	2.49	0.45
1:D:796:ARG:O	1:D:1622:GLU:HA	2.16	0.45
1:D:1925:GLY:O	1:D:1929:MET:HG3	2.16	0.45
1:D:2719:TYR:HB2	1:D:2953:LYS:NZ	2.32	0.45
1:D:2801:ASP:HA	1:D:2804:ILE:HG12	1.98	0.45
1:D:3316:LEU:HD21	1:D:3346:VAL:HG23	1.97	0.45
1:D:3866:ILE:O	1:D:3867:ASN:OD1	2.35	0.45
1:D:4631:PHE:HE2	1:D:4633:GLU:HG2	1.82	0.45
1:C:2336:ARG:HG2	1:C:2435:ARG:HD2	1.99	0.45
1:C:2608:MET:O	1:C:2612[B]:ARG:HG3	2.17	0.45
1:C:3316:LEU:HD21	1:C:3346:VAL:HG23	1.97	0.45
1:C:4911:LEU:HA	1:C:4914:VAL:HG22	1.97	0.45
1:A:213:TYR:HA	1:A:339:ILE:O	2.17	0.45
1:A:327:PRO:O	1:A:329:ARG:NH1	2.45	0.45
1:A:860:GLN:O	1:A:860:GLN:HG2	2.17	0.45
1:A:3197:LEU:CD2	1:A:3201:MET:SD	3.05	0.45
1:A:4720:VAL:O	1:A:4724:VAL:HG23	2.16	0.45
1:B:988:LEU:HB2	1:B:1039:LEU:HD21	1.99	0.45
1:B:3498:ARG:CZ	1:B:3501:ASP:HB2	2.47	0.45
1:B:4690:GLU:O	1:B:4691:GLN:HB3	2.17	0.45
1:D:1733:GLU:HG2	1:D:2201:LEU:HD23	1.99	0.45
1:D:3162:GLN:HE21	1:D:3203:VAL:HG11	1.80	0.45
1:D:3504:SER:O	1:D:3507:THR:OG1	2.22	0.45
1:D:3946:GLN:HA	1:D:3949:ARG:CD	2.45	0.45
1:D:4180:ARG:HD2	1:D:4981:GLU:HB3	1.99	0.45
1:D:4678:ALA:HB1	1:D:4720:VAL:HG21	1.99	0.45
1:D:4860:ARG:NH1	1:C:4630:TYR:OH	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:641:VAL:HG21	1:C:681:HIS:HD1	1.82	0.45
1:C:1733:GLU:HG2	1:C:2201:LEU:HD23	1.99	0.45
1:C:2719:TYR:HB2	1:C:2953:LYS:NZ	2.32	0.45
1:C:2724:GLU:HG3	1:C:2725:LYS:H	1.82	0.45
1:C:3201:MET:O	1:C:3283:ARG:NH1	2.49	0.45
1:A:179:TYR:OH	1:D:2359:ARG:NE	2.50	0.45
1:A:3765:TYR:CZ	1:A:4753:HIS:ND1	2.75	0.45
1:B:323:LEU:O	1:B:324:ASP:OD1	2.34	0.45
1:B:860:GLN:O	1:B:930:LYS:NZ	2.40	0.45
1:B:917:GLU:OE1	1:B:917:GLU:N	2.48	0.45
1:B:939:VAL:HG13	1:B:1051:TYR:HB3	1.97	0.45
1:B:1733:GLU:HG2	1:B:2201:LEU:HD23	1.99	0.45
1:B:2724:GLU:HG3	1:B:2725:LYS:H	1.82	0.45
1:B:3197:LEU:CD2	1:B:3201:MET:SD	3.05	0.45
1:D:1105:ALA:O	1:D:1189:LEU:N	2.50	0.45
1:D:1577:ALA:O	1:D:1584:ARG:NH1	2.43	0.45
1:D:3466:ASN:O	1:D:3470:LEU:HG	2.16	0.45
1:D:3577:ARG:NE	1:D:3584:GLU:OE2	2.44	0.45
1:C:2992:GLU:HA	1:C:2995:ILE:HD12	1.98	0.45
1:C:3137:LEU:HB2	1:C:3138:PRO:HD3	1.99	0.45
1:C:3230:LEU:HD23	1:C:3230:LEU:H	1.82	0.45
1:C:3732:SER:HA	1:C:3735:LEU:HD21	1.99	0.45
1:C:3734:HIS:HB2	1:C:3736:GLU:HG2	1.98	0.45
1:C:4901:ILE:HG13	1:C:4913:ARG:NH2	2.32	0.45
1:A:233:ILE:O	1:A:257:ARG:NH1	2.49	0.44
1:A:835:ARG:NH2	1:A:1210:SER:O	2.50	0.44
1:A:1461:ASP:OD2	1:A:1468:LYS:NZ	2.47	0.44
1:A:3395:ARG:CD	1:A:3454:GLU:CD	2.86	0.44
1:A:4041:ALA:O	1:A:4045:VAL:HG23	2.17	0.44
1:A:4060:LYS:O	1:A:4063:ASP:OD1	2.35	0.44
1:A:4586:PRO:CD	1:A:4629:TYR:CE2	3.00	0.44
1:A:4844:LEU:O	1:A:4847:VAL:HG22	2.17	0.44
1:A:4901:ILE:HG13	1:A:4913:ARG:NH2	2.32	0.44
2:G:23:VAL:HG22	2:G:47:LYS:HG2	1.99	0.44
1:B:233:ILE:HD12	1:B:242:ARG:HB3	1.99	0.44
1:B:2719:TYR:HB2	1:B:2953:LYS:NZ	2.32	0.44
1:B:2883:HIS:HB2	1:B:2908:TYR:CZ	2.52	0.44
1:B:3201:MET:O	1:B:3283:ARG:NH1	2.49	0.44
1:D:213:TYR:HA	1:D:339:ILE:O	2.17	0.44
1:D:2761:TYR:O	1:D:2765:LYS:CE	2.65	0.44
1:D:4844:LEU:O	1:D:4847:VAL:HG22	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4901:ILE:HG13	1:D:4913:ARG:NH2	2.32	0.44
1:C:3498:ARG:NH2	1:C:3501:ASP:HB2	2.32	0.44
1:C:3498:ARG:CZ	1:C:3501:ASP:HB2	2.47	0.44
1:A:2626:LEU:HD22	1:A:2640:PRO:HB3	2.00	0.44
1:A:3498:ARG:NH2	1:A:3501:ASP:HB2	2.32	0.44
1:B:2336:ARG:HG2	1:B:2435:ARG:HD2	1.99	0.44
1:B:3635:CYS:CB	1:B:3638:MET:HE2	2.47	0.44
1:B:3866:ILE:O	1:B:3867:ASN:OD1	2.35	0.44
1:D:155:LYS:HE3	1:D:156:GLN:HE22	1.82	0.44
1:D:917:GLU:OE1	1:D:917:GLU:N	2.48	0.44
1:D:988:LEU:HB2	1:D:1039:LEU:HD21	1.99	0.44
1:D:2608:MET:O	1:D:2612[B]:ARG:HG3	2.17	0.44
1:D:3375:GLU:O	1:D:3379:LEU:HD13	2.17	0.44
1:D:4219:PHE:CD1	1:D:4950:VAL:HG21	2.53	0.44
1:C:3319:ILE:O	1:C:3320:LEU:C	2.55	0.44
1:C:3395:ARG:CD	1:C:3454:GLU:CD	2.86	0.44
1:C:3445:TRP:O	1:C:3452:LYS:NZ	2.34	0.44
1:C:3635:CYS:CB	1:C:3638:MET:HE2	2.47	0.44
1:C:3755:GLU:O	1:C:3759:GLU:OE1	2.34	0.44
1:C:4586:PRO:CD	1:C:4629:TYR:CE2	3.00	0.44
1:A:1552:VAL:HG11	1:A:1562:ILE:HD13	2.00	0.44
1:A:2336:ARG:HG2	1:A:2435:ARG:HD2	1.99	0.44
1:A:3018:LEU:HD21	1:A:3075:LEU:O	2.17	0.44
2:F:23:VAL:HG22	2:F:47:LYS:HG2	1.99	0.44
1:B:451:TYR:CE2	1:B:474:ARG:HD2	2.53	0.44
1:B:2950:SER:O	1:B:2954:ARG:HG3	2.18	0.44
1:B:4586:PRO:HG3	1:B:4629:TYR:CE2	2.53	0.44
1:B:4844:LEU:O	1:B:4847:VAL:HG22	2.17	0.44
1:B:4901:ILE:HG13	1:B:4913:ARG:NH2	2.32	0.44
1:D:179:TYR:OH	1:C:2359:ARG:NE	2.51	0.44
1:D:641:VAL:HG21	1:D:681:HIS:HD1	1.82	0.44
1:D:2290:LEU:HD21	1:D:2295:LEU:HG	1.99	0.44
1:D:2354:VAL:O	1:D:2358:ILE:HG23	2.18	0.44
1:D:2482:ASP:C	1:D:2482:ASP:OD1	2.56	0.44
1:D:3498:ARG:CZ	1:D:3501:ASP:HB2	2.47	0.44
1:C:858:THR:HG21	1:C:927:GLU:OE2	2.16	0.44
1:C:1805:GLU:HG2	1:C:1806:ALA:N	2.33	0.44
1:C:2974:ILE:HD13	1:C:3049:LEU:CD1	2.46	0.44
1:C:3455:GLU:O	1:C:3459:VAL:HG23	2.18	0.44
1:C:4060:LYS:O	1:C:4063:ASP:OD1	2.35	0.44
1:A:516:LYS:O	1:A:519:VAL:HG22	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:707:VAL:HG12	1:A:715:GLY:HA3	1.99	0.44
1:A:1733:GLU:HG2	1:A:2201:LEU:HD23	1.99	0.44
1:A:1805:GLU:HG2	1:A:1806:ALA:N	2.33	0.44
1:A:3230:LEU:HD23	1:A:3230:LEU:H	1.82	0.44
1:A:3621:HIS:HB3	1:A:3623:LEU:HD12	2.00	0.44
2:E:23:VAL:HG22	2:E:47:LYS:HG2	1.99	0.44
1:B:1131:ARG:NH1	1:B:1178:ALA:O	2.47	0.44
1:D:516:LYS:O	1:D:519:VAL:HG22	2.17	0.44
1:D:2336:ARG:HG2	1:D:2435:ARG:HD2	1.99	0.44
1:D:2684:ASP:O	1:D:2688:HIS:ND1	2.39	0.44
1:D:3230:LEU:HD23	1:D:3230:LEU:H	1.82	0.44
1:D:3732:SER:HA	1:D:3735:LEU:HD21	1.99	0.44
1:D:3734:HIS:HB2	1:D:3736:GLU:HG2	1.98	0.44
1:D:4041:ALA:O	1:D:4045:VAL:HG23	2.17	0.44
1:D:4060:LYS:O	1:D:4063:ASP:OD1	2.35	0.44
1:D:4586:PRO:HG3	1:D:4629:TYR:CE2	2.53	0.44
1:C:2761:TYR:O	1:C:2765:LYS:CE	2.65	0.44
1:C:4586:PRO:HG3	1:C:4629:TYR:CE2	2.53	0.44
1:A:2513:GLU:OE1	1:A:2513:GLU:N	2.51	0.44
1:A:2660:GLY:HA3	1:A:2666:VAL:HG12	2.00	0.44
1:A:3375:GLU:O	1:A:3379:LEU:HD13	2.17	0.44
1:A:3498:ARG:CZ	1:A:3501:ASP:HB2	2.47	0.44
1:A:3734:HIS:HB2	1:A:3736:GLU:HG2	1.98	0.44
1:A:4586:PRO:HG3	1:A:4629:TYR:CE2	2.53	0.44
1:A:4690:GLU:O	1:A:4691:GLN:HB3	2.17	0.44
1:B:213:TYR:HA	1:B:339:ILE:O	2.17	0.44
1:B:3592:ILE:HD12	1:B:3592:ILE:H	1.82	0.44
1:B:4180:ARG:HD2	1:B:4981:GLU:HB3	1.99	0.44
1:D:451:TYR:CE2	1:D:474:ARG:HD2	2.53	0.44
1:D:1805:GLU:HG2	1:D:1806:ALA:N	2.33	0.44
1:D:3395:ARG:CD	1:D:3454:GLU:CD	2.86	0.44
1:D:3589:PRO:O	1:D:3593:VAL:HG13	2.18	0.44
1:D:3621:HIS:HB3	1:D:3623:LEU:HD12	2.00	0.44
1:C:155:LYS:HE3	1:C:156:GLN:HE22	1.83	0.44
1:C:707:VAL:HG12	1:C:715:GLY:HA3	1.99	0.44
1:C:988:LEU:HB2	1:C:1039:LEU:HD21	1.99	0.44
1:C:2290:LEU:HD21	1:C:2295:LEU:HG	2.00	0.44
1:C:2626:LEU:HD22	1:C:2640:PRO:HB3	2.00	0.44
1:C:3375:GLU:O	1:C:3379:LEU:HD13	2.17	0.44
1:C:3589:PRO:O	1:C:3593:VAL:HG13	2.18	0.44
1:C:3592:ILE:HD12	1:C:3592:ILE:H	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4985:LEU:HD12	1:C:4986:ALA:N	2.32	0.44
1:A:2724:GLU:HG3	1:A:2725:LYS:H	1.82	0.44
1:A:4180:ARG:HD2	1:A:4981:GLU:HB3	1.99	0.44
2:F:88:PRO:O	2:F:90:ILE:HD12	2.18	0.44
1:B:2359:ARG:NE	1:C:179:TYR:OH	2.51	0.44
1:B:3589:PRO:O	1:B:3593:VAL:HG13	2.18	0.44
1:B:3621:HIS:HB3	1:B:3623:LEU:HD12	2.00	0.44
1:B:4219:PHE:CD1	1:B:4950:VAL:HG21	2.53	0.44
1:D:234:SER:OG	1:D:238:SER:OG	2.27	0.44
1:D:2522:LEU:HD23	1:D:2582:MET:HE1	2.00	0.44
1:D:2605:ASP:HA	1:D:2608:MET:CE	2.35	0.44
1:D:3319:ILE:O	1:D:3320:LEU:C	2.55	0.44
1:D:3455:GLU:O	1:D:3459:VAL:HG23	2.18	0.44
1:C:233:ILE:HD12	1:C:242:ARG:HB3	1.99	0.44
1:C:1105:ALA:O	1:C:1189:LEU:N	2.50	0.44
1:C:2283:ASN:OD1	1:C:2285:GLU:HB2	2.18	0.44
1:C:3762:ARG:C	1:C:3766:GLN:NE2	2.69	0.44
1:A:2354:VAL:O	1:A:2358:ILE:HG23	2.18	0.44
1:A:3318:ASN:C	1:A:3321:ARG:H	2.20	0.44
1:A:3603:LEU:O	1:A:3607:GLU:OE1	2.36	0.44
1:B:1552:VAL:HG11	1:B:1562:ILE:HD13	2.00	0.44
1:B:1805:GLU:HG2	1:B:1806:ALA:N	2.33	0.44
1:B:3734:HIS:HB2	1:B:3736:GLU:HG2	1.98	0.44
1:B:4586:PRO:CD	1:B:4629:TYR:CE2	3.00	0.44
1:B:4630:TYR:OH	1:C:4860:ARG:NH1	2.50	0.44
1:B:4985:LEU:HD12	1:B:4986:ALA:N	2.32	0.44
1:D:2911:LEU:HD13	1:D:2915:GLU:HB2	1.99	0.44
1:D:3635:CYS:CB	1:D:3638:MET:HE2	2.47	0.44
1:D:3901:ASN:OD1	1:D:3904:ARG:NH1	2.44	0.44
1:C:1552:VAL:HG11	1:C:1562:ILE:HD13	2.00	0.44
1:C:2348:GLU:OE1	1:C:3852:LYS:NZ	2.49	0.44
1:A:451:TYR:CE2	1:A:474:ARG:HD2	2.53	0.44
1:A:901:LYS:HG3	1:A:903:LEU:HG	1.99	0.44
1:A:908:VAL:O	1:A:909:ASN:HB2	2.18	0.44
1:A:2440:MET:O	1:A:2444:GLN:OE1	2.36	0.44
1:A:2761:TYR:O	1:A:2765:LYS:CE	2.65	0.44
1:A:3319:ILE:O	1:A:3320:LEU:C	2.55	0.44
1:A:4219:PHE:CD1	1:A:4950:VAL:HG21	2.53	0.44
2:E:2:VAL:HG22	2:E:58:GLY:HA2	2.00	0.44
2:E:88:PRO:O	2:E:90:ILE:HD12	2.18	0.44
2:H:2:VAL:HG22	2:H:58:GLY:HA2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:88:PRO:O	2:H:90:ILE:HD12	2.18	0.44
2:G:77:SER:OG	2:G:79:ASP:OD1	2.28	0.44
1:B:384:MET:SD	1:C:166:GLY:HA3	2.58	0.44
1:B:1577:ALA:O	1:B:1584:ARG:NH1	2.43	0.44
1:B:2513:GLU:OE1	1:B:2513:GLU:N	2.51	0.44
1:B:3137:LEU:HB2	1:B:3138:PRO:HD3	1.99	0.44
1:B:3732:SER:HA	1:B:3735:LEU:HD21	1.99	0.44
1:B:4190:ILE:HB	1:B:5031:GLN:OE1	2.18	0.44
1:B:4631:PHE:HE2	1:B:4633:GLU:HG2	1.82	0.44
1:D:323:LEU:O	1:D:324:ASP:OD1	2.34	0.44
1:D:2283:ASN:OD1	1:D:2285:GLU:HB2	2.18	0.44
1:D:2440:MET:O	1:D:2444:GLN:OE1	2.36	0.44
1:D:2724:GLU:HG3	1:D:2725:LYS:H	1.82	0.44
1:C:4041:ALA:O	1:C:4045:VAL:HG23	2.17	0.44
1:C:4631:PHE:HE2	1:C:4633:GLU:HG2	1.82	0.44
1:C:4690:GLU:O	1:C:4691:GLN:HB3	2.17	0.44
1:A:641:VAL:HG21	1:A:681:HIS:HD1	1.82	0.44
1:A:2290:LEU:HD21	1:A:2295:LEU:HG	1.99	0.44
1:A:2309:SER:HB2	1:A:2321:ILE:O	2.18	0.44
1:A:2482:ASP:C	1:A:2482:ASP:OD1	2.56	0.44
1:B:595:ARG:NH1	1:B:1643:GLU:OE2	2.44	0.44
1:B:641:VAL:HG21	1:B:681:HIS:HD1	1.82	0.44
1:B:1742:THR:O	1:B:1960:ALA:HB2	2.17	0.44
1:B:2482:ASP:OD1	1:B:2482:ASP:C	2.56	0.44
1:B:2788:HIS:HB3	1:B:2791:LEU:HD23	2.00	0.44
1:D:155:LYS:HE2	1:C:228:ASP:OD2	2.18	0.44
1:D:4586:PRO:CD	1:D:4629:TYR:CE2	3.00	0.44
1:D:4655:PHE:HE2	1:D:4659:ILE:HD11	1.81	0.44
1:C:908:VAL:O	1:C:909:ASN:HB2	2.18	0.44
1:C:1742:THR:O	1:C:1960:ALA:HB2	2.17	0.44
1:C:2001:PRO:O	1:C:2005:GLN:HG3	2.18	0.44
1:C:2309:SER:HB2	1:C:2321:ILE:O	2.18	0.44
1:C:2950:SER:O	1:C:2954:ARG:HG3	2.18	0.44
1:C:3386:GLU:O	1:C:3389:GLU:O	2.36	0.44
1:C:4695:ASP:O	1:C:4695:ASP:OD2	2.36	0.44
1:A:2229:VAL:CG1	1:A:2267:MET:CE	2.93	0.43
1:A:2950:SER:O	1:A:2954:ARG:HG3	2.18	0.43
1:A:3435:PHE:CD2	1:A:3524:MET:HE1	2.52	0.43
1:A:3946:GLN:NE2	1:A:3949:ARG:HH21	2.15	0.43
1:B:516:LYS:O	1:B:519:VAL:HG22	2.17	0.43
1:B:2660:GLY:HA3	1:B:2666:VAL:HG12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2761:TYR:O	1:B:2765:LYS:CE	2.65	0.43
1:D:707:VAL:HG12	1:D:715:GLY:HA3	1.99	0.43
1:D:783:PHE:HB2	1:D:787:VAL:HG21	2.00	0.43
1:D:1742:THR:O	1:D:1960:ALA:HB2	2.17	0.43
1:D:3946:GLN:NE2	1:D:3949:ARG:HH21	2.15	0.43
1:D:4170:ILE:H	1:D:4170:ILE:HD12	1.83	0.43
1:D:4744:ASP:O	1:D:4748:LEU:CD1	2.66	0.43
1:C:451:TYR:CE2	1:C:474:ARG:HD2	2.53	0.43
1:C:4180:ARG:HD2	1:C:4981:GLU:HB3	1.99	0.43
1:A:228:ASP:OD2	1:B:155:LYS:HE2	2.18	0.43
1:A:3104:GLU:O	1:A:3107:VAL:HG22	2.19	0.43
1:A:3589:PRO:O	1:A:3593:VAL:HG13	2.18	0.43
1:A:4190:ILE:HB	1:A:5031:GLN:OE1	2.18	0.43
1:B:228:ASP:OD2	1:C:155:LYS:HE2	2.18	0.43
1:B:2440:MET:O	1:B:2444:GLN:OE1	2.36	0.43
1:B:3395:ARG:CD	1:B:3454:GLU:CD	2.86	0.43
1:B:3603:LEU:O	1:B:3607:GLU:OE1	2.36	0.43
1:B:3901:ASN:OD1	1:B:3904:ARG:NH1	2.44	0.43
1:B:4744:ASP:O	1:B:4748:LEU:CD1	2.66	0.43
1:D:860:GLN:HG2	1:D:860:GLN:O	2.17	0.43
1:D:1131:ARG:NH1	1:D:1178:ALA:O	2.47	0.43
1:D:1552:VAL:HG11	1:D:1562:ILE:HD13	2.00	0.43
1:D:2668:SER:O	1:D:2669:GLU:HB2	2.19	0.43
1:D:2928:LYS:O	1:D:2932:MET:HG2	2.18	0.43
1:D:3104:GLU:O	1:D:3107:VAL:HG22	2.19	0.43
1:D:3498:ARG:NH2	1:D:3501:ASP:HB2	2.32	0.43
1:D:3592:ILE:HD12	1:D:3592:ILE:H	1.82	0.43
1:D:4222:VAL:HG11	1:D:4950:VAL:HA	2.00	0.43
1:C:1805:GLU:O	1:C:1808:ARG:HG2	2.18	0.43
1:C:2186:MET:HE2	1:C:2234:ARG:C	2.38	0.43
1:C:2788:HIS:HB3	1:C:2791:LEU:HD23	2.00	0.43
1:C:4844:LEU:O	1:C:4847:VAL:HG22	2.17	0.43
1:A:2283:ASN:OD1	1:A:2285:GLU:HB2	2.18	0.43
1:A:3197:LEU:HD23	1:A:3201:MET:SD	2.59	0.43
1:A:4744:ASP:O	1:A:4748:LEU:CD1	2.66	0.43
2:H:26:TYR:HA	2:H:100:ASP:O	2.19	0.43
2:G:88:PRO:O	2:G:90:ILE:HD12	2.18	0.43
1:B:961:MET:CE	1:B:967:PRO:HD3	2.44	0.43
1:B:2894:LEU:O	1:B:2898:GLY:N	2.48	0.43
1:B:3455:GLU:O	1:B:3459:VAL:HG23	2.18	0.43
1:B:3498:ARG:NH2	1:B:3501:ASP:HB2	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3718:GLU:OE2	1:B:3723:MET:HE1	2.17	0.43
