



Full wwPDB EM Validation Report ⓘ

Mar 6, 2026 – 10:55 PM UTC

PDB ID : 8UXL / pdb_00008uxl
EMDB ID : EMD-42768
Title : Structure of PKA phosphorylated human RyR2-R420W in the primed state
in the presence of calcium and calmodulin
Authors : Miotto, M.C.; Marks, A.R.
Deposited on : 2023-11-09
Resolution : 3.12 Å(reported)
Based on initial model : 7UA5

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

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

A user guide is available at

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

The types of validation reports are described at

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

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

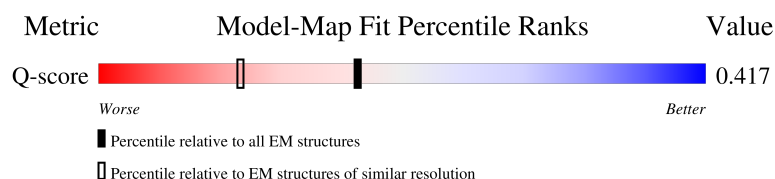