1:D:233:ILE:HD12	1:D:242:ARG:HB3	1.99	0.43
1:D:2001:PRO:O	1:D:2005:GLN:HG3	2.18	0.43
1:D:2309:SER:HB2	1:D:2321:ILE:O	2.18	0.43
1:D:2626:LEU:HD22	1:D:2640:PRO:HB3	2.00	0.43
1:D:3762:ARG:C	1:D:3766:GLN:NE2	2.69	0.43
1:D:4943:LEU:O	1:D:4947:GLN:HG2	2.19	0.43
1:C:2482:ASP:C	1:C:2482:ASP:OD1	2.56	0.43
1:C:2673:HIS:ND1	1:C:2716:ASP:OD2	2.46	0.43
1:C:3329:ILE:HD11	1:C:3332:ALA:HB2	2.00	0.43
1:A:3732:SER:HA	1:A:3735:LEU:HD21	1.99	0.43
1:A:4170:ILE:HD12	1:A:4170:ILE:H	1.83	0.43
1:A:4929:LEU:C	1:A:4933:GLN:OE1	2.57	0.43
1:B:2858:GLN:O	1:B:2860:PRO:HD3	2.18	0.43
1:B:2906:VAL:HG23	1:B:2911:LEU:HD23	2.00	0.43
1:B:3230:LEU:HD23	1:B:3230:LEU:H	1.82	0.43
1:B:3750:GLU:OE1	1:B:3750:GLU:N	2.52	0.43
1:D:2014:ASP:O	1:D:2015:GLU:HB3	2.19	0.43
1:D:4929:LEU:C	1:D:4933:GLN:OE1	2.57	0.43
1:D:4983:HIS:O	3:D:5301:ATP:N6	2.50	0.43
1:C:2440:MET:O	1:C:2444:GLN:OE1	2.36	0.43
1:C:2490:MET:CG	1:C:2545:GLU:OE1	2.67	0.43
1:C:2523:ASP:OD1	1:C:2524:VAL:N	2.52	0.43
1:C:3621:HIS:HB3	1:C:3623:LEU:HD12	2.00	0.43
1:C:3750:GLU:OE1	1:C:3750:GLU:N	2.52	0.43
1:C:4095:LYS:HA	1:C:4098:ASP:OD2	2.19	0.43
1:C:4219:PHE:CD1	1:C:4950:VAL:HG21	2.53	0.43
1:C:4744:ASP:O	1:C:4748:LEU:CD1	2.66	0.43
1:A:1805:GLU:O	1:A:1808:ARG:HG2	2.18	0.43
1:A:2668:SER:O	1:A:2669:GLU:HB2	2.19	0.43
1:A:2677:LYS:HE2	1:A:2910:THR:HG22	2.00	0.43
1:A:2889:LYS:O	1:A:2893:GLU:OE1	2.37	0.43
1:A:3455:GLU:O	1:A:3459:VAL:HG23	2.18	0.43
1:A:3592:ILE:HD12	1:A:3592:ILE:H	1.82	0.43
1:A:3634:ALA:O	1:A:3638:MET:HG3	2.19	0.43
1:A:3635:CYS:CB	1:A:3638:MET:HE2	2.47	0.43
1:B:155:LYS:HE3	1:B:156:GLN:HE22	1.82	0.43
1:B:707:VAL:HG12	1:B:715:GLY:HA3	1.99	0.43
1:B:2290:LEU:HD21	1:B:2295:LEU:HG	1.99	0.43
1:B:2354:VAL:O	1:B:2358:ILE:HG23	2.18	0.43
1:B:3946:GLN:NE2	1:B:3949:ARG:HH21	2.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4041:ALA:O	1:B:4045:VAL:HG23	2.17	0.43
1:D:308:HIS:O	1:D:310:LYS:N	2.46	0.43
1:D:1805:GLU:O	1:D:1808:ARG:HG2	2.18	0.43
1:D:2348:GLU:OE1	1:D:3852:LYS:NZ	2.49	0.43
1:D:2490:MET:CG	1:D:2545:GLU:OE1	2.67	0.43
1:D:2788:HIS:HB3	1:D:2791:LEU:HD23	2.00	0.43
1:D:2950:SER:O	1:D:2954:ARG:HG3	2.18	0.43
1:C:1057:ASP:OD1	1:C:1057:ASP:N	2.52	0.43
1:C:2858:GLN:O	1:C:2860:PRO:HD3	2.18	0.43
1:C:2889:LYS:O	1:C:2893:GLU:OE1	2.37	0.43
1:C:3527:PRO:HD2	1:C:3573:MET:HE1	2.00	0.43
1:C:3946:GLN:NE2	1:C:3949:ARG:HH21	2.15	0.43
1:A:155:LYS:HE3	1:A:156:GLN:HE22	1.82	0.43
1:A:233:ILE:HD12	1:A:242:ARG:HB3	1.99	0.43
1:A:783:PHE:HB2	1:A:787:VAL:HG21	2.00	0.43
1:A:1742:THR:O	1:A:1960:ALA:HB2	2.17	0.43
1:A:2118:ARG:NH2	1:A:3719:ASP:OD1	2.44	0.43
1:A:3386:GLU:O	1:A:3389:GLU:O	2.36	0.43
2:F:26:TYR:HA	2:F:100:ASP:O	2.19	0.43
1:B:2150:GLU:HG2	1:B:2151:ASP:N	2.34	0.43
1:B:2523:ASP:OD1	1:B:2524:VAL:N	2.52	0.43
1:B:2626:LEU:HD22	1:B:2640:PRO:HB3	2.00	0.43
1:B:3386:GLU:O	1:B:3389:GLU:O	2.36	0.43
1:B:4929:LEU:C	1:B:4933:GLN:OE1	2.57	0.43
1:B:4944:ARG:NE	1:C:4938:ASP:OD1	2.52	0.43
1:D:166:GLY:HA3	1:C:384:MET:SD	2.59	0.43
1:D:1057:ASP:N	1:D:1057:ASP:OD1	2.52	0.43
1:D:2513:GLU:OE1	1:D:2513:GLU:N	2.51	0.43
1:D:2660:GLY:HA3	1:D:2666:VAL:HG12	2.00	0.43
1:D:3197:LEU:HD23	1:D:3201:MET:SD	2.59	0.43
1:D:3750:GLU:N	1:D:3750:GLU:OE1	2.52	0.43
1:D:3971:GLY:N	1:D:3972:PRO:HA	2.34	0.43
1:D:4095:LYS:HA	1:D:4098:ASP:OD2	2.19	0.43
1:D:4190:ILE:HB	1:D:5031:GLN:OE1	2.18	0.43
1:C:41:GLY:O	1:C:45:ARG:NH1	2.52	0.43
1:C:1823:GLY:O	1:C:1825:HIS:ND1	2.51	0.43
1:C:2354:VAL:O	1:C:2358:ILE:HG23	2.18	0.43
1:C:2668:SER:O	1:C:2669:GLU:HB2	2.19	0.43
1:C:4170:ILE:H	1:C:4170:ILE:HD12	1.83	0.43
1:A:1669:LEU:O	1:A:1673:VAL:HG22	2.19	0.43
1:A:1823:GLY:O	1:A:1825:HIS:ND1	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2858:GLN:O	1:A:2860:PRO:HD3	2.18	0.43
1:A:3152:PHE:O	1:A:3156:VAL:HG23	2.19	0.43
1:A:3750:GLU:OE1	1:A:3750:GLU:N	2.52	0.43
1:A:4222:VAL:HG11	1:A:4950:VAL:HA	2.00	0.43
2:E:26:TYR:HA	2:E:100:ASP:O	2.19	0.43
2:G:2:VAL:HG22	2:G:58:GLY:HA2	2.00	0.43
1:B:1057:ASP:OD1	1:B:1057:ASP:N	2.52	0.43
1:B:2014:ASP:O	1:B:2015:GLU:HB3	2.19	0.43
1:B:2577:ILE:H	1:B:2577:ILE:HD12	1.84	0.43
1:B:2677:LYS:HE2	1:B:2910:THR:HG22	2.00	0.43
1:B:2699:ALA:O	1:B:2702:CYS:HB3	2.19	0.43
1:B:3197:LEU:HD23	1:B:3201:MET:SD	2.59	0.43
1:B:3321:ARG:HH11	1:B:3321:ARG:CG	2.13	0.43
1:D:1828:ASP:N	1:D:1828:ASP:OD1	2.48	0.43
1:D:2225:PHE:N	1:D:2226:PRO:CD	2.82	0.43
1:D:2577:ILE:HD12	1:D:2577:ILE:H	1.84	0.43
1:D:3111:ARG:HH12	1:D:3175:LEU:HD12	1.84	0.43
1:D:3603:LEU:O	1:D:3607:GLU:OE1	2.36	0.43
1:D:4695:ASP:O	1:D:4695:ASP:OD2	2.36	0.43
1:C:4929:LEU:C	1:C:4933:GLN:OE1	2.57	0.43
1:C:4983:HIS:O	3:C:5301:ATP:N6	2.50	0.43
1:A:2001:PRO:O	1:A:2005:GLN:HG3	2.18	0.43
1:A:2929:PHE:HA	1:A:2932:MET:HE1	1.98	0.43
1:A:3087:ILE:H	1:A:3087:ILE:HD12	1.84	0.43
1:A:4666:VAL:N	1:A:4667:PRO:CD	2.82	0.43
2:F:2:VAL:HG22	2:F:58:GLY:HA2	2.00	0.43
1:B:598:LYS:O	1:B:602:VAL:HG23	2.19	0.43
1:B:908:VAL:O	1:B:909:ASN:HB2	2.18	0.43
1:B:4095:LYS:HA	1:B:4098:ASP:OD2	2.19	0.43
1:B:4666:VAL:N	1:B:4667:PRO:CD	2.82	0.43
1:B:4946:GLN:O	1:B:4950:VAL:HG23	2.19	0.43
1:D:1000:ARG:HB3	1:D:1021:LEU:HD11	2.01	0.43
1:D:2677:LYS:HE2	1:D:2910:THR:HG22	2.00	0.43
1:D:2889:LYS:O	1:D:2893:GLU:OE1	2.37	0.43
1:C:2906:VAL:HG23	1:C:2911:LEU:HD23	2.00	0.43
1:C:3996:PHE:HD1	1:C:4016:LEU:HD11	1.83	0.43
1:A:1057:ASP:N	1:A:1057:ASP:OD1	2.52	0.43
1:A:2199:ARG:NH1	1:A:2245:GLN:HB3	2.34	0.43
1:A:2523:ASP:OD1	1:A:2524:VAL:N	2.52	0.43
1:A:2788:HIS:HB3	1:A:2791:LEU:HD23	2.00	0.43
1:A:3111:ARG:HH12	1:A:3175:LEU:HD12	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4695:ASP:O	1:A:4695:ASP:OD2	2.36	0.43
2:E:57:ARG:O	2:E:58:GLY:C	2.56	0.43
2:G:26:TYR:HA	2:G:100:ASP:O	2.19	0.43
1:B:41:GLY:O	1:B:45:ARG:NH1	2.52	0.43
1:B:1256:GLU:HB2	1:B:1275:ARG:HE	1.84	0.43
1:B:1669:LEU:O	1:B:1673:VAL:HG22	2.19	0.43
1:B:2490:MET:CG	1:B:2545:GLU:OE1	2.67	0.43
1:B:2668:SER:O	1:B:2669:GLU:HB2	2.19	0.43
1:B:2974:ILE:HD13	1:B:3049:LEU:CD1	2.46	0.43
1:B:3104:GLU:O	1:B:3107:VAL:HG22	2.19	0.43
1:B:3111:ARG:HH12	1:B:3175:LEU:HD12	1.84	0.43
1:B:3991:GLY:O	1:B:3995:VAL:HG23	2.19	0.43
1:B:4170:ILE:H	1:B:4170:ILE:HD12	1.83	0.43
1:D:953:THR:OG1	1:D:969:PRO:O	2.24	0.43
1:D:1987:SER:O	1:D:1991:THR:HG23	2.19	0.43
1:D:3386:GLU:O	1:D:3389:GLU:O	2.36	0.43
1:C:336:PRO:HA	1:C:337:PRO:HD3	1.92	0.43
1:C:783:PHE:HB2	1:C:787:VAL:HG21	2.00	0.43
1:C:1123:VAL:HG23	1:C:1132:TRP:HB2	2.01	0.43
1:C:2097:LEU:HD12	1:C:2100[B]:HIS:CE1	2.54	0.43
1:C:2677:LYS:HE2	1:C:2910:THR:HG22	2.00	0.43
1:C:2736:ASP:O	1:C:2738:ARG:HD3	2.19	0.43
1:C:2894:LEU:O	1:C:2898:GLY:N	2.48	0.43
1:C:2928:LYS:O	1:C:2932:MET:HG2	2.18	0.43
1:C:3111:ARG:HH12	1:C:3175:LEU:HD12	1.84	0.43
1:C:3603:LEU:O	1:C:3607:GLU:OE1	2.36	0.43
1:C:4222:VAL:HG11	1:C:4950:VAL:HA	2.00	0.43
1:C:4666:VAL:N	1:C:4667:PRO:CD	2.82	0.43
1:C:4943:LEU:O	1:C:4947:GLN:HG2	2.19	0.43
1:C:4946:GLN:O	1:C:4950:VAL:HG23	2.19	0.43
1:A:41:GLY:O	1:A:45:ARG:NH1	2.52	0.43
1:A:867:LEU:HD13	1:A:929:LEU:HD12	2.01	0.43
1:A:3392:LEU:O	1:A:3395:ARG:HB3	2.19	0.43
1:A:3613:TYR:O	1:A:3617:LYS:NZ	2.36	0.43
1:A:4000:MET:HG2	1:A:4013:LEU:HD11	2.01	0.43
1:B:1105:ALA:O	1:B:1189:LEU:N	2.50	0.43
1:B:2097:LEU:HD12	1:B:2100[B]:HIS:CE1	2.54	0.43
1:B:2225:PHE:N	1:B:2226:PRO:CD	2.82	0.43
1:B:2889:LYS:O	1:B:2893:GLU:OE1	2.37	0.43
1:B:3018:LEU:HD21	1:B:3075:LEU:O	2.17	0.43
1:B:4695:ASP:O	1:B:4695:ASP:OD2	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:451:TYR:CZ	1:D:474:ARG:HD2	2.54	0.43
1:D:1446:SER:O	1:D:1496:TRP:NE1	2.41	0.43
1:D:2118:ARG:NH2	1:D:3719:ASP:OD1	2.44	0.43
1:D:2799:GLU:O	1:D:2803:GLU:OE1	2.37	0.43
1:D:4666:VAL:N	1:D:4667:PRO:CD	2.82	0.43
1:C:1987:SER:O	1:C:1991:THR:HG23	2.19	0.43
1:C:2199:ARG:NH1	1:C:2245:GLN:HB3	2.34	0.43
1:C:2790:MET:HE2	1:C:2797:PHE:HE1	1.84	0.43
1:C:3104:GLU:O	1:C:3107:VAL:HG22	2.19	0.43
1:C:3152:PHE:O	1:C:3156:VAL:HG23	2.19	0.43
1:C:3971:GLY:N	1:C:3972:PRO:HA	2.34	0.43
1:C:4190:ILE:HB	1:C:5031:GLN:OE1	2.18	0.43
1:A:790:ARG:HA	1:A:1626:TRP:O	2.19	0.42
1:A:2150:GLU:HG2	1:A:2151:ASP:N	2.34	0.42
1:A:2799:GLU:O	1:A:2803:GLU:OE1	2.37	0.42
1:A:2928:LYS:O	1:A:2932:MET:HG2	2.18	0.42
1:A:3409:TYR:N	1:A:3410:PRO:HD2	2.34	0.42
1:A:3991:GLY:O	1:A:3995:VAL:HG23	2.19	0.42
1:A:4943:LEU:O	1:A:4947:GLN:HG2	2.19	0.42
1:B:783:PHE:HB2	1:B:787:VAL:HG21	2.00	0.42
1:B:867:LEU:HD13	1:B:929:LEU:HD12	2.01	0.42
1:B:1823:GLY:O	1:B:1825:HIS:ND1	2.51	0.42
1:B:1987:SER:O	1:B:1991:THR:HG23	2.19	0.42
1:B:2185:ILE:HD13	1:B:2203:MET:CE	2.49	0.42
1:B:2736:ASP:O	1:B:2738:ARG:HD3	2.19	0.42
1:B:3392:LEU:O	1:B:3395:ARG:HB3	2.19	0.42
1:B:3634:ALA:O	1:B:3638:MET:HG3	2.19	0.42
1:D:908:VAL:O	1:D:909:ASN:HB2	2.18	0.42
1:D:2858:GLN:O	1:D:2860:PRO:HD3	2.18	0.42
1:D:3152:PHE:O	1:D:3156:VAL:HG23	2.19	0.42
1:D:4731:ILE:HG13	1:D:4732:PHE:N	2.34	0.42
1:C:327:PRO:O	1:C:329:ARG:NH1	2.45	0.42
1:C:1769:THR:N	1:C:1956:GLU:OE2	2.52	0.42
1:C:2014:ASP:O	1:C:2015:GLU:HB3	2.19	0.42
1:C:2699:ALA:O	1:C:2702:CYS:HB3	2.19	0.42
1:C:2799:GLU:O	1:C:2803:GLU:OE1	2.37	0.42
1:C:3210:LEU:HD13	1:C:3304:CYS:O	2.19	0.42
1:A:953:THR:OG1	1:A:969:PRO:O	2.24	0.42
1:A:2097:LEU:HD12	1:A:2100[B]:HIS:CE1	2.54	0.42
1:A:2225:PHE:N	1:A:2226:PRO:CD	2.82	0.42
1:A:2902:HIS:CE1	1:A:2904:LEU:HB3	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2906:VAL:HG23	1:A:2911:LEU:HD23	2.00	0.42
2:G:90:ILE:HD11	1:C:1684:ALA:HA	2.01	0.42
1:B:451:TYR:CZ	1:B:474:ARG:HD2	2.54	0.42
1:B:575:LEU:HA	1:B:578:ILE:HG12	2.01	0.42
1:B:2001:PRO:O	1:B:2005:GLN:HG3	2.18	0.42
1:B:2283:ASN:OD1	1:B:2285:GLU:HB2	2.18	0.42
1:B:3087:ILE:HD12	1:B:3087:ILE:H	1.84	0.42
1:B:3971:GLY:N	1:B:3972:PRO:HA	2.34	0.42
1:B:4000:MET:HG2	1:B:4013:LEU:HD11	2.01	0.42
1:D:76:ARG:O	1:D:80:GLU:HG2	2.19	0.42
1:D:1123:VAL:HG23	1:D:1132:TRP:HB2	2.01	0.42
1:D:2097:LEU:HD12	1:D:2100[B]:HIS:CE1	2.54	0.42
1:D:2523:ASP:OD1	1:D:2524:VAL:N	2.52	0.42
1:D:2906:VAL:HG23	1:D:2911:LEU:HD23	2.00	0.42
1:D:3087:ILE:H	1:D:3087:ILE:HD12	1.84	0.42
1:D:3392:LEU:O	1:D:3395:ARG:HB3	2.19	0.42
1:D:4585:SER:O	1:D:4629:TYR:HD2	2.02	0.42
1:D:4938:ASP:OD1	1:C:4944:ARG:NE	2.51	0.42
1:D:4946:GLN:O	1:D:4950:VAL:HG23	2.19	0.42
1:C:598:LYS:O	1:C:602:VAL:HG23	2.19	0.42
1:C:842:PRO:O	1:C:1196:PRO:HA	2.19	0.42
1:C:1112:ASP:OD1	1:C:1113:VAL:N	2.52	0.42
1:A:2035:HIS:ND1	1:A:3657:TYR:OH	2.36	0.42
1:A:2874:MET:SD	1:A:2939:ARG:O	2.78	0.42
1:A:3971:GLY:N	1:A:3972:PRO:HA	2.34	0.42
1:B:2199:ARG:NH1	1:B:2245:GLN:HB3	2.34	0.42
1:B:2874:MET:SD	1:B:2939:ARG:O	2.78	0.42
1:B:3329:ILE:HD11	1:B:3332:ALA:HB2	2.00	0.42
1:B:3534:MET:O	1:B:3538:THR:HG23	2.20	0.42
1:B:4943:LEU:O	1:B:4947:GLN:HG2	2.19	0.42
1:D:41:GLY:O	1:D:45:ARG:NH1	2.52	0.42
1:D:2199:ARG:NH1	1:D:2245:GLN:HB3	2.34	0.42
1:D:2229:VAL:CG2	1:D:2267:MET:HE1	2.49	0.42
1:D:2699:ALA:O	1:D:2702:CYS:HB3	2.19	0.42
1:D:3634:ALA:O	1:D:3638:MET:HG3	2.19	0.42
1:C:451:TYR:CZ	1:C:474:ARG:HD2	2.54	0.42
1:C:3392:LEU:O	1:C:3395:ARG:HB3	2.19	0.42
1:A:1000:ARG:HB3	1:A:1021:LEU:HD11	2.01	0.42
1:A:1705:GLY:HA3	1:A:1836:PHE:CD2	2.55	0.42
1:A:2185:ILE:HD13	1:A:2203:MET:CE	2.49	0.42
1:A:2874:MET:SD	1:A:2939:ARG:C	2.98	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3329:ILE:HD11	1:A:3332:ALA:HB2	2.00	0.42
1:A:3414:ARG:NH2	1:A:3472:ALA:HB3	2.35	0.42
1:A:4095:LYS:HA	1:A:4098:ASP:OD2	2.19	0.42
1:A:4585:SER:O	1:A:4629:TYR:HD2	2.02	0.42
1:B:790:ARG:HA	1:B:1626:TRP:O	2.19	0.42
1:B:2309:SER:HB2	1:B:2321:ILE:O	2.18	0.42
1:B:2799:GLU:O	1:B:2803:GLU:OE1	2.37	0.42
1:B:2902:HIS:CE1	1:B:2904:LEU:HB3	2.54	0.42
1:B:3210:LEU:HD13	1:B:3304:CYS:O	2.19	0.42
1:B:3547:GLU:OE1	1:B:3550:ARG:NH1	2.53	0.42
1:B:4731:ILE:HG13	1:B:4732:PHE:N	2.34	0.42
1:D:2894:LEU:O	1:D:2898:GLY:N	2.48	0.42
1:C:790:ARG:HA	1:C:1626:TRP:O	2.19	0.42
1:C:2369[B]:ARG:HA	1:C:2369[B]:ARG:HD3	1.90	0.42
1:C:2577:ILE:H	1:C:2577:ILE:HD12	1.84	0.42
1:C:4902:GLU:O	1:C:4913:ARG:NH2	2.52	0.42
1:A:451:TYR:CZ	1:A:474:ARG:HD2	2.54	0.42
1:A:598:LYS:O	1:A:602:VAL:HG23	2.19	0.42
1:A:1256:GLU:HB2	1:A:1275:ARG:HE	1.84	0.42
1:A:3166:TYR:O	1:A:3170:CYS:SG	2.77	0.42
1:A:3592:ILE:O	1:A:3596:VAL:HG23	2.19	0.42
1:B:39:ALA:O	1:B:111:HIS:NE2	2.53	0.42
1:B:1705:GLY:HA3	1:B:1836:PHE:CD2	2.55	0.42
1:B:1805:GLU:O	1:B:1808:ARG:HG2	2.19	0.42
1:B:2928:LYS:O	1:B:2932:MET:HG2	2.18	0.42
1:B:3152:PHE:O	1:B:3156:VAL:HG23	2.19	0.42
1:B:3592:ILE:O	1:B:3596:VAL:HG23	2.19	0.42
1:D:39:ALA:O	1:D:111:HIS:NE2	2.53	0.42
1:D:46:LEU:HD13	1:D:125:ARG:NH2	2.33	0.42
1:D:2150:GLU:HG2	1:D:2151:ASP:N	2.34	0.42
1:D:2185:ILE:HD13	1:D:2203:MET:CE	2.49	0.42
1:D:2736:ASP:O	1:D:2738:ARG:HD3	2.19	0.42
1:D:3409:TYR:N	1:D:3410:PRO:HD2	2.34	0.42
1:D:3531:ASP:O	1:D:3535:LEU:CD1	2.68	0.42
1:D:3996:PHE:HD1	1:D:4016:LEU:HD11	1.83	0.42
1:C:2513:GLU:OE1	1:C:2513:GLU:N	2.51	0.42
1:C:2660:GLY:HA3	1:C:2666:VAL:HG12	2.00	0.42
1:C:3409:TYR:N	1:C:3410:PRO:HD2	2.34	0.42
1:C:3916:ILE:O	1:C:3920:VAL:HG23	2.20	0.42
1:C:4645:CYS:O	1:C:4649:LEU:CD1	2.68	0.42
1:A:155:LYS:HE2	1:D:228:ASP:OD2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2577:ILE:H	1:A:2577:ILE:HD12	1.84	0.42
1:A:3229:ILE:HG13	1:A:3230:LEU:N	2.35	0.42
1:A:3534:MET:O	1:A:3538:THR:HG23	2.20	0.42
1:A:4946:GLN:O	1:A:4950:VAL:HG23	2.19	0.42
2:F:77:SER:OG	2:F:79:ASP:OD1	2.28	0.42
1:B:907:LEU:O	1:B:908:VAL:HB	2.20	0.42
1:B:1000:ARG:HB3	1:B:1021:LEU:HD11	2.01	0.42
1:B:1112:ASP:OD1	1:B:1113:VAL:N	2.52	0.42
1:B:1123:VAL:HG23	1:B:1132:TRP:HB2	2.01	0.42
1:B:2719:TYR:HB2	1:B:2953:LYS:HZ2	1.83	0.42
1:B:2874:MET:SD	1:B:2939:ARG:C	2.98	0.42
1:B:3166:TYR:O	1:B:3170:CYS:SG	2.77	0.42
1:B:3229:ILE:HG13	1:B:3230:LEU:N	2.35	0.42
1:B:3996:PHE:HD1	1:B:4016:LEU:HD11	1.84	0.42
1:B:4673:ARG:O	1:B:4676:GLU:HG3	2.19	0.42
1:D:3986:TRP:O	1:D:3990:VAL:HG23	2.20	0.42
1:C:232:THR:HG21	1:C:252:VAL:HG21	2.02	0.42
1:C:2874:MET:SD	1:C:2939:ARG:O	2.78	0.42
1:C:3087:ILE:H	1:C:3087:ILE:HD12	1.84	0.42
1:C:4000:MET:HG2	1:C:4013:LEU:HD11	2.01	0.42
1:A:232:THR:HG21	1:A:252:VAL:HG21	2.02	0.42
1:A:384:MET:SD	1:B:166:GLY:HA3	2.59	0.42
1:A:478:PHE:CD2	1:A:483:MET:HG3	2.55	0.42
1:A:925:SER:O	1:A:929:LEU:HD23	2.20	0.42
1:A:2326:CYS:SG	1:A:2327:GLY:N	2.93	0.42
1:A:2914:LYS:HG3	1:A:2915:GLU:N	2.35	0.42
1:A:4673:ARG:O	1:A:4676:GLU:HG3	2.19	0.42
2:G:17:LYS:HA	2:G:17:LYS:HD3	1.88	0.42
1:B:842:PRO:O	1:B:1196:PRO:HA	2.19	0.42
1:B:3409:TYR:N	1:B:3410:PRO:HD2	2.34	0.42
1:B:3635:CYS:HB3	1:B:3638:MET:HE2	2.02	0.42
1:D:867:LEU:HD13	1:D:929:LEU:HD12	2.01	0.42
1:D:1116:GLY:HA3	1:D:1132:TRP:HB3	2.02	0.42
1:D:1669:LEU:O	1:D:1673:VAL:HG22	2.19	0.42
1:D:1748:PHE:CB	1:D:1758:ARG:HG2	2.50	0.42
1:D:1769:THR:N	1:D:1956:GLU:OE2	2.52	0.42
1:D:2031:LEU:HD11	1:D:3657:TYR:CE1	2.55	0.42
1:D:2874:MET:SD	1:D:2939:ARG:O	2.78	0.42
1:D:2908:TYR:HA	1:D:2911:LEU:HG	2.02	0.42
1:D:3210:LEU:HD13	1:D:3304:CYS:O	2.19	0.42
1:D:3225:ARG:NH1	1:D:3226:GLU:HG3	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3329:ILE:HD11	1:D:3332:ALA:HB2	2.00	0.42
1:D:4000:MET:SD	1:D:4017:LEU:HD21	2.60	0.42
1:C:2150:GLU:HG2	1:C:2151:ASP:N	2.34	0.42
1:C:2225:PHE:N	1:C:2226:PRO:CD	2.82	0.42
1:C:3166:TYR:O	1:C:3170:CYS:SG	2.77	0.42
1:C:3635:CYS:HB3	1:C:3638:MET:HE2	2.01	0.42
1:C:4585:SER:O	1:C:4629:TYR:HD2	2.02	0.42
1:C:4731:ILE:HG13	1:C:4732:PHE:N	2.34	0.42
1:A:39:ALA:O	1:A:111:HIS:NE2	2.53	0.42
1:A:2699:ALA:O	1:A:2702:CYS:HB3	2.19	0.42
1:A:2974:ILE:HD13	1:A:3049:LEU:CD1	2.46	0.42
1:A:3986:TRP:O	1:A:3990:VAL:HG23	2.20	0.42
1:A:4731:ILE:HG13	1:A:4732:PHE:N	2.34	0.42
2:H:57:ARG:O	2:H:58:GLY:C	2.56	0.42
1:B:328:LYS:HE2	1:B:328:LYS:HB3	1.82	0.42
1:B:2031:LEU:HD11	1:B:3657:TYR:CE1	2.55	0.42
1:B:3319:ILE:O	1:B:3320:LEU:C	2.55	0.42
1:B:4222:VAL:HG11	1:B:4950:VAL:HA	2.00	0.42
1:D:598:LYS:O	1:D:602:VAL:HG23	2.19	0.42
1:D:3991:GLY:O	1:D:3995:VAL:HG23	2.19	0.42
1:D:4000:MET:HG2	1:D:4013:LEU:HD11	2.01	0.42
1:D:4902:GLU:O	1:D:4913:ARG:NH2	2.52	0.42
1:C:860:GLN:O	1:C:930:LYS:NZ	2.39	0.42
1:C:1749:PRO:O	1:C:1758:ARG:NE	2.52	0.42
1:C:2229:VAL:CG1	1:C:2267:MET:CE	2.93	0.42
1:C:2326:CYS:SG	1:C:2327:GLY:N	2.93	0.42
1:C:3197:LEU:HD23	1:C:3201:MET:SD	2.59	0.42
1:C:3534:MET:O	1:C:3538:THR:HG23	2.20	0.42
1:C:3765:TYR:CZ	1:C:4753:HIS:ND1	2.75	0.42
1:C:3991:GLY:O	1:C:3995:VAL:HG23	2.19	0.42
1:A:1116:GLY:HA3	1:A:1132:TRP:HB3	2.02	0.42
1:A:1123:VAL:HG23	1:A:1132:TRP:HB2	2.01	0.42
1:A:2014:ASP:O	1:A:2015:GLU:HB3	2.19	0.42
1:A:2970:SER:HA	1:A:2973:PHE:CE2	2.55	0.42
1:A:4631:PHE:HE2	1:A:4633:GLU:CG	2.33	0.42
1:A:4744:ASP:O	1:A:4748:LEU:HD12	2.20	0.42
1:B:1705:GLY:N	1:B:1706:PRO:CD	2.83	0.42
1:B:2326:CYS:SG	1:B:2327:GLY:N	2.93	0.42
1:B:3225:ARG:NH1	1:B:3226:GLU:HG3	2.35	0.42
1:B:3281:LEU:HB2	1:B:3282:PRO:HD3	2.02	0.42
1:B:3916:ILE:O	1:B:3920:VAL:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:301:VAL:O	1:D:301:VAL:HG23	2.20	0.42
1:D:478:PHE:CD2	1:D:483:MET:HG3	2.55	0.42
1:D:790:ARG:HA	1:D:1626:TRP:O	2.19	0.42
1:D:907:LEU:O	1:D:908:VAL:HB	2.20	0.42
1:D:1423:ASP:HB3	1:D:1426:ILE:HD12	2.02	0.42
1:D:1705:GLY:HA3	1:D:1836:PHE:CD2	2.55	0.42
1:D:2951:ILE:H	1:D:2951:ILE:HD12	1.85	0.42
1:D:3129:LEU:O	1:D:3133:THR:HG22	2.20	0.42
1:D:3229:ILE:HG13	1:D:3230:LEU:N	2.35	0.42
1:D:3414:ARG:NH2	1:D:3472:ALA:HB3	2.35	0.42
1:C:907:LEU:O	1:C:908:VAL:HB	2.20	0.42
1:C:978:THR:O	1:C:982:THR:HG23	2.20	0.42
1:C:2902:HIS:CE1	1:C:2904:LEU:HB3	2.54	0.42
1:C:3229:ILE:HG13	1:C:3230:LEU:N	2.35	0.42
1:C:3262:ARG:HH21	1:C:3329:ILE:CG2	2.33	0.42
1:C:3346:VAL:HG11	1:C:3414:ARG:CB	2.48	0.42
1:C:3634:ALA:O	1:C:3638:MET:HG3	2.19	0.42
1:C:4244:GLU:OE2	1:C:4668:LEU:HD22	2.20	0.42
1:C:4673:ARG:O	1:C:4676:GLU:HG3	2.19	0.42
1:A:76:ARG:O	1:A:80:GLU:HG2	2.19	0.42
1:A:2031:LEU:HD11	1:A:3657:TYR:CE1	2.55	0.42
1:A:2584[B]:HIS:HD2	1:A:2625:ARG:HD2	1.80	0.42
1:A:2725:LYS:HB2	1:A:2725:LYS:HE2	1.88	0.42
1:A:3768:SER:HA	1:A:3771:HIS:NE2	2.35	0.42
2:F:57:ARG:O	2:F:58:GLY:C	2.56	0.42
1:B:478:PHE:CD2	1:B:483:MET:HG3	2.55	0.42
1:B:981:GLN:HA	1:B:984:LEU:HD12	2.01	0.42
1:B:1995:THR:HG22	1:B:1999:ARG:CG	2.50	0.42
1:B:2951:ILE:H	1:B:2951:ILE:HD12	1.85	0.42
1:D:1112:ASP:OD1	1:D:1113:VAL:N	2.52	0.42
1:D:2874:MET:SD	1:D:2939:ARG:C	2.98	0.42
1:D:2914:LYS:HG3	1:D:2915:GLU:N	2.35	0.42
1:D:3262:ARG:HH21	1:D:3329:ILE:CG2	2.33	0.42
1:D:3281:LEU:HB2	1:D:3282:PRO:HD3	2.02	0.42
1:D:3635:CYS:HB3	1:D:3638:MET:HE2	2.01	0.42
1:D:4744:ASP:O	1:D:4748:LEU:HD12	2.20	0.42
1:C:301:VAL:O	1:C:301:VAL:HG23	2.20	0.42
1:C:575:LEU:HA	1:C:578:ILE:HG12	2.01	0.42
1:C:3225:ARG:NH1	1:C:3226:GLU:HG3	2.35	0.42
1:C:3592:ILE:O	1:C:3596:VAL:HG23	2.19	0.42
1:C:3768:SER:HA	1:C:3771:HIS:NE2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3901:ASN:OD1	1:C:3904:ARG:NH1	2.44	0.42
1:C:4631:PHE:HE2	1:C:4633:GLU:CG	2.33	0.42
1:C:4655:PHE:HE2	1:C:4659:ILE:HD11	1.81	0.42
1:A:2736:ASP:O	1:A:2738:ARG:HD3	2.19	0.41
1:A:2951:ILE:HD12	1:A:2951:ILE:H	1.85	0.41
1:A:3210:LEU:HD13	1:A:3304:CYS:O	2.19	0.41
1:A:3465:ASN:C	1:A:3467:MET:H	2.23	0.41
1:B:978:THR:O	1:B:982:THR:HG23	2.20	0.41
1:B:3768:SER:HA	1:B:3771:HIS:NE2	2.35	0.41
1:B:4902:GLU:O	1:B:4913:ARG:NH2	2.53	0.41
1:D:842:PRO:O	1:D:1196:PRO:HA	2.19	0.41
1:D:978:THR:O	1:D:982:THR:HG23	2.20	0.41
1:D:2313:LEU:HD12	1:D:2318:TYR:CD1	2.55	0.41
1:D:2326:CYS:SG	1:D:2327:GLY:N	2.93	0.41
1:D:3166:TYR:O	1:D:3170:CYS:SG	2.77	0.41
1:D:3534:MET:O	1:D:3538:THR:HG23	2.20	0.41
1:D:3547:GLU:OE1	1:D:3550:ARG:NH1	2.53	0.41
1:D:3592:ILE:O	1:D:3596:VAL:HG23	2.19	0.41
1:D:3765:TYR:CZ	1:D:4753:HIS:ND1	2.75	0.41
1:C:478:PHE:CD2	1:C:483:MET:HG3	2.55	0.41
1:C:1000:ARG:HB3	1:C:1021:LEU:HD11	2.01	0.41
1:C:1705:GLY:N	1:C:1706:PRO:CD	2.83	0.41
1:C:1705:GLY:HA3	1:C:1836:PHE:CD2	2.55	0.41
1:C:2951:ILE:HD12	1:C:2951:ILE:H	1.85	0.41
1:C:3281:LEU:HB2	1:C:3282:PRO:HD3	2.02	0.41
1:A:2638:LYS:O	1:A:2698:MET:CE	2.69	0.41
2:G:58:GLY:HA3	2:G:76:ILE:HG12	2.02	0.41
1:B:4645:CYS:O	1:B:4649:LEU:CD1	2.68	0.41
1:D:328:LYS:HB3	1:D:328:LYS:HE2	1.82	0.41
1:D:499:THR:HG23	1:D:502:HIS:H	1.86	0.41
1:D:2280:VAL:O	1:D:2280:VAL:HG22	2.21	0.41
1:D:2673:HIS:ND1	1:D:2716:ASP:OD2	2.46	0.41
1:D:2902:HIS:CE1	1:D:2904:LEU:HB3	2.54	0.41
1:D:3383:ALA:N	1:D:3384:LYS:HZ3	2.17	0.41
1:D:4244:GLU:OE2	1:D:4668:LEU:HD22	2.20	0.41
1:D:4631:PHE:HE2	1:D:4633:GLU:CG	2.33	0.41
1:C:1995:THR:HG22	1:C:1999:ARG:CG	2.50	0.41
1:C:2280:VAL:O	1:C:2280:VAL:HG22	2.21	0.41
1:C:3414:ARG:NH2	1:C:3472:ALA:HB3	2.35	0.41
1:A:1112:ASP:OD1	1:A:1113:VAL:N	2.52	0.41
1:A:1421:ARG:O	1:A:1570:LYS:NZ	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1995:THR:HG22	1:A:1999:ARG:CG	2.50	0.41
1:A:3129:LEU:O	1:A:3133:THR:HG22	2.20	0.41
1:A:3547:GLU:OE1	1:A:3550:ARG:NH1	2.53	0.41
1:A:3996:PHE:HD1	1:A:4016:LEU:HD11	1.83	0.41
1:A:4645:CYS:O	1:A:4649:LEU:CD1	2.68	0.41
2:G:57:ARG:O	2:G:58:GLY:C	2.56	0.41
2:F:58:GLY:HA3	2:F:76:ILE:HG12	2.02	0.41
1:B:925:SER:O	1:B:929:LEU:HD23	2.20	0.41
1:B:2313:LEU:HD12	1:B:2318:TYR:CD1	2.55	0.41
1:B:2417:HIS:ND1	1:B:2492:ALA:HB2	2.35	0.41
1:B:2914:LYS:HG3	1:B:2915:GLU:N	2.35	0.41
1:D:1808:ARG:HD3	1:D:1853:ILE:HG22	2.02	0.41
1:D:1815:LEU:O	1:D:1819:VAL:HG23	2.20	0.41
1:D:1823:GLY:O	1:D:1825:HIS:ND1	2.51	0.41
1:D:4645:CYS:O	1:D:4649:LEU:CD1	2.68	0.41
1:C:1168:VAL:HG11	1:C:1176:GLU:HG3	2.03	0.41
1:C:2031:LEU:HD11	1:C:3657:TYR:CE1	2.55	0.41
1:C:2185:ILE:HD13	1:C:2203:MET:CE	2.49	0.41
1:C:2313:LEU:HD12	1:C:2318:TYR:CD1	2.55	0.41
1:C:2874:MET:SD	1:C:2939:ARG:C	2.98	0.41
1:C:3986:TRP:O	1:C:3990:VAL:HG23	2.20	0.41
1:A:1820:ARG:O	1:A:1824:GLN:HG2	2.21	0.41
1:A:2490:MET:CG	1:A:2545:GLU:OE1	2.67	0.41
1:A:4000:MET:SD	1:A:4017:LEU:HD21	2.60	0.41
1:B:1116:GLY:HA3	1:B:1132:TRP:HB3	2.02	0.41
1:B:1808:ARG:HD3	1:B:1853:ILE:HG22	2.02	0.41
1:B:2583:LEU:O	1:B:2586:VAL:HG12	2.21	0.41
1:B:2908:TYR:HA	1:B:2911:LEU:HG	2.02	0.41
1:B:3225:ARG:HD2	1:B:3225:ARG:C	2.41	0.41
1:B:3946:GLN:HA	1:B:3949:ARG:NE	2.35	0.41
1:D:2229:VAL:CG1	1:D:2267:MET:CE	2.93	0.41
1:D:4673:ARG:O	1:D:4676:GLU:HG3	2.19	0.41
1:C:39:ALA:O	1:C:111:HIS:NE2	2.53	0.41
1:C:76:ARG:O	1:C:80:GLU:HG2	2.19	0.41
1:C:1256:GLU:HB2	1:C:1275:ARG:HE	1.84	0.41
1:C:1423:ASP:HB3	1:C:1426:ILE:HD12	2.02	0.41
1:C:1446:SER:O	1:C:1496:TRP:NE1	2.41	0.41
1:C:2908:TYR:HA	1:C:2911:LEU:HG	2.02	0.41
1:A:46:LEU:HD13	1:A:125:ARG:NH2	2.33	0.41
1:A:842:PRO:O	1:A:1196:PRO:HA	2.19	0.41
1:A:978:THR:O	1:A:982:THR:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1987:SER:O	1:A:1991:THR:HG23	2.19	0.41
1:A:2417:HIS:ND1	1:A:2492:ALA:HB2	2.36	0.41
1:A:3874:VAL:HG12	1:A:3875:MET:HG2	2.03	0.41
1:A:3891:LEU:HD13	1:A:3899:PHE:HZ	1.84	0.41
1:A:4902:GLU:O	1:A:4913:ARG:NH2	2.52	0.41
1:B:76:ARG:O	1:B:80:GLU:HG2	2.19	0.41
1:B:1748:PHE:CB	1:B:1758:ARG:HG2	2.50	0.41
1:B:3129:LEU:O	1:B:3133:THR:HG22	2.20	0.41
1:B:3414:ARG:NH2	1:B:3472:ALA:HB3	2.35	0.41
1:B:3754:GLU:O	1:B:3758:MET:HG2	2.21	0.41
1:B:4655:PHE:HE2	1:B:4659:ILE:HD11	1.81	0.41
1:D:1256:GLU:HB2	1:D:1275:ARG:HE	1.84	0.41
1:D:3891:LEU:CB	1:D:3899:PHE:CE2	3.03	0.41
1:D:3916:ILE:O	1:D:3920:VAL:HG23	2.20	0.41
1:D:4644:TRP:O	1:D:4648:LEU:HD13	2.21	0.41
1:C:708:GLY:HA3	1:C:722:TRP:HB3	2.02	0.41
1:C:2229:VAL:HG11	1:C:2267:MET:HE2	2.00	0.41
1:C:2583:LEU:O	1:C:2586:VAL:HG12	2.21	0.41
1:C:3891:LEU:CB	1:C:3899:PHE:CE2	3.03	0.41
1:C:3946:GLN:HA	1:C:3949:ARG:NE	2.35	0.41
1:C:4000:MET:SD	1:C:4017:LEU:HD21	2.60	0.41
1:A:166:GLY:HA3	1:D:384:MET:SD	2.60	0.41
1:A:1423:ASP:HB3	1:A:1426:ILE:HD12	2.02	0.41
1:A:3384:LYS:H	1:A:3387:ALA:HB3	1.86	0.41
1:A:3590:GLU:HG2	1:A:3591:LYS:N	2.36	0.41
1:A:3891:LEU:CB	1:A:3899:PHE:CE2	3.03	0.41
1:A:4644:TRP:O	1:A:4648:LEU:HD13	2.21	0.41
2:H:58:GLY:HA3	2:H:76:ILE:HG12	2.02	0.41
1:B:2638:LYS:O	1:B:2698:MET:CE	2.69	0.41
1:B:3262:ARG:HH21	1:B:3329:ILE:CG2	2.33	0.41
1:B:3749:VAL:HG23	1:B:3749:VAL:O	2.21	0.41
1:B:3769:ARG:O	1:B:3773:ARG:HD2	2.21	0.41
1:B:4000:MET:SD	1:B:4017:LEU:HD21	2.60	0.41
1:B:4244:GLU:OE2	1:B:4668:LEU:HD22	2.20	0.41
1:B:4585:SER:O	1:B:4629:TYR:HD2	2.02	0.41
1:B:4904:PRO:HB3	1:B:4913:ARG:HD3	2.03	0.41
1:D:1705:GLY:N	1:D:1706:PRO:CD	2.83	0.41
1:D:1995:THR:HG22	1:D:1999:ARG:CG	2.50	0.41
1:D:2742:THR:O	1:D:2742:THR:HG22	2.21	0.41
1:D:3590:GLU:HG2	1:D:3591:LYS:N	2.36	0.41
1:D:3946:GLN:HA	1:D:3949:ARG:NE	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1116:GLY:HA3	1:C:1132:TRP:HB3	2.02	0.41
1:C:1669:LEU:O	1:C:1673:VAL:HG22	2.19	0.41
1:C:1808:ARG:HD3	1:C:1853:ILE:HG22	2.02	0.41
1:C:2430:ILE:HG22	1:C:2505:PHE:HB2	2.03	0.41
1:C:2914:LYS:HG3	1:C:2915:GLU:N	2.35	0.41
1:C:2970:SER:HA	1:C:2973:PHE:CE2	2.55	0.41
1:C:3129:LEU:O	1:C:3133:THR:HG22	2.20	0.41
1:C:3660:ALA:HB3	1:C:3661:TRP:HD1	1.86	0.41
1:C:3686:GLU:O	1:C:3687:GLU:HB2	2.21	0.41
1:A:116:MET:HG2	1:A:139:GLU:HA	2.03	0.41
1:A:917:GLU:OE1	1:A:917:GLU:N	2.48	0.41
1:A:1769:THR:N	1:A:1956:GLU:OE2	2.52	0.41
1:A:2369[B]:ARG:HD3	1:A:2369[B]:ARG:HA	1.90	0.41
1:A:2701:PRO:C	1:A:2702:CYS:SG	2.99	0.41
1:A:2782:ASP:N	1:A:2782:ASP:OD1	2.54	0.41
1:A:3686:GLU:O	1:A:3687:GLU:HB2	2.21	0.41
1:A:3892:CYS:HG	1:A:3899:PHE:HD2	1.65	0.41
1:B:2280:VAL:HG22	1:B:2280:VAL:O	2.21	0.41
1:B:2970:SER:HA	1:B:2973:PHE:CE2	2.55	0.41
1:B:3891:LEU:CB	1:B:3899:PHE:CE2	3.03	0.41
1:B:4983:HIS:O	3:B:5301:ATP:N6	2.50	0.41
1:D:1168:VAL:HG11	1:D:1176:GLU:HG3	2.03	0.41
1:D:2970:SER:HA	1:D:2973:PHE:CE2	2.55	0.41
1:D:3225:ARG:HD2	1:D:3225:ARG:C	2.41	0.41
1:D:3318:ASN:C	1:D:3321:ARG:H	2.20	0.41
1:D:3588:ASP:O	1:D:3591:LYS:N	2.54	0.41
1:D:3874:VAL:HG12	1:D:3875:MET:HG2	2.03	0.41
1:D:4749:GLU:O	1:D:4753:HIS:CD2	2.74	0.41
1:C:867:LEU:HD13	1:C:929:LEU:HD12	2.01	0.41
1:C:2094:LEU:O	1:C:2098:VAL:HG23	2.21	0.41
1:A:278:GLN:HA	1:A:328:LYS:HZ3	1.85	0.41
1:A:301:VAL:O	1:A:301:VAL:HG23	2.20	0.41
1:A:1748:PHE:CB	1:A:1758:ARG:HG2	2.50	0.41
1:A:1815:LEU:O	1:A:1819:VAL:HG23	2.20	0.41
1:A:2116:LEU:O	1:A:2120:MET:HG2	2.21	0.41
1:A:2280:VAL:O	1:A:2280:VAL:HG22	2.21	0.41
1:A:2348:GLU:OE1	1:A:3852:LYS:NZ	2.49	0.41
1:A:3225:ARG:NH1	1:A:3226:GLU:HG3	2.35	0.41
1:A:3281:LEU:HB2	1:A:3282:PRO:HD3	2.02	0.41
1:A:3660:ALA:HB3	1:A:3661:TRP:HD1	1.86	0.41
1:A:3762:ARG:C	1:A:3766:GLN:HE22	2.24	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3769:ARG:O	1:A:3773:ARG:HD2	2.21	0.41
1:B:2369[B]:ARG:HD3	1:B:2369[B]:ARG:HA	1.90	0.41
1:B:3686:GLU:O	1:B:3687:GLU:HB2	2.21	0.41
1:B:4631:PHE:HE2	1:B:4633:GLU:CG	2.33	0.41
1:D:116:MET:HG2	1:D:139:GLU:HA	2.03	0.41
1:D:2094:LEU:O	1:D:2098:VAL:HG23	2.21	0.41
1:D:2229:VAL:CB	1:D:2267:MET:HE1	2.51	0.41
1:D:3406:TYR:OH	1:D:3455:GLU:OE2	2.35	0.41
1:D:3465:ASN:C	1:D:3467:MET:H	2.23	0.41
1:D:3660:ALA:HB3	1:D:3661:TRP:HD1	1.86	0.41
1:C:463:GLU:OE1	1:C:463:GLU:N	2.49	0.41
1:C:925:SER:O	1:C:929:LEU:HD23	2.20	0.41
1:C:2350:ALA:O	1:C:2354:VAL:HG23	2.21	0.41
1:C:3225:ARG:HD2	1:C:3225:ARG:C	2.41	0.41
1:C:3590:GLU:HG2	1:C:3591:LYS:N	2.36	0.41
1:C:3749:VAL:HG23	1:C:3749:VAL:O	2.21	0.41
1:C:4644:TRP:O	1:C:4648:LEU:HD13	2.21	0.41
1:A:907:LEU:O	1:A:908:VAL:HB	2.20	0.41
1:A:961:MET:HE2	1:A:965:TYR:C	2.41	0.41
1:A:1105:ALA:O	1:A:1189:LEU:N	2.50	0.41
1:A:1225:PRO:HG2	1:A:1228:ILE:HD13	2.03	0.41
1:A:1808:ARG:HD3	1:A:1853:ILE:HG22	2.02	0.41
1:A:2742:THR:HG22	1:A:2742:THR:O	2.21	0.41
1:A:3459:VAL:HG11	1:A:3503:TYR:CD1	2.56	0.41
1:A:3749:VAL:HG23	1:A:3749:VAL:O	2.21	0.41
1:A:3946:GLN:HA	1:A:3949:ARG:NE	2.35	0.41
1:A:4904:PRO:HB3	1:A:4913:ARG:HD3	2.03	0.41
2:H:13:ARG:HG3	2:H:14:THR:HG23	2.03	0.41
1:B:232:THR:HG21	1:B:252:VAL:HG21	2.02	0.41
1:B:499:THR:HG23	1:B:502:HIS:H	1.86	0.41
1:B:688:LEU:HD11	1:B:775:GLY:C	2.41	0.41
1:B:1658:ASP:OD1	1:B:1658:ASP:N	2.54	0.41
1:B:2094:LEU:O	1:B:2098:VAL:HG23	2.21	0.41
1:B:2542:SER:OG	1:B:2593:ARG:HG3	2.21	0.41
1:B:2725:LYS:HE2	1:B:2725:LYS:HB2	1.88	0.41
1:B:2742:THR:O	1:B:2742:THR:HG22	2.21	0.41
1:B:2788:HIS:CE1	1:B:2790:MET:HG2	2.56	0.41
1:B:2904:LEU:O	1:B:2906:VAL:N	2.54	0.41
1:B:3459:VAL:HG11	1:B:3503:TYR:CD1	2.56	0.41
1:B:3542:LEU:O	1:B:3543:LYS:HB2	2.21	0.41
1:B:3660:ALA:HB3	1:B:3661:TRP:HD1	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3696:ASP:OD1	1:B:3699:HIS:HB2	2.21	0.41
1:D:575:LEU:HA	1:D:578:ILE:HG12	2.01	0.41
1:D:583:ILE:CD1	1:D:606:LEU:HD13	2.51	0.41
1:D:730:VAL:HG21	1:D:764:VAL:HG12	2.03	0.41
1:D:1225:PRO:HG2	1:D:1228:ILE:HD13	2.03	0.41
1:D:2417:HIS:ND1	1:D:2492:ALA:HB2	2.36	0.41
1:D:2522:LEU:CD2	1:D:2582:MET:HE1	2.51	0.41
1:D:2583:LEU:O	1:D:2586:VAL:HG12	2.21	0.41
1:D:2605:ASP:N	1:D:2608:MET:HE1	2.36	0.41
1:D:2638:LYS:O	1:D:2698:MET:CE	2.69	0.41
1:D:2755:ILE:HG23	1:D:2809:ILE:HG21	2.03	0.41
1:D:2782:ASP:OD1	1:D:2782:ASP:N	2.54	0.41
1:D:2904:LEU:O	1:D:2906:VAL:N	2.54	0.41
1:D:2926:LEU:O	1:D:2930:LEU:CD1	2.69	0.41
1:D:3435:PHE:CD2	1:D:3524:MET:HE2	2.56	0.41
1:D:3542:LEU:O	1:D:3543:LYS:HB2	2.21	0.41
1:D:3696:ASP:OD1	1:D:3699:HIS:HB2	2.21	0.41
1:D:3749:VAL:HG23	1:D:3749:VAL:O	2.21	0.41
1:D:3762:ARG:C	1:D:3766:GLN:HE22	2.24	0.41
1:D:3768:SER:HA	1:D:3771:HIS:NE2	2.35	0.41
1:D:3933:PHE:CD2	1:D:3951:PHE:CE1	3.09	0.41
1:C:328:LYS:HE2	1:C:328:LYS:HB3	1.83	0.41
1:C:688:LEU:HD11	1:C:775:GLY:C	2.41	0.41
1:C:730:VAL:HG21	1:C:764:VAL:HG12	2.03	0.41
1:C:2470:ILE:HG22	1:C:2525:GLY:HA3	2.03	0.41
1:C:2475:GLN:CD	1:C:2488:PRO:HB3	2.42	0.41
1:C:2719:TYR:HB2	1:C:2953:LYS:HZ2	1.86	0.41
1:C:3054:VAL:HG13	1:C:3055:SER:N	2.36	0.41
1:C:3531:ASP:O	1:C:3535:LEU:CD1	2.68	0.41
1:C:3615:SER:O	1:C:3616:LYS:HG2	2.21	0.41
1:C:3725:TYR:HA	1:C:3728:ILE:HD12	2.03	0.41
1:C:3762:ARG:C	1:C:3766:GLN:HE22	2.24	0.41
1:A:574:VAL:HA	1:A:577:ILE:HG12	2.03	0.41
1:A:730:VAL:HG21	1:A:764:VAL:HG12	2.03	0.41
1:A:2044:ILE:H	1:A:2044:ILE:HD12	1.86	0.41
1:A:3262:ARG:HH21	1:A:3329:ILE:CG2	2.33	0.41
1:A:3635:CYS:HB3	1:A:3638:MET:HE2	2.01	0.41
1:A:4224:GLU:O	1:A:4224:GLU:HG2	2.21	0.41
1:B:233:ILE:O	1:B:257:ARG:NH1	2.49	0.41
1:B:583:ILE:CD1	1:B:606:LEU:HD13	2.51	0.41
1:B:1447:CYS:HB3	1:B:1555:LEU:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3874:VAL:HG12	1:B:3875:MET:HG2	2.03	0.41
1:D:893:TYR:HE1	1:D:908:VAL:HB	1.86	0.41
1:D:925:SER:O	1:D:929:LEU:HD23	2.20	0.41
1:D:3621:HIS:O	1:D:3621:HIS:ND1	2.47	0.41
1:D:4904:PRO:HB3	1:D:4913:ARG:HD3	2.03	0.41
1:D:4911:LEU:O	1:D:4914:VAL:HG22	2.21	0.41
1:C:1658:ASP:N	1:C:1658:ASP:OD1	2.54	0.41
1:C:2431:ASP:O	1:C:2435:ARG:HG3	2.21	0.41
1:C:2788:HIS:CE1	1:C:2790:MET:HG2	2.56	0.41
1:C:2926:LEU:O	1:C:2930:LEU:CD1	2.69	0.41
1:C:4744:ASP:O	1:C:4748:LEU:HD12	2.20	0.41
1:A:575:LEU:HA	1:A:578:ILE:HG12	2.01	0.40
1:A:708:GLY:HA3	1:A:722:TRP:HB3	2.02	0.40
1:A:893:TYR:HE1	1:A:908:VAL:HB	1.86	0.40
1:A:997:ALA:O	1:A:1001:VAL:HG23	2.21	0.40
1:A:1690:ASP:OD2	1:A:1693:GLN:NE2	2.49	0.40
1:A:2313:LEU:HD12	1:A:2318:TYR:CD1	2.55	0.40
1:A:2542:SER:OG	1:A:2593:ARG:HG3	2.21	0.40
1:A:2894:LEU:O	1:A:2898:GLY:N	2.48	0.40
1:A:3169:LEU:HG	1:A:3194:LEU:HD11	2.04	0.40
1:A:3225:ARG:HD2	1:A:3225:ARG:C	2.41	0.40
1:A:4180:ARG:HG3	1:A:4981:GLU:O	2.21	0.40
1:A:4911:LEU:O	1:A:4914:VAL:HG22	2.21	0.40
1:A:4938:ASP:OD1	1:D:4944:ARG:NE	2.53	0.40
1:B:301:VAL:HG23	1:B:301:VAL:O	2.20	0.40
1:B:1554:VAL:HG21	1:B:1561:VAL:CG1	2.51	0.40
1:B:1705:GLY:HA3	1:B:1836:PHE:CG	2.56	0.40
1:B:2350:ALA:O	1:B:2354:VAL:HG23	2.21	0.40
1:B:2475:GLN:CD	1:B:2488:PRO:HB3	2.42	0.40
1:B:2782:ASP:N	1:B:2782:ASP:OD1	2.54	0.40
1:B:3054:VAL:HG13	1:B:3055:SER:N	2.36	0.40
1:B:3521:GLY:CA	1:B:3524:MET:HE3	2.40	0.40
1:B:3588:ASP:O	1:B:3591:LYS:N	2.54	0.40
1:B:3615:SER:O	1:B:3616:LYS:HG2	2.21	0.40
1:B:4075:GLU:OE1	1:C:4736:ARG:CZ	2.69	0.40
1:B:4744:ASP:O	1:B:4748:LEU:HD12	2.20	0.40
1:D:160:GLY:O	1:C:3984:ARG:NH2	2.48	0.40
1:D:232:THR:HG21	1:D:252:VAL:HG21	2.02	0.40
1:D:860:GLN:O	1:D:930:LYS:NZ	2.40	0.40
1:D:1554:VAL:HG21	1:D:1561:VAL:CG1	2.51	0.40
1:D:1658:ASP:N	1:D:1658:ASP:OD1	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2788:HIS:CE1	1:D:2790:MET:HG2	2.56	0.40
1:D:4180:ARG:HG3	1:D:4981:GLU:O	2.21	0.40
1:C:4180:ARG:HG3	1:C:4981:GLU:O	2.21	0.40
1:C:4749:GLU:O	1:C:4753:HIS:CD2	2.74	0.40
1:A:499:THR:HG23	1:A:502:HIS:H	1.86	0.40
1:A:909:ASN:HB3	1:A:912:SER:HB3	2.03	0.40
1:A:1168:VAL:HG11	1:A:1176:GLU:HG3	2.03	0.40
1:A:2094:LEU:O	1:A:2098:VAL:HG23	2.21	0.40
1:A:3933:PHE:CD2	1:A:3951:PHE:CE1	3.09	0.40
1:A:4244:GLU:OE2	1:A:4668:LEU:HD22	2.20	0.40
2:G:2:VAL:HG23	2:G:80:TYR:CD2	2.56	0.40
1:B:909:ASN:HB3	1:B:912:SER:HB3	2.03	0.40
1:B:1423:ASP:HB3	1:B:1426:ILE:HD12	2.02	0.40
1:B:2044:ILE:HD12	1:B:2044:ILE:H	1.86	0.40
1:B:3621:HIS:HB3	1:B:3623:LEU:CD1	2.52	0.40
1:B:3986:TRP:O	1:B:3990:VAL:HG23	2.20	0.40
1:B:4180:ARG:HG3	1:B:4981:GLU:O	2.21	0.40
1:D:2117:VAL:O	1:D:2120:MET:HG2	2.21	0.40
1:D:2461:VAL:O	1:D:2510:TYR:OH	2.31	0.40
1:D:2470:ILE:HG22	1:D:2525:GLY:HA3	2.03	0.40
1:D:3346:VAL:HG11	1:D:3414:ARG:CB	2.48	0.40
1:C:1705:GLY:HA3	1:C:1836:PHE:CG	2.56	0.40
1:C:2904:LEU:O	1:C:2906:VAL:N	2.54	0.40
1:C:3435:PHE:CD2	1:C:3524:MET:HE2	2.56	0.40
1:A:1658:ASP:N	1:A:1658:ASP:OD1	2.54	0.40
1:A:2431:ASP:O	1:A:2435:ARG:HG3	2.21	0.40
1:A:2463:LEU:HD21	1:A:2517:PHE:CZ	2.56	0.40
1:A:2475:GLN:CD	1:A:2488:PRO:HB3	2.42	0.40
1:A:3588:ASP:O	1:A:3591:LYS:N	2.54	0.40
1:A:3916:ILE:O	1:A:3920:VAL:HG23	2.20	0.40
1:A:4736:ARG:CZ	1:D:4075:GLU:OE1	2.69	0.40
1:A:4749:GLU:O	1:A:4753:HIS:CD2	2.74	0.40
1:B:708:GLY:HA3	1:B:722:TRP:HB3	2.02	0.40
1:B:997:ALA:O	1:B:1001:VAL:HG23	2.21	0.40
1:B:1815:LEU:O	1:B:1819:VAL:HG23	2.20	0.40
1:B:2430:ILE:HG22	1:B:2505:PHE:HB2	2.03	0.40
1:B:2517:PHE:O	1:B:2521:VAL:HG23	2.21	0.40
1:B:2926:LEU:O	1:B:2930:LEU:CD1	2.69	0.40
1:B:3225:ARG:CZ	1:B:3226:GLU:HG3	2.51	0.40
1:B:3384:LYS:H	1:B:3387:ALA:HB3	1.86	0.40
1:B:3590:GLU:HG2	1:B:3591:LYS:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3762:ARG:C	1:B:3766:GLN:HE22	2.24	0.40
1:D:255:HIS:O	1:D:258:SER:OG	2.39	0.40
1:D:688:LEU:HD11	1:D:775:GLY:C	2.41	0.40
1:D:1820:ARG:O	1:D:1824:GLN:HG2	2.21	0.40
1:D:2790:MET:HE2	1:D:2797:PHE:HE1	1.87	0.40
1:C:652:ARG:NE	1:C:750:LEU:O	2.55	0.40
1:C:981:GLN:HA	1:C:984:LEU:HD12	2.01	0.40
1:C:1515:VAL:O	1:C:1531:ALA:O	2.40	0.40
1:C:1815:LEU:O	1:C:1819:VAL:HG23	2.20	0.40
1:C:1926:LEU:HA	1:C:1929:MET:SD	2.62	0.40
1:C:2044:ILE:HD12	1:C:2044:ILE:H	1.86	0.40
1:C:2116:LEU:O	1:C:2120:MET:HG2	2.21	0.40
1:C:2542:SER:OG	1:C:2593:ARG:HG3	2.21	0.40
1:C:2638:LYS:O	1:C:2698:MET:CE	2.69	0.40
1:C:2701:PRO:C	1:C:2702:CYS:SG	2.99	0.40
1:C:3933:PHE:CD2	1:C:3951:PHE:CE1	3.09	0.40
1:C:4793:GLY:O	1:C:4797:VAL:HG23	2.22	0.40
1:A:1447:CYS:HB3	1:A:1555:LEU:HB3	2.03	0.40
1:A:1705:GLY:N	1:A:1706:PRO:CD	2.83	0.40
1:A:3225:ARG:CZ	1:A:3226:GLU:HG3	2.51	0.40
1:A:3615:SER:O	1:A:3616:LYS:HG2	2.21	0.40
1:A:3621:HIS:O	1:A:3621:HIS:ND1	2.47	0.40
1:A:3696:ASP:OD1	1:A:3699:HIS:HB2	2.21	0.40
1:A:3754:GLU:O	1:A:3758:MET:HG2	2.21	0.40
1:A:4793:GLY:O	1:A:4797:VAL:HG23	2.22	0.40
2:E:58:GLY:HA3	2:E:76:ILE:HG12	2.02	0.40
1:B:1515:VAL:O	1:B:1531:ALA:O	2.40	0.40
1:B:2524:VAL:HG23	1:B:2525:GLY:N	2.37	0.40
1:B:3933:PHE:CD2	1:B:3951:PHE:CE1	3.09	0.40
1:B:4793:GLY:O	1:B:4797:VAL:HG23	2.22	0.40
1:D:2515:GLN:O	1:D:2519:LEU:HG	2.22	0.40
1:D:2542:SER:OG	1:D:2593:ARG:HG3	2.21	0.40
1:D:3769:ARG:O	1:D:3773:ARG:HD2	2.21	0.40
1:D:4049:VAL:HG21	1:D:4159:ARG:HD2	2.03	0.40
1:D:4736:ARG:CZ	1:C:4075:GLU:OE1	2.69	0.40
1:C:1820:ARG:O	1:C:1824:GLN:HG2	2.21	0.40
1:C:2117:VAL:O	1:C:2120:MET:HG2	2.21	0.40
1:C:2417:HIS:ND1	1:C:2492:ALA:HB2	2.36	0.40
1:C:2768:PHE:O	1:C:2772:GLN:HG2	2.22	0.40
1:C:2862:LEU:HB2	1:C:2865:VAL:HG23	2.04	0.40
1:C:3225:ARG:CZ	1:C:3226:GLU:HG3	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:160:GLY:O	1:D:3984:ARG:NH2	2.48	0.40
1:A:255:HIS:O	1:A:258:SER:OG	2.39	0.40
1:A:1926:LEU:HA	1:A:1929:MET:SD	2.62	0.40
1:A:2123:LEU:O	1:A:2127:GLN:HG2	2.22	0.40
1:A:2359:ARG:NE	1:B:179:TYR:OH	2.54	0.40
1:A:2430:ILE:HG22	1:A:2505:PHE:HB2	2.03	0.40
1:A:2583:LEU:O	1:A:2586:VAL:HG12	2.21	0.40
1:A:2605:ASP:HA	1:A:2608:MET:CE	2.35	0.40
1:A:2609:ALA:HA	1:A:2612[A]:ARG:NH2	2.37	0.40
1:A:2707:ALA:HB1	1:A:3009:TYR:CE1	2.57	0.40
1:A:3465:ASN:O	1:A:3466:ASN:HB2	2.22	0.40
1:A:3542:LEU:O	1:A:3543:LYS:HB2	2.21	0.40
1:B:1225:PRO:HG2	1:B:1228:ILE:HD13	2.03	0.40
1:B:1820:ARG:O	1:B:1824:GLN:HG2	2.21	0.40
1:B:1926:LEU:HA	1:B:1929:MET:SD	2.62	0.40
1:B:2123:LEU:O	1:B:2127:GLN:HG2	2.22	0.40
1:B:2463:LEU:HD21	1:B:2517:PHE:CZ	2.56	0.40
1:B:3684:GLU:HG2	1:B:3685:GLU:N	2.37	0.40
1:B:4049:VAL:HG21	1:B:4159:ARG:HD2	2.03	0.40
1:B:4224:GLU:O	1:B:4224:GLU:HG2	2.22	0.40
1:D:931:THR:O	1:D:935:LEU:CD1	2.69	0.40
1:D:2369[B]:ARG:HA	1:D:2369[B]:ARG:HD3	1.90	0.40
1:D:3621:HIS:HB3	1:D:3623:LEU:CD1	2.51	0.40
1:D:3686:GLU:O	1:D:3687:GLU:HB2	2.21	0.40
1:D:3835:LEU:HD22	1:D:3880:PHE:CZ	2.57	0.40
1:C:499:THR:HG23	1:C:502:HIS:H	1.86	0.40
1:C:997:ALA:O	1:C:1001:VAL:HG23	2.21	0.40
1:C:2382:GLU:OE2	1:C:2392:ARG:NH1	2.54	0.40
1:C:2426:TYR:O	1:C:2430:ILE:HG12	2.22	0.40
1:C:3588:ASP:O	1:C:3591:LYS: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	A	4385/5037 (87%)	4256 (97%)	123 (3%)	6 (0%)	48	70
1	B	4385/5037 (87%)	4256 (97%)	123 (3%)	6 (0%)	48	70
1	C	4385/5037 (87%)	4256 (97%)	123 (3%)	6 (0%)	48	70
1	D	4385/5037 (87%)	4256 (97%)	123 (3%)	6 (0%)	48	70
2	E	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
2	F	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
2	G	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
2	H	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
All	All	17960/20580 (87%)	17432 (97%)	504 (3%)	24 (0%)	50	70

All (24) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	55	ALA
1	A	908	VAL
1	A	3300	ALA
1	A	3949	ARG
1	B	55	ALA
1	B	908	VAL
1	B	3300	ALA
1	B	3949	ARG
1	D	55	ALA
1	D	908	VAL
1	D	3300	ALA
1	D	3949	ARG
1	C	55	ALA
1	C	908	VAL
1	C	3300	ALA
1	C	3949	ARG
1	A	2669	GLU
1	B	2669	GLU
1	D	2669	GLU
1	C	2669	GLU
1	A	4691	GLN
1	B	4691	GLN
1	D	4691	GLN
1	C	4691	GLN

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

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	3836/4276 (90%)	3817 (100%)	19 (0%)	86	92
1	B	3836/4276 (90%)	3817 (100%)	19 (0%)	86	92
1	C	3836/4276 (90%)	3817 (100%)	19 (0%)	86	92
1	D	3836/4276 (90%)	3817 (100%)	19 (0%)	86	92
2	E	89/90 (99%)	88 (99%)	1 (1%)	70	83
2	F	89/90 (99%)	88 (99%)	1 (1%)	70	83
2	G	89/90 (99%)	88 (99%)	1 (1%)	70	83
2	H	89/90 (99%)	88 (99%)	1 (1%)	70	83
All	All	15700/17464 (90%)	15620 (100%)	80 (0%)	85	92

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

Mol	Chain	Res	Type
1	A	56	GLN
1	A	155	LYS
1	A	483	MET
1	A	945	LYS
1	A	960	MET
1	A	1421	ARG
1	A	1759	ARG
1	A	2089	LYS
1	A	2100[A]	HIS
1	A	2100[B]	HIS
1	A	2268[A]	GLN
1	A	2268[B]	GLN
1	A	2336	ARG
1	A	2738	ARG
1	A	3225	ARG
1	A	3321	ARG
1	A	3499	ARG
1	A	3734	HIS
1	A	3949	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	E	53	GLN
2	H	53	GLN
2	G	53	GLN
2	F	53	GLN
1	B	56	GLN
1	B	155	LYS
1	B	483	MET
1	B	945	LYS
1	B	960	MET
1	B	1421	ARG
1	B	1759	ARG
1	B	2089	LYS
1	B	2100[A]	HIS
1	B	2100[B]	HIS
1	B	2268[A]	GLN
1	B	2268[B]	GLN
1	B	2336	ARG
1	B	2738	ARG
1	B	3225	ARG
1	B	3321	ARG
1	B	3499	ARG
1	B	3734	HIS
1	B	3949	ARG
1	D	56	GLN
1	D	155	LYS
1	D	483	MET
1	D	945	LYS
1	D	960	MET
1	D	1421	ARG
1	D	1759	ARG
1	D	2089	LYS
1	D	2100[A]	HIS
1	D	2100[B]	HIS
1	D	2268[A]	GLN
1	D	2268[B]	GLN
1	D	2336	ARG
1	D	2738	ARG
1	D	3225	ARG
1	D	3321	ARG
1	D	3499	ARG
1	D	3734	HIS
1	D	3949	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	56	GLN
1	C	155	LYS
1	C	483	MET
1	C	945	LYS
1	C	960	MET
1	C	1421	ARG
1	C	1759	ARG
1	C	2089	LYS
1	C	2100[A]	HIS
1	C	2100[B]	HIS
1	C	2268[A]	GLN
1	C	2268[B]	GLN
1	C	2336	ARG
1	C	2738	ARG
1	C	3225	ARG
1	C	3321	ARG
1	C	3499	ARG
1	C	3734	HIS
1	C	3949	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (32) such sidechains are listed below:

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	582	HIS
1	A	838	HIS
1	A	1299	GLN
1	A	2883	HIS
1	A	2931	GLN
1	A	3734	HIS
1	A	3766	GLN
2	E	3	GLN
2	H	3	GLN
2	G	3	GLN
2	F	3	GLN
1	B	582	HIS
1	B	838	HIS
1	B	1299	GLN
1	B	2883	HIS
1	B	2931	GLN
1	B	3734	HIS
1	B	3766	GLN
1	D	582	HIS

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Mol	Chain	Res	Type
1	D	838	HIS
1	D	1299	GLN
1	D	2883	HIS
1	D	2931	GLN
1	D	3734	HIS
1	D	3766	GLN
1	C	582	HIS
1	C	838	HIS
1	C	1299	GLN
1	C	2883	HIS
1	C	2931	GLN
1	C	3734	HIS
1	C	3766	GLN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

### 5.6 Ligand geometry [i](#)

Of 16 ligands modelled in this entry, 8 are monoatomic - leaving 8 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
3	ATP	B	5301	-	28,33,33	0.65	0	34,52,52	0.95	1 (2%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
3	ATP	A	5301	-	28,33,33	0.65	0	34,52,52	0.95	1 (2%)
6	A1BD3	A	5304	-	11,15,15	5.56	6 (54%)	13,21,21	3.55	8 (61%)
3	ATP	C	5301	-	28,33,33	0.65	0	34,52,52	0.95	1 (2%)
3	ATP	D	5301	-	28,33,33	0.64	0	34,52,52	0.95	1 (2%)
6	A1BD3	B	5304	-	11,15,15	5.56	6 (54%)	13,21,21	3.54	8 (61%)
6	A1BD3	C	5304	-	11,15,15	5.56	6 (54%)	13,21,21	3.55	8 (61%)
6	A1BD3	D	5304	-	11,15,15	5.56	6 (54%)	13,21,21	3.55	8 (61%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	ATP	B	5301	-	-	10/18/38/38	0/3/3/3
3	ATP	A	5301	-	-	10/18/38/38	0/3/3/3
6	A1BD3	A	5304	-	-	1/3/3/3	0/2/2/2
3	ATP	C	5301	-	-	10/18/38/38	0/3/3/3
3	ATP	D	5301	-	-	10/18/38/38	0/3/3/3
6	A1BD3	B	5304	-	-	1/3/3/3	0/2/2/2
6	A1BD3	C	5304	-	-	1/3/3/3	0/2/2/2
6	A1BD3	D	5304	-	-	1/3/3/3	0/2/2/2

All (24) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	D	5304	A1BD3	C8-N3	10.26	1.49	1.37
6	A	5304	A1BD3	C8-N3	10.19	1.49	1.37
6	B	5304	A1BD3	C8-N3	10.17	1.49	1.37
6	C	5304	A1BD3	C8-N3	10.17	1.49	1.37
6	A	5304	A1BD3	O2-C8	9.75	1.40	1.23
6	B	5304	A1BD3	O2-C8	9.75	1.40	1.23
6	C	5304	A1BD3	O2-C8	9.75	1.40	1.23
6	D	5304	A1BD3	O2-C8	9.74	1.40	1.23
6	A	5304	A1BD3	O1-C1	7.31	1.40	1.23
6	D	5304	A1BD3	O1-C1	7.31	1.40	1.23
6	C	5304	A1BD3	O1-C1	7.30	1.40	1.23
6	B	5304	A1BD3	O1-C1	7.28	1.40	1.23
6	B	5304	A1BD3	C8-N4	6.32	1.49	1.38
6	C	5304	A1BD3	C8-N4	6.32	1.49	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	A	5304	A1BD3	C8-N4	6.28	1.48	1.38
6	D	5304	A1BD3	C8-N4	6.24	1.48	1.38
6	A	5304	A1BD3	C4-N3	4.86	1.46	1.39
6	B	5304	A1BD3	C4-N3	4.84	1.46	1.39
6	D	5304	A1BD3	C4-N3	4.84	1.46	1.39
6	C	5304	A1BD3	C4-N3	4.84	1.46	1.39
6	B	5304	A1BD3	C1-N4	4.80	1.45	1.37
6	A	5304	A1BD3	C1-N4	4.76	1.45	1.37
6	C	5304	A1BD3	C1-N4	4.76	1.45	1.37
6	D	5304	A1BD3	C1-N4	4.75	1.45	1.37

All (36) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	C	5304	A1BD3	C1-N4-C8	-8.20	119.67	127.38
6	A	5304	A1BD3	C1-N4-C8	-8.17	119.69	127.38
6	B	5304	A1BD3	C1-N4-C8	-8.17	119.69	127.38
6	D	5304	A1BD3	C1-N4-C8	-8.15	119.72	127.38
6	C	5304	A1BD3	C3-N2-C4	6.83	114.09	101.92
6	B	5304	A1BD3	C3-N2-C4	6.82	114.09	101.92
6	D	5304	A1BD3	C3-N2-C4	6.82	114.08	101.92
6	A	5304	A1BD3	C3-N2-C4	6.81	114.07	101.92
6	D	5304	A1BD3	C4-N3-C8	-4.06	118.93	121.53
6	B	5304	A1BD3	C4-N3-C8	-4.00	118.97	121.53
6	C	5304	A1BD3	C4-N3-C8	-4.00	118.97	121.53
6	A	5304	A1BD3	C4-N3-C8	-4.00	118.97	121.53
6	C	5304	A1BD3	C2-C1-N4	2.88	119.57	114.07
6	A	5304	A1BD3	C2-C1-N4	2.87	119.54	114.07
6	D	5304	A1BD3	C2-C1-N4	2.87	119.54	114.07
6	B	5304	A1BD3	C2-C1-N4	2.85	119.51	114.07
6	D	5304	A1BD3	C5-N3-C8	2.81	120.48	117.32
6	A	5304	A1BD3	C5-N3-C8	2.79	120.46	117.32
6	C	5304	A1BD3	C5-N3-C8	2.79	120.46	117.32
6	B	5304	A1BD3	C5-N3-C8	2.77	120.43	117.32
6	D	5304	A1BD3	O2-C8-N3	-2.67	120.06	122.03
6	A	5304	A1BD3	O2-C8-N3	-2.61	120.10	122.03
6	B	5304	A1BD3	O2-C8-N3	-2.57	120.13	122.03
6	C	5304	A1BD3	O2-C8-N3	-2.57	120.13	122.03
6	D	5304	A1BD3	N4-C8-N3	2.39	119.87	115.53
6	A	5304	A1BD3	N4-C8-N3	2.38	119.85	115.53
6	B	5304	A1BD3	N4-C8-N3	2.38	119.84	115.53
6	C	5304	A1BD3	N4-C8-N3	2.38	119.84	115.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	B	5301	ATP	C5-C6-N6	2.30	123.82	120.31
3	A	5301	ATP	C5-C6-N6	2.26	123.75	120.31
3	D	5301	ATP	C5-C6-N6	2.24	123.72	120.31
3	C	5301	ATP	C5-C6-N6	2.24	123.72	120.31
6	D	5304	A1BD3	O1-C1-C2	-2.10	120.16	124.32
6	A	5304	A1BD3	O1-C1-C2	-2.09	120.18	124.32
6	C	5304	A1BD3	O1-C1-C2	-2.09	120.19	124.32
6	B	5304	A1BD3	O1-C1-C2	-2.08	120.20	124.32

There are no chirality outliers.

All (44) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	5301	ATP	C5'-O5'-PA-O1A
3	A	5301	ATP	C5'-O5'-PA-O3A
3	B	5301	ATP	C5'-O5'-PA-O1A
3	B	5301	ATP	C5'-O5'-PA-O3A
3	D	5301	ATP	C5'-O5'-PA-O1A
3	D	5301	ATP	C5'-O5'-PA-O3A
3	C	5301	ATP	C5'-O5'-PA-O1A
3	C	5301	ATP	C5'-O5'-PA-O3A
6	A	5304	A1BD3	N3-C5-C6-C7
6	B	5304	A1BD3	N3-C5-C6-C7
6	D	5304	A1BD3	N3-C5-C6-C7
6	C	5304	A1BD3	N3-C5-C6-C7
3	A	5301	ATP	O4'-C4'-C5'-O5'
3	B	5301	ATP	O4'-C4'-C5'-O5'
3	D	5301	ATP	O4'-C4'-C5'-O5'
3	C	5301	ATP	O4'-C4'-C5'-O5'
3	A	5301	ATP	C3'-C4'-C5'-O5'
3	B	5301	ATP	C3'-C4'-C5'-O5'
3	D	5301	ATP	C3'-C4'-C5'-O5'
3	C	5301	ATP	C3'-C4'-C5'-O5'
3	A	5301	ATP	PG-O3B-PB-O3A
3	B	5301	ATP	PG-O3B-PB-O3A
3	D	5301	ATP	PG-O3B-PB-O3A
3	C	5301	ATP	PG-O3B-PB-O3A
3	A	5301	ATP	PB-O3A-PA-O5'
3	B	5301	ATP	PB-O3A-PA-O5'
3	D	5301	ATP	PB-O3A-PA-O5'
3	C	5301	ATP	PB-O3A-PA-O5'
3	D	5301	ATP	C4'-C5'-O5'-PA

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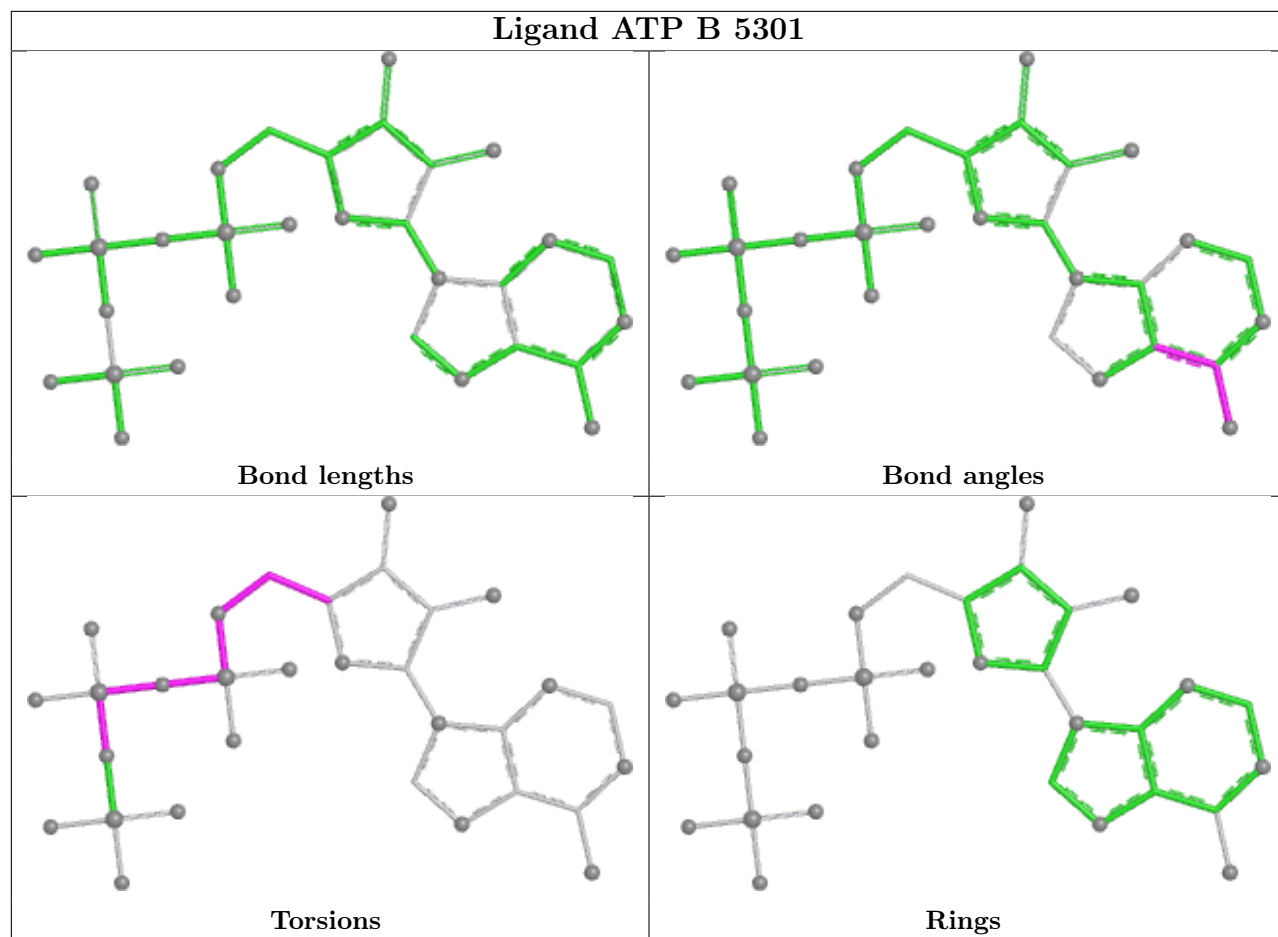
Mol	Chain	Res	Type	Atoms
3	A	5301	ATP	C4'-C5'-O5'-PA
3	B	5301	ATP	C4'-C5'-O5'-PA
3	C	5301	ATP	C4'-C5'-O5'-PA
3	A	5301	ATP	C5'-O5'-PA-O2A
3	B	5301	ATP	C5'-O5'-PA-O2A
3	D	5301	ATP	C5'-O5'-PA-O2A
3	C	5301	ATP	C5'-O5'-PA-O2A
3	A	5301	ATP	PA-O3A-PB-O2B
3	B	5301	ATP	PA-O3A-PB-O2B
3	D	5301	ATP	PA-O3A-PB-O2B
3	C	5301	ATP	PA-O3A-PB-O2B
3	A	5301	ATP	PG-O3B-PB-O2B
3	B	5301	ATP	PG-O3B-PB-O2B
3	D	5301	ATP	PG-O3B-PB-O2B
3	C	5301	ATP	PG-O3B-PB-O2B

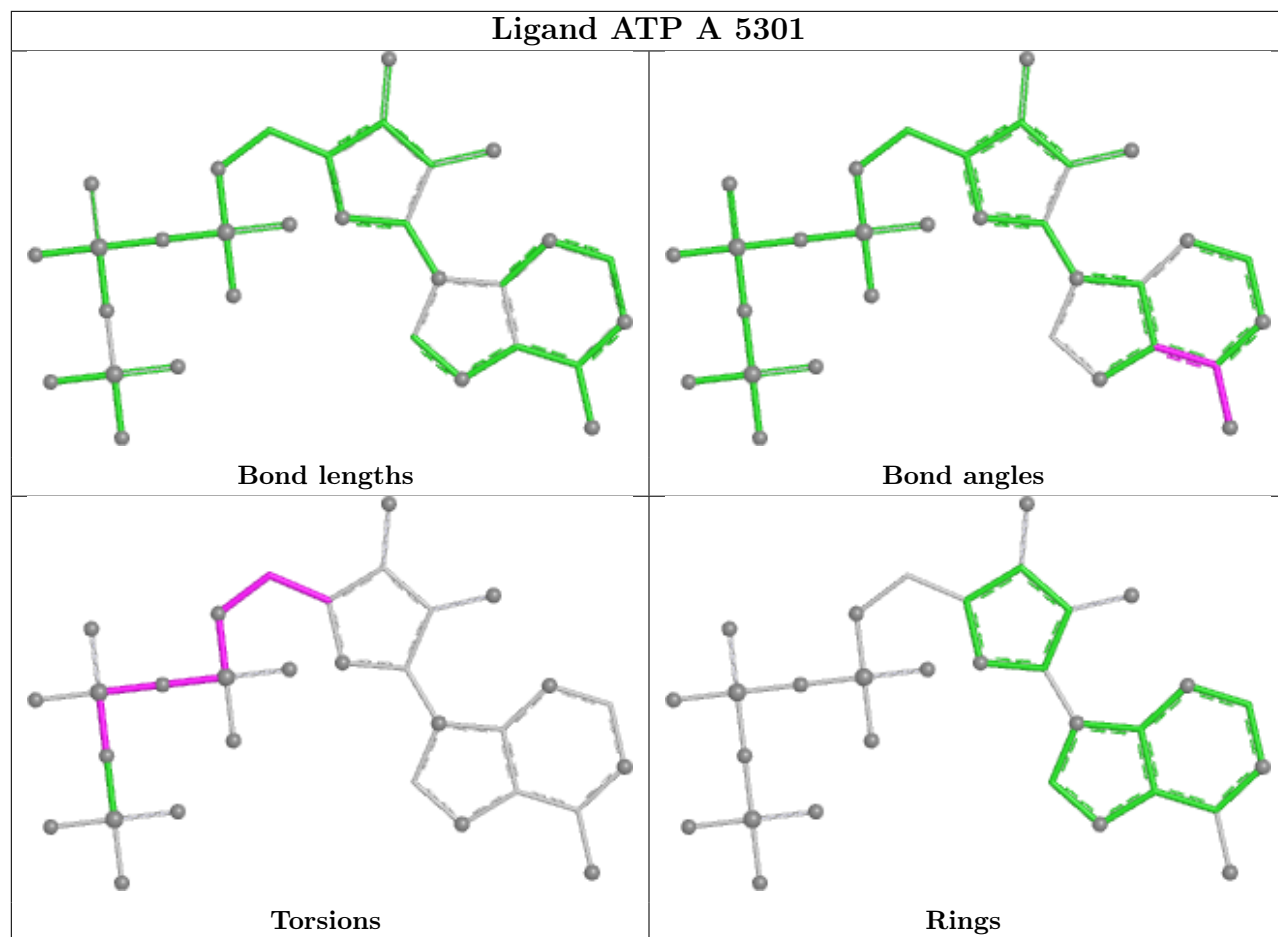
There are no ring outliers.

4 monomers are involved in 4 short contacts:

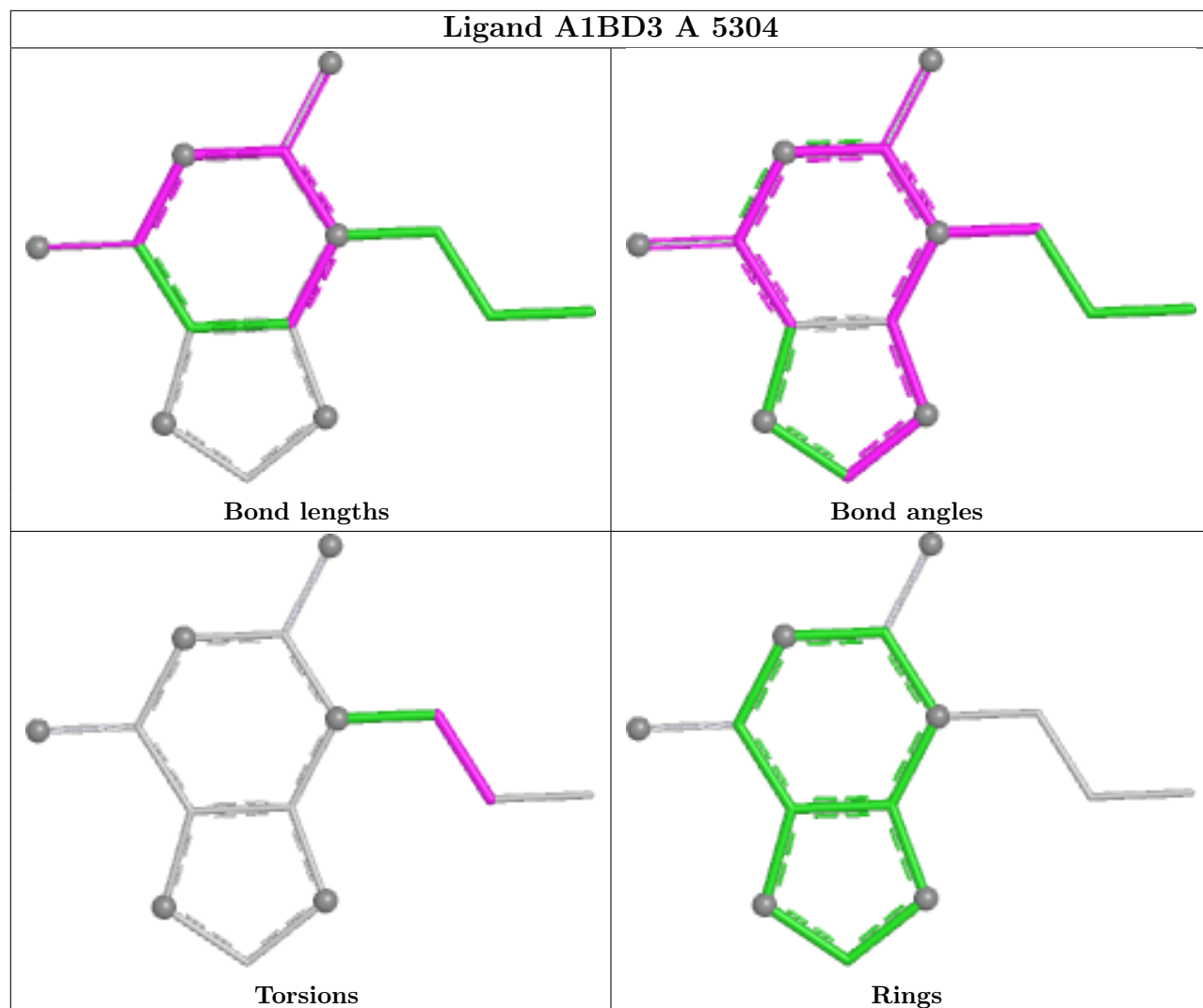
Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	B	5301	ATP	1	0
3	A	5301	ATP	1	0
3	C	5301	ATP	1	0
3	D	5301	ATP	1	0

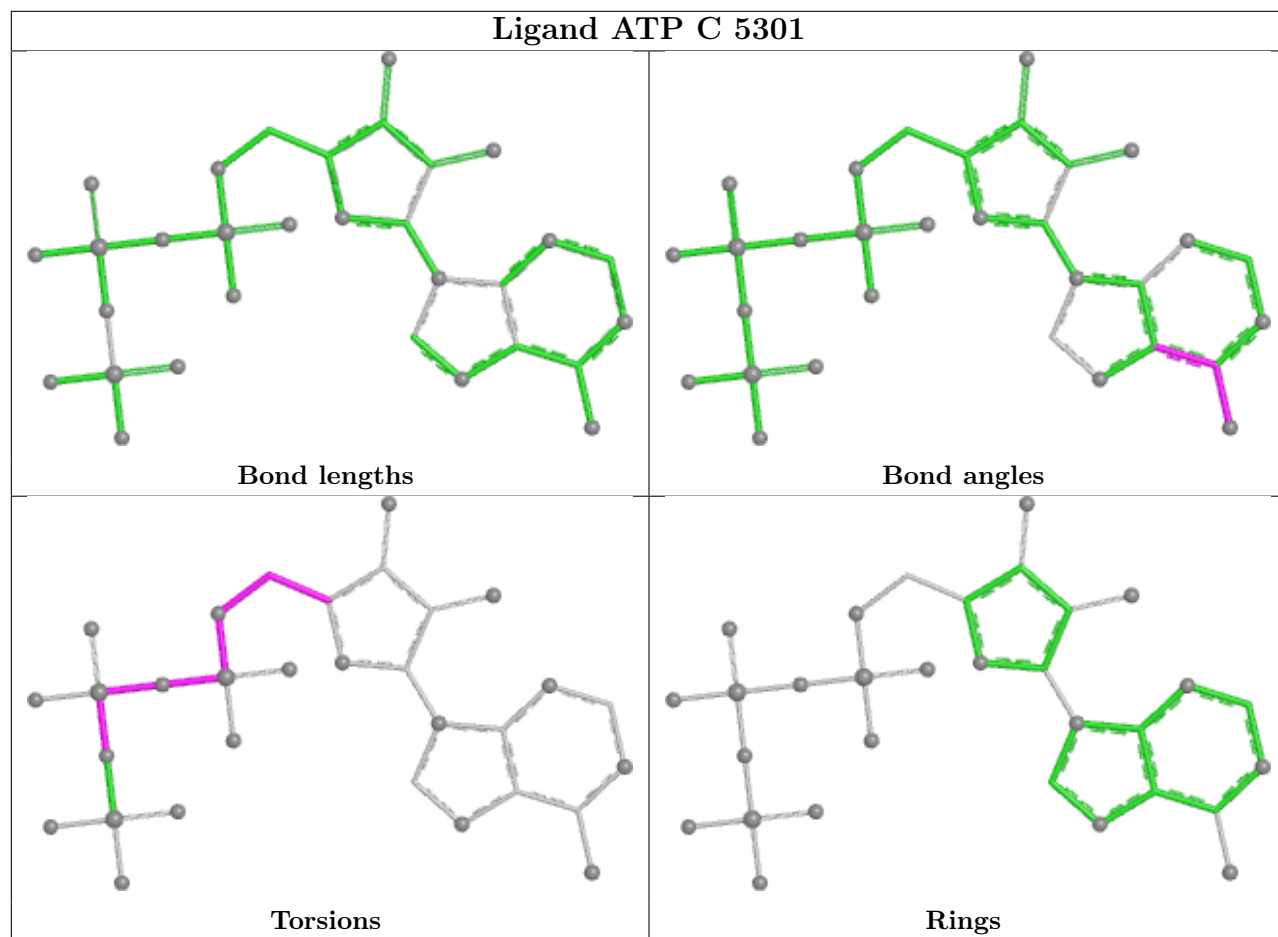
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

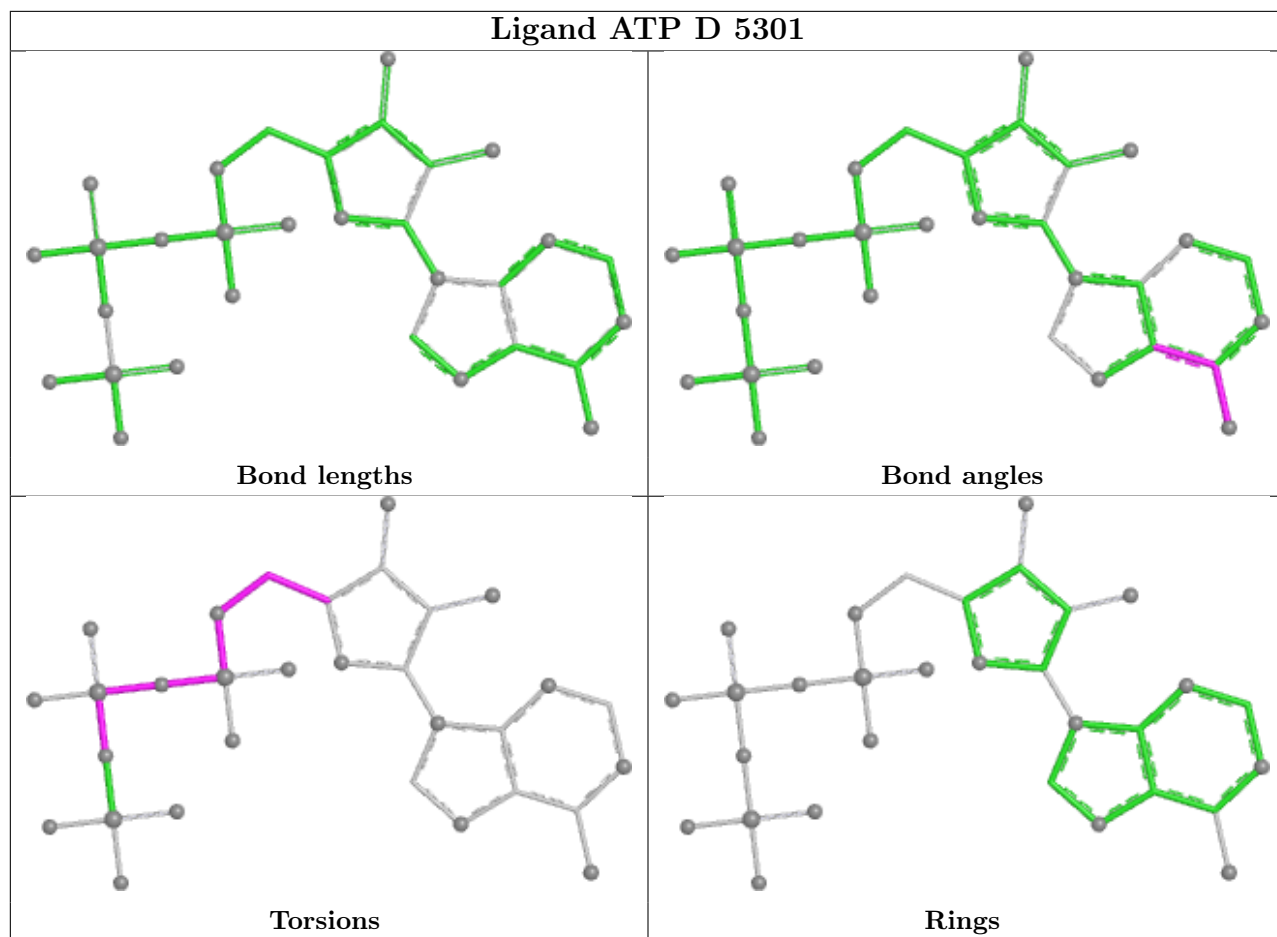


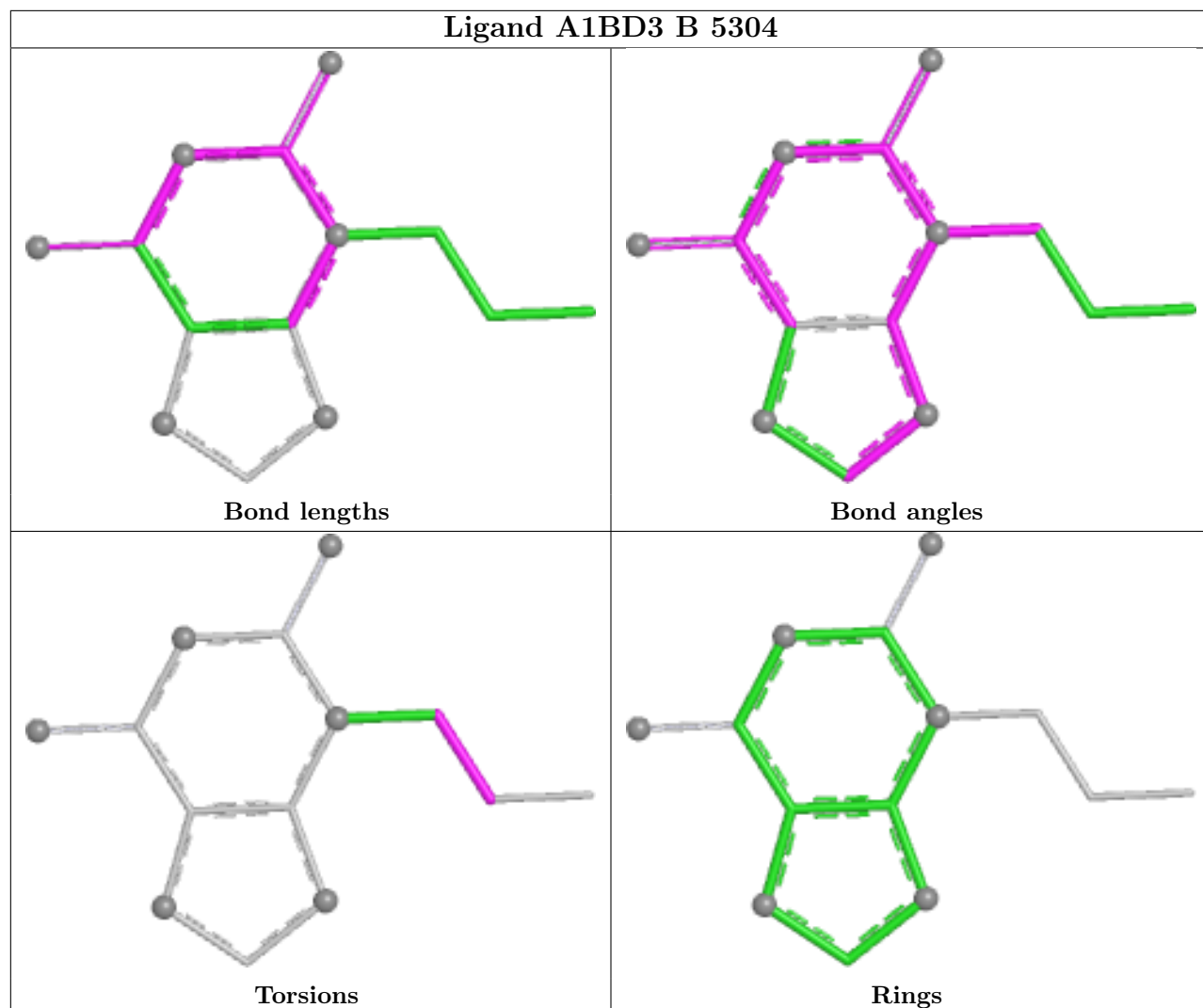


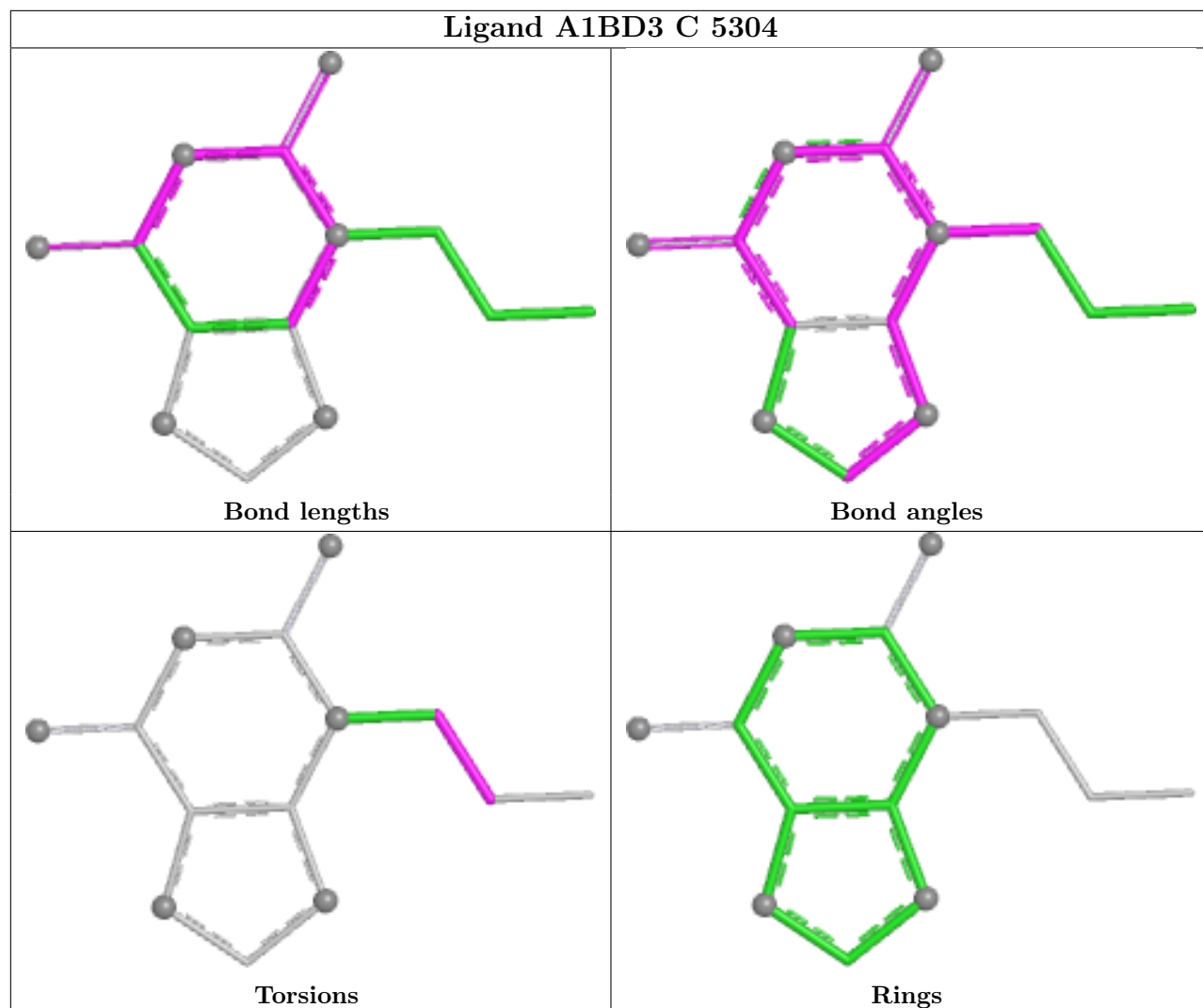


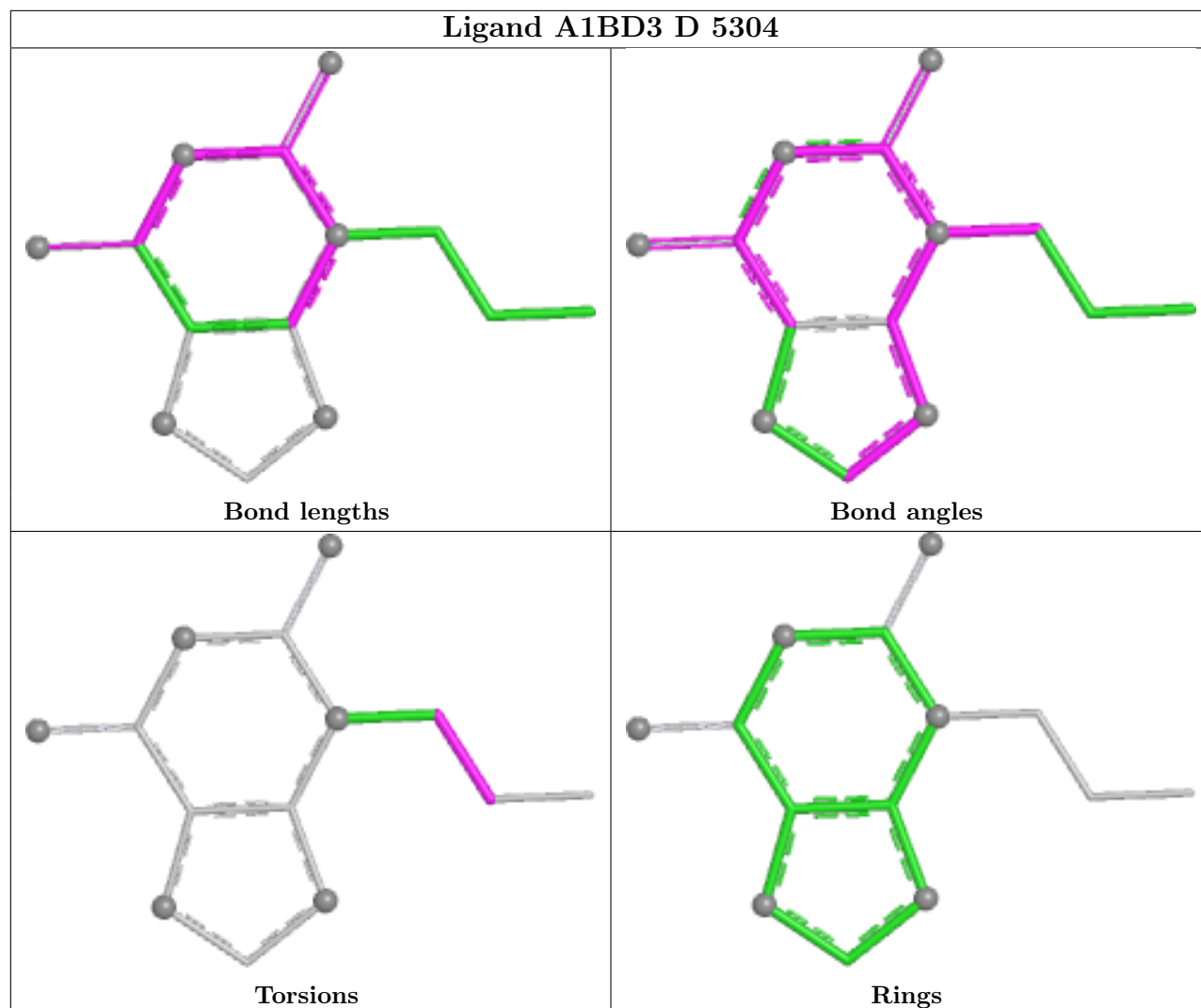












## 5.7 Other polymers [i](#)

There are no such residues in this entry.

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

There are no chain breaks in this entry.

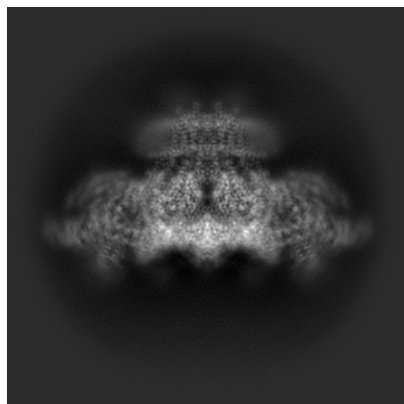
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-47390. These allow visual inspection of the internal detail of the map and identification of artifacts.

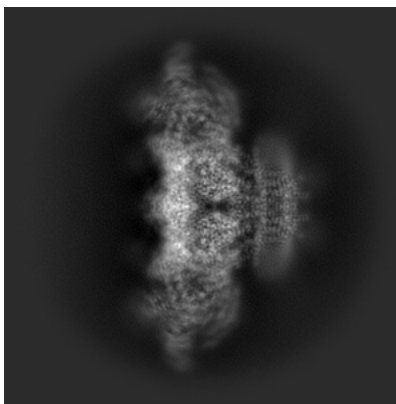
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

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

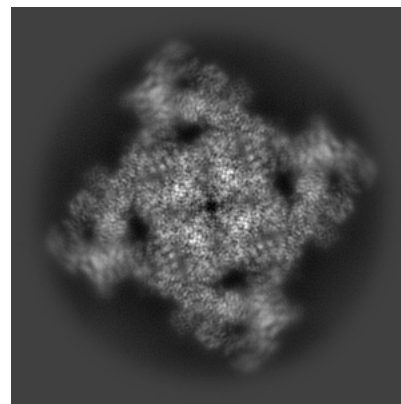
#### 6.1.1 Primary map



X

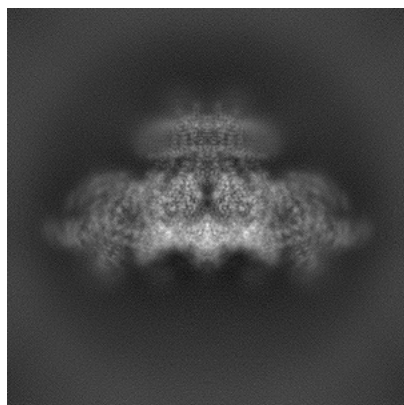


Y

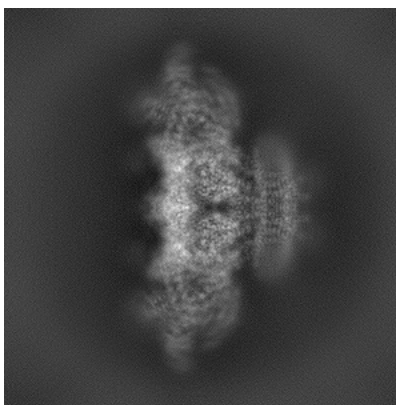


Z

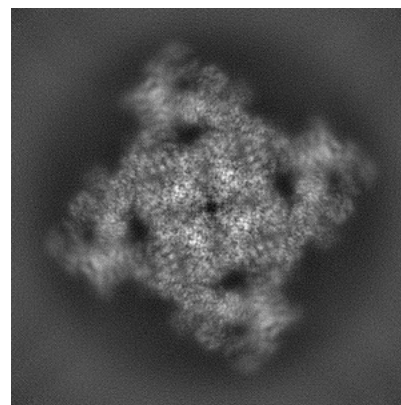
#### 6.1.2 Raw map



X



Y



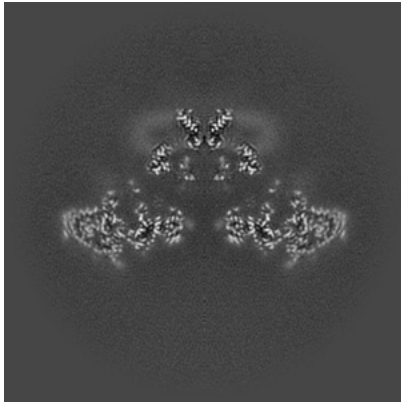
Z

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

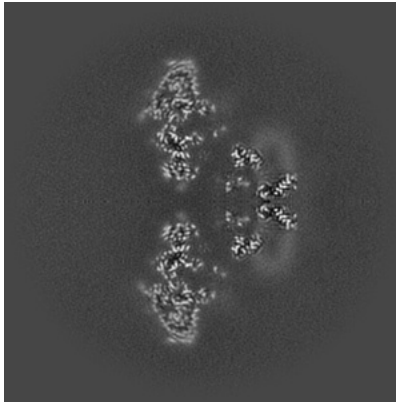


## 6.2 Central slices [i](#)

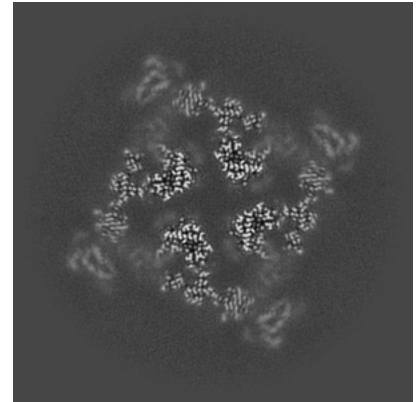
### 6.2.1 Primary map



X Index: 256

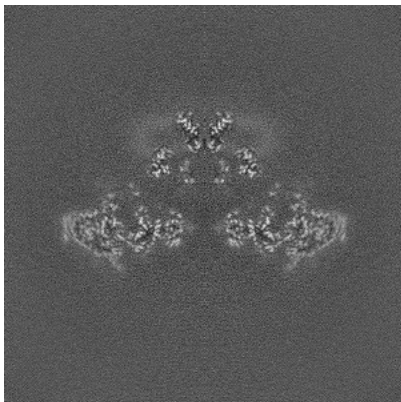


Y Index: 256

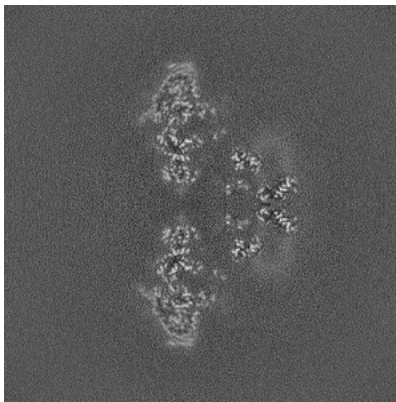


Z Index: 256

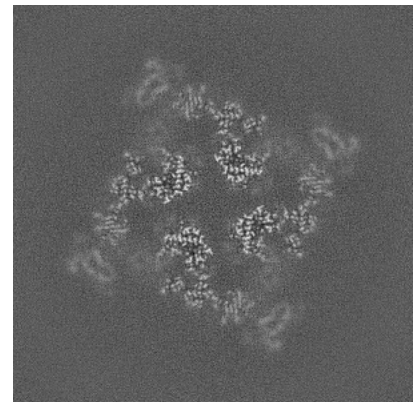
### 6.2.2 Raw map



X Index: 256



Y Index: 256

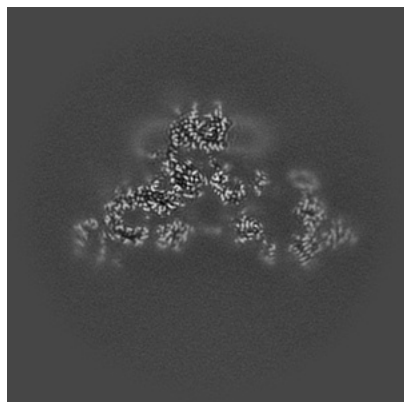


Z Index: 256

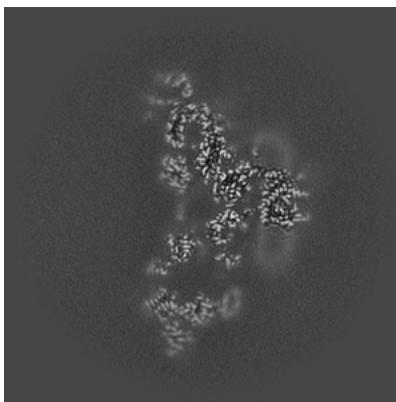
The images above show central slices of the map in three orthogonal directions.

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

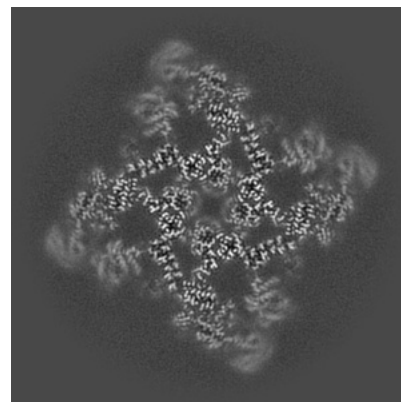
### 6.3.1 Primary map



X Index: 239

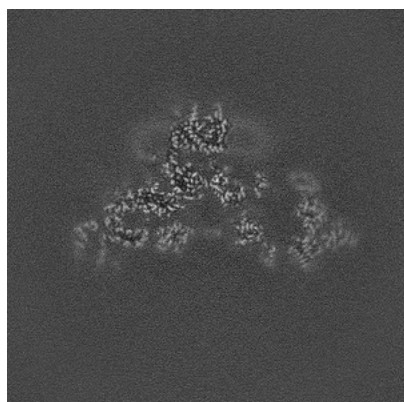


Y Index: 239

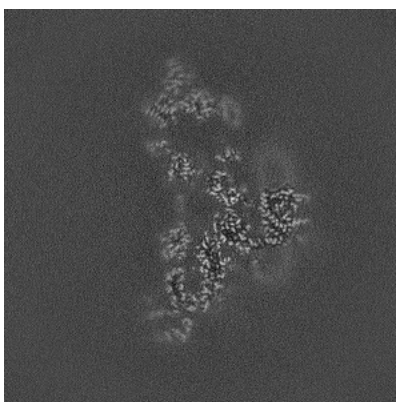


Z Index: 229

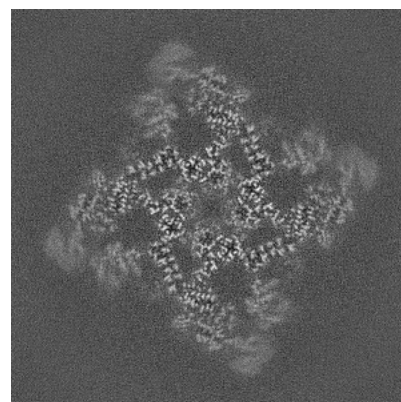
### 6.3.2 Raw map



X Index: 239



Y Index: 273

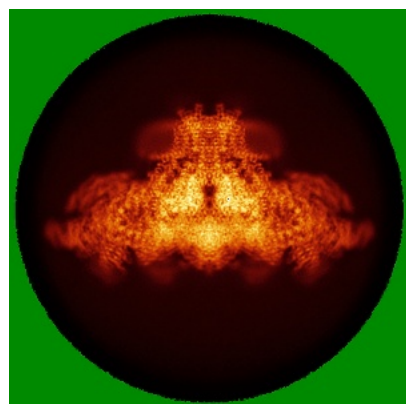


Z Index: 229

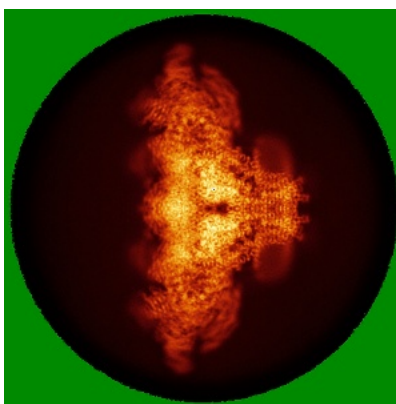
The images above show the largest variance slices of the map in three orthogonal directions.

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

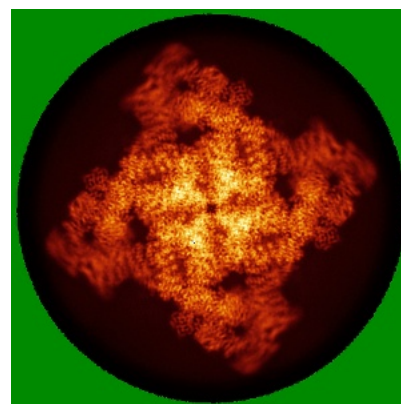
### 6.4.1 Primary map



X

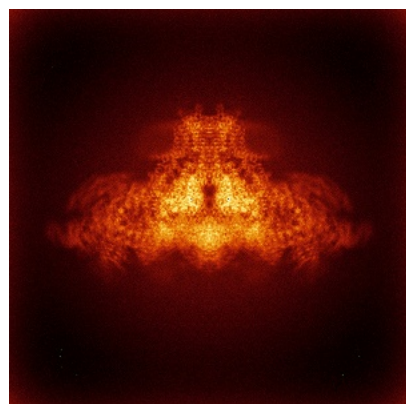


Y

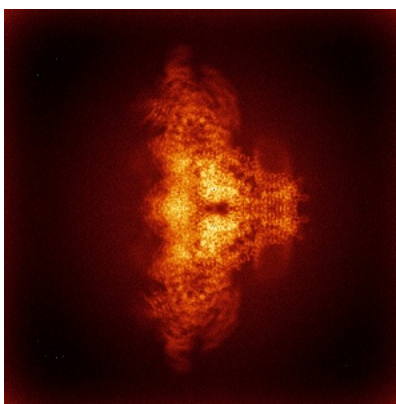


Z

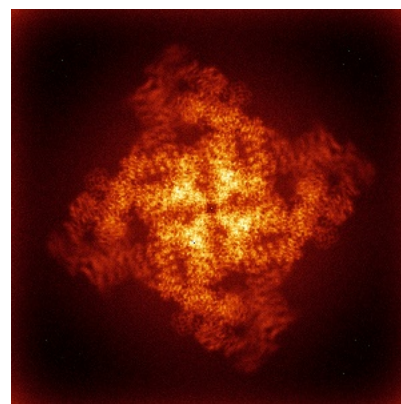
### 6.4.2 Raw map



X



Y

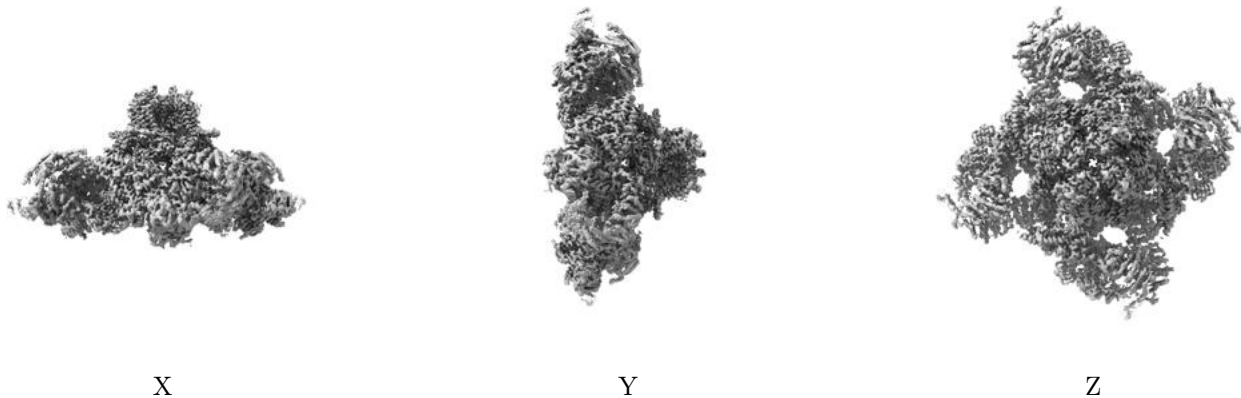


Z

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.

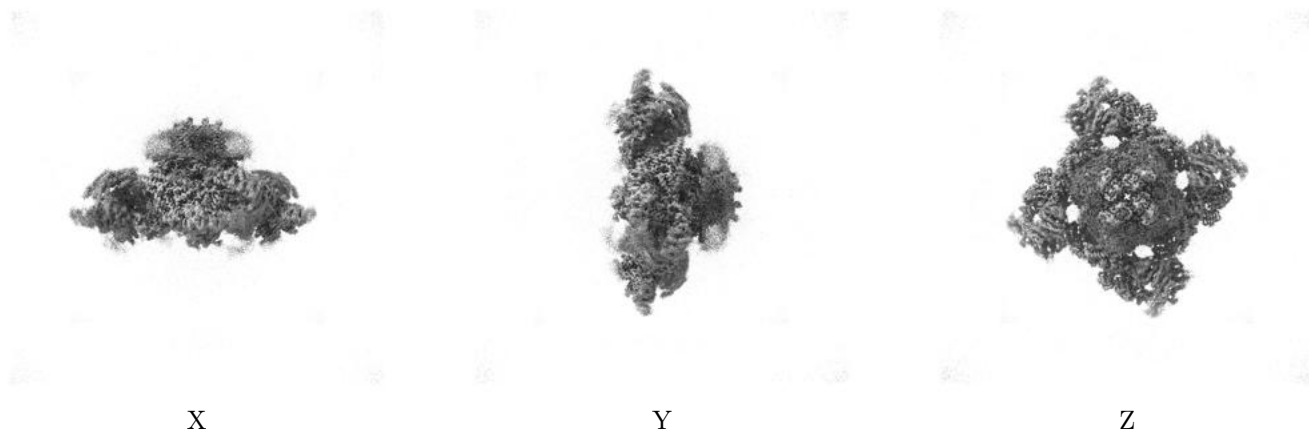
## 6.5 Orthogonal surface views [i](#)

### 6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.1. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

### 6.5.2 Raw map



These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

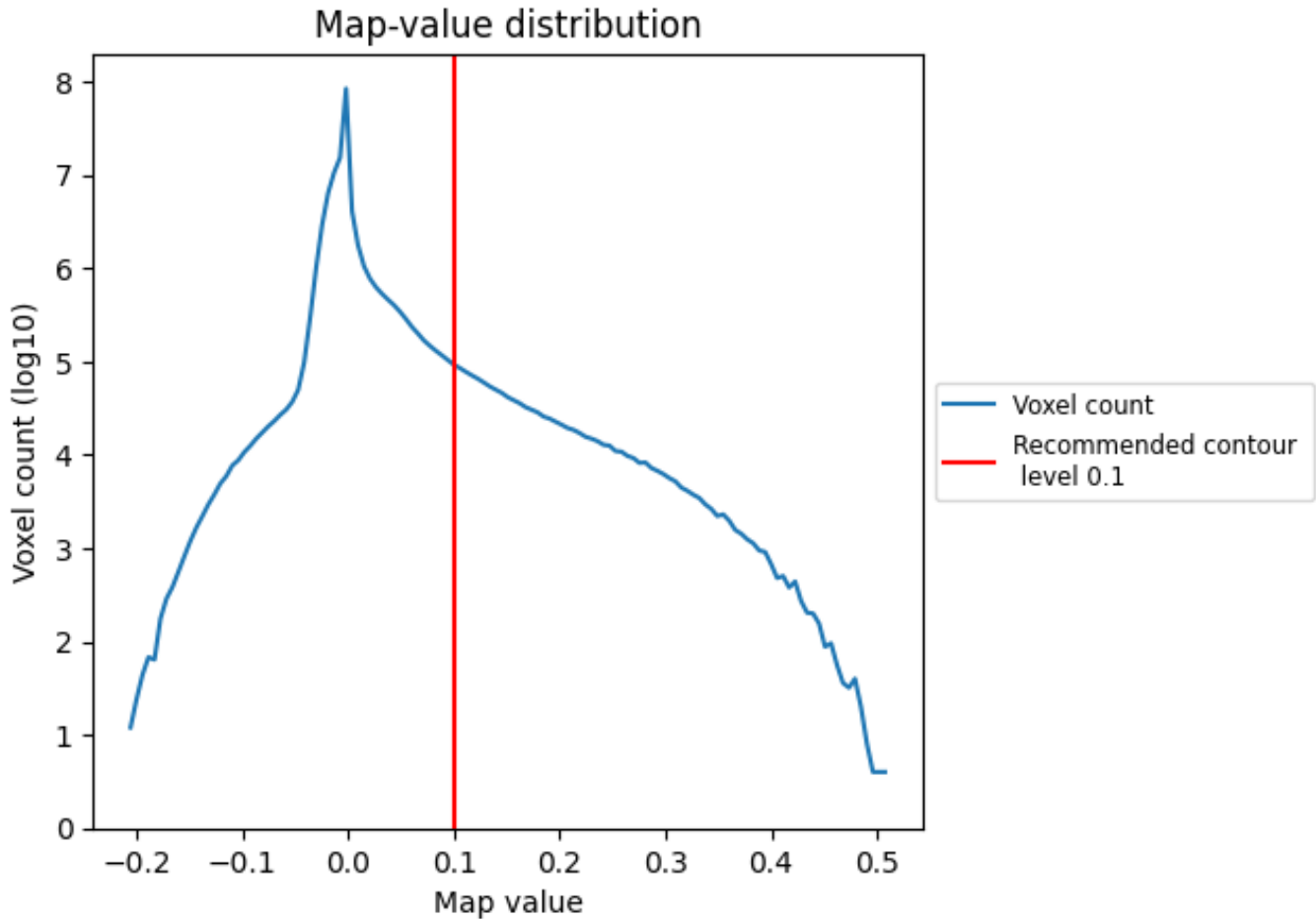
## 6.6 Mask visualisation [i](#)

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.

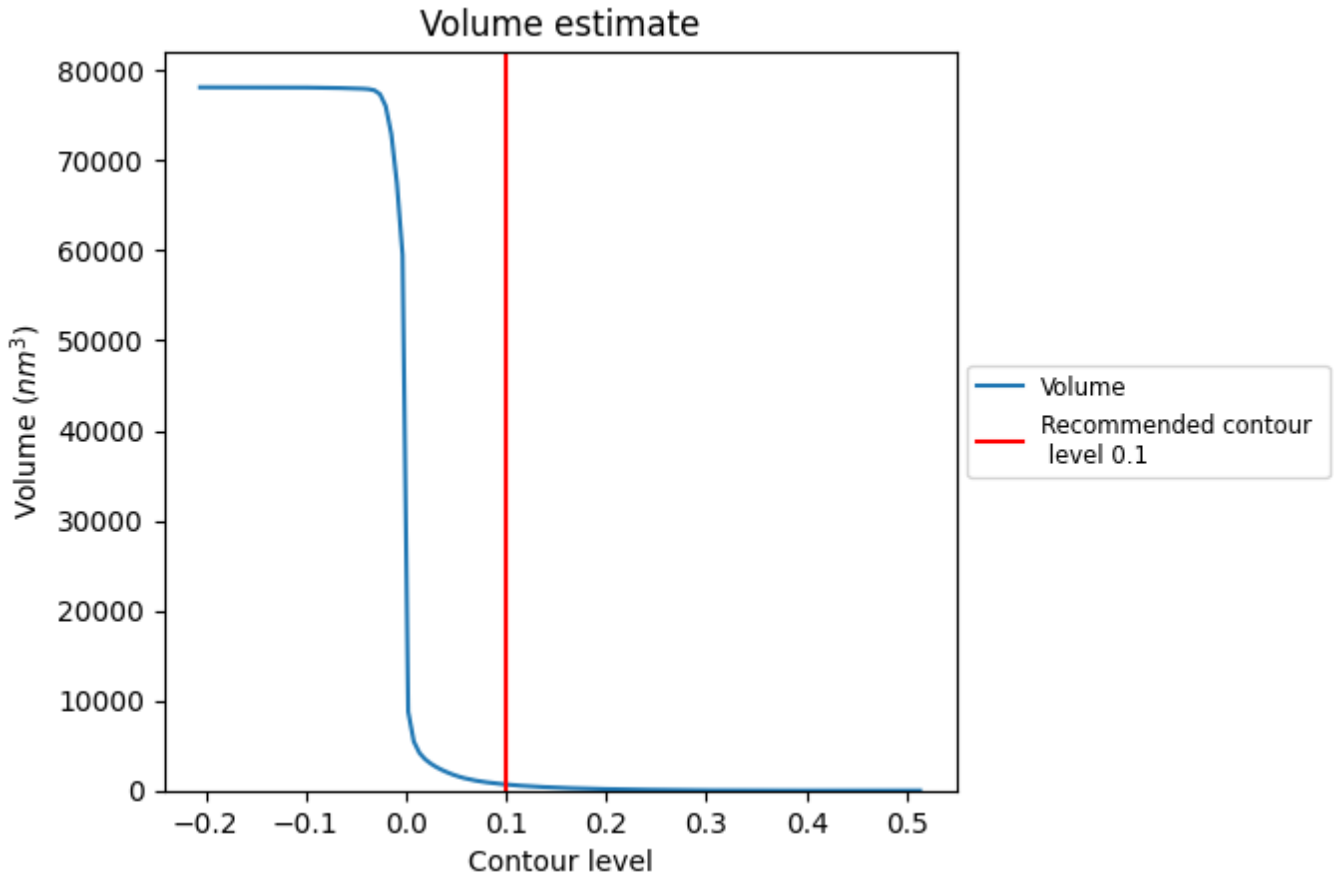
### 7.1 Map-value distribution [i](#)



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.



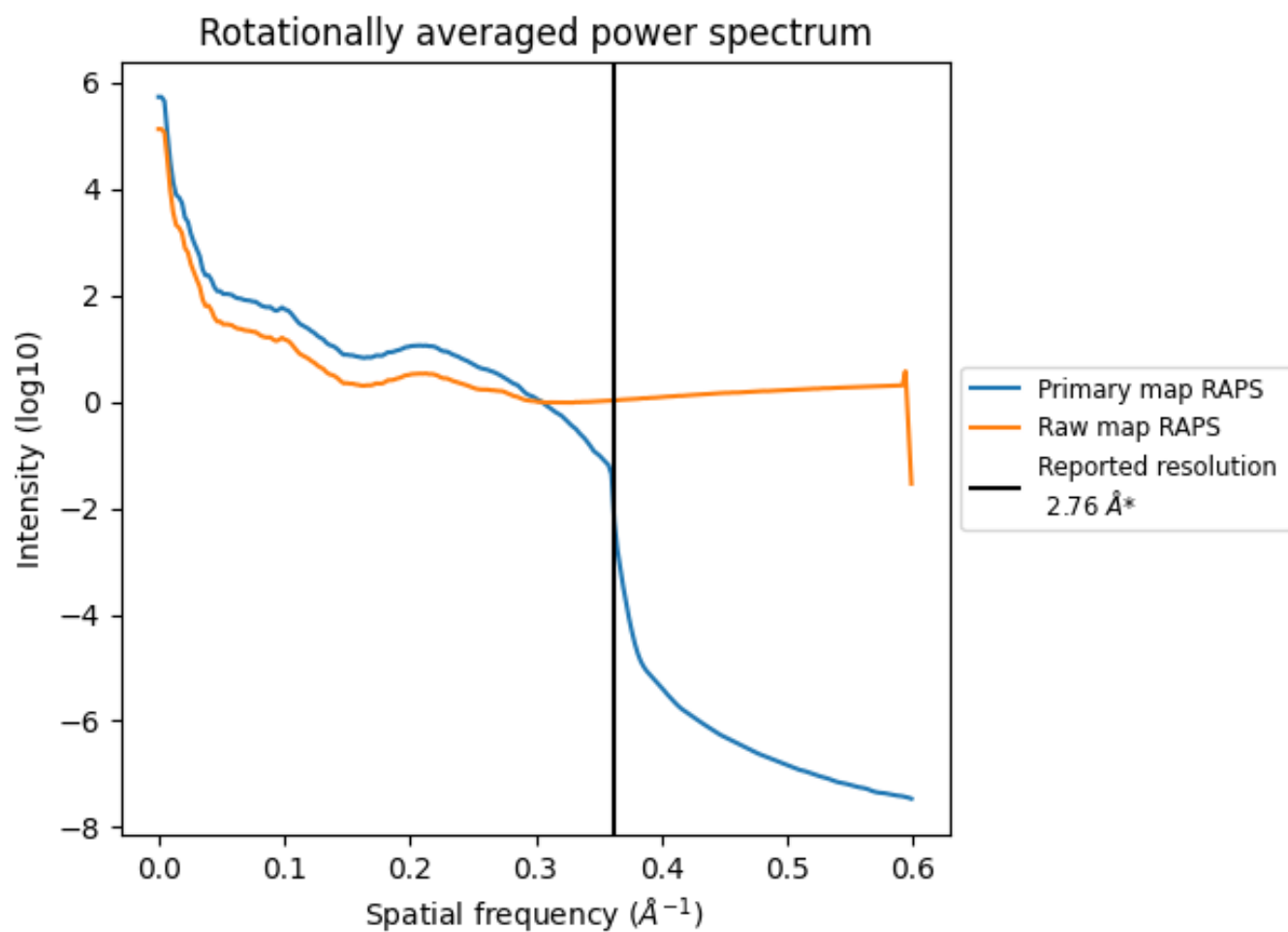
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 676 nm<sup>3</sup>; this corresponds to an approximate mass of 611 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

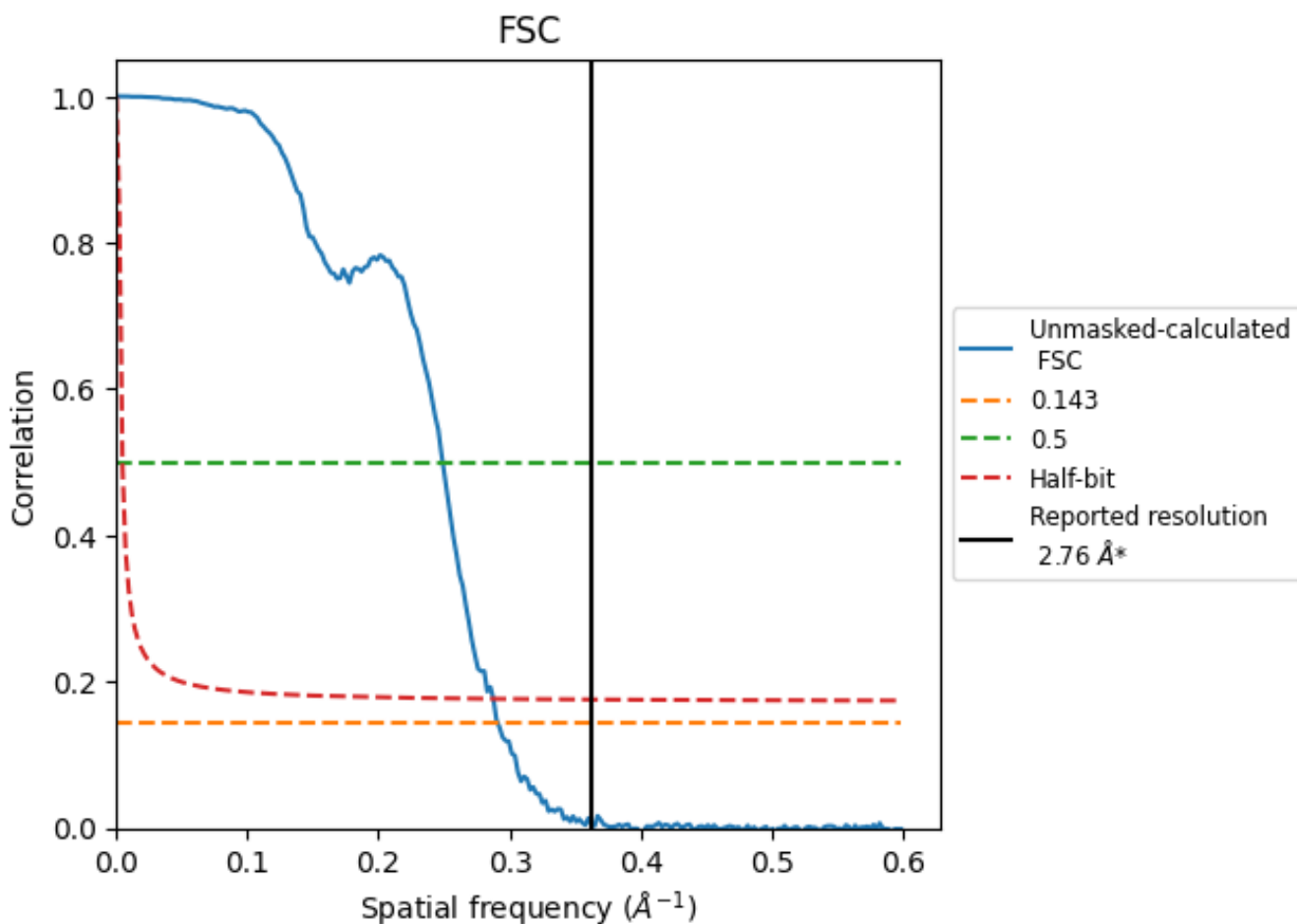


\*Reported resolution corresponds to spatial frequency of 0.362 Å<sup>-1</sup>

## 8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

### 8.1 FSC [i](#)



\*Reported resolution corresponds to spatial frequency of 0.362 Å<sup>-1</sup>



## 8.2 Resolution estimates [i](#)

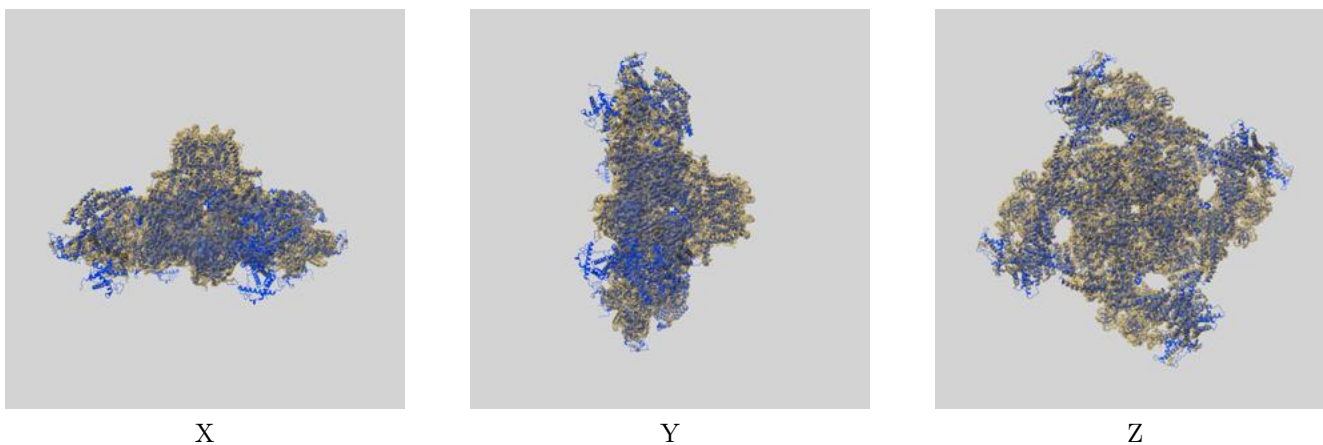
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	2.76	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	3.44	4.02	3.48

\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 3.44 differs from the reported value 2.76 by more than 10 %

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

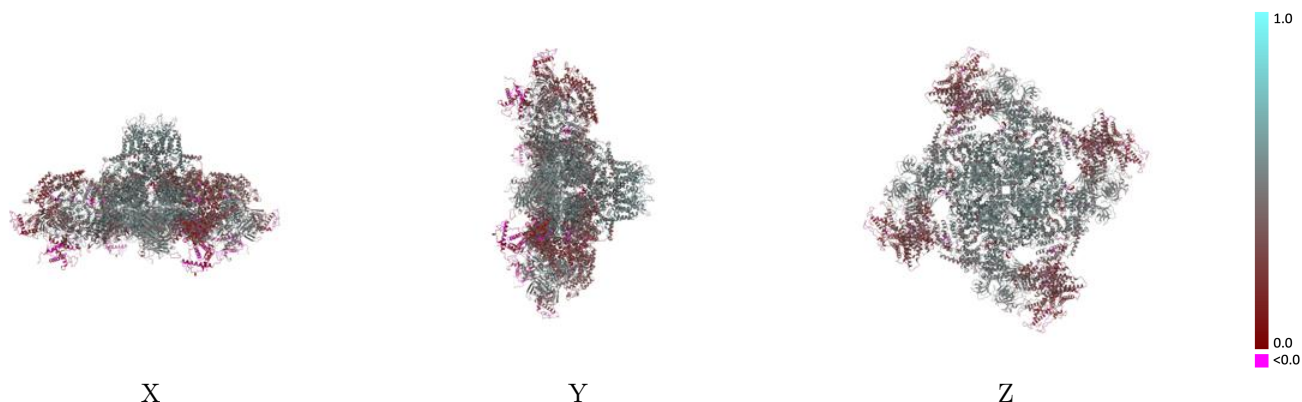
This section contains information regarding the fit between EMDB map EMD-47390 and PDB model 9E1D. Per-residue inclusion information can be found in section 3 on page 6.

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



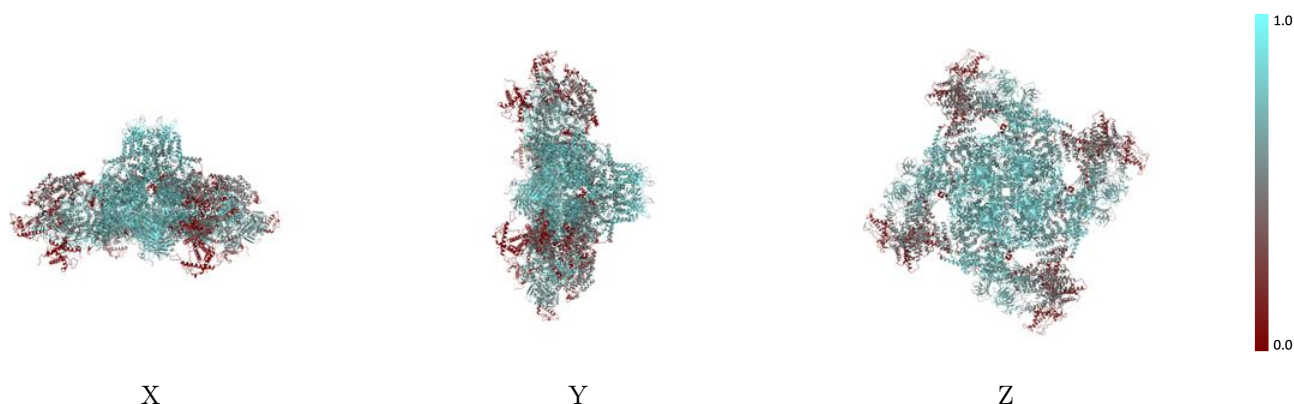
The images above show the 3D surface view of the map at the recommended contour level 0.1 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



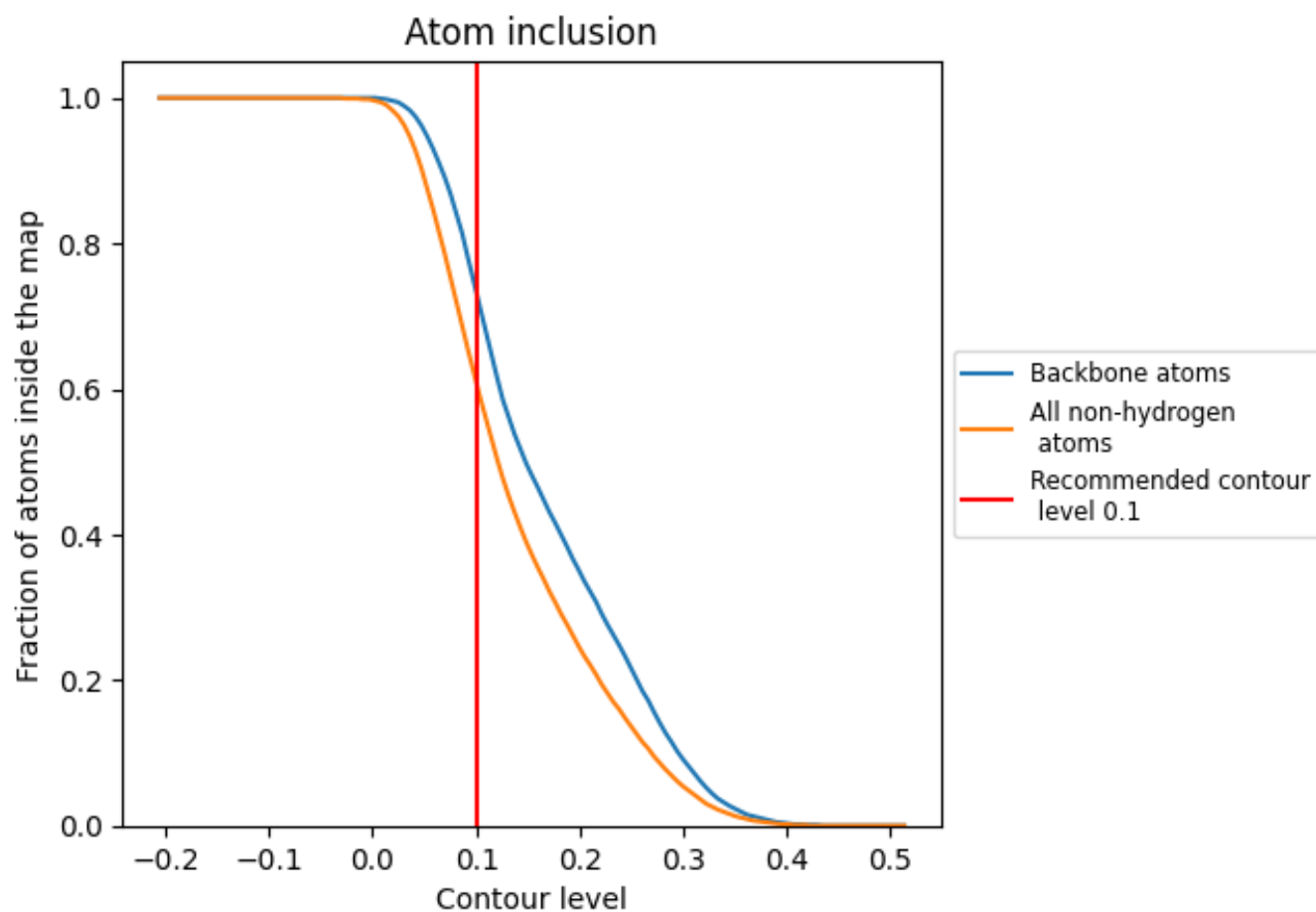
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.1).



















## 9.4 Atom inclusion [i](#)



At the recommended contour level, 73% of all backbone atoms, 61% 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 (0.1) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.6090	 0.4220
A	 0.6100	 0.4200
B	 0.6090	 0.4200
C	 0.6090	 0.4200
D	 0.6090	 0.4200
E	 0.6110	 0.4940
F	 0.6140	 0.4920
G	 0.6100	 0.4900
H	 0.6090	 0.4920

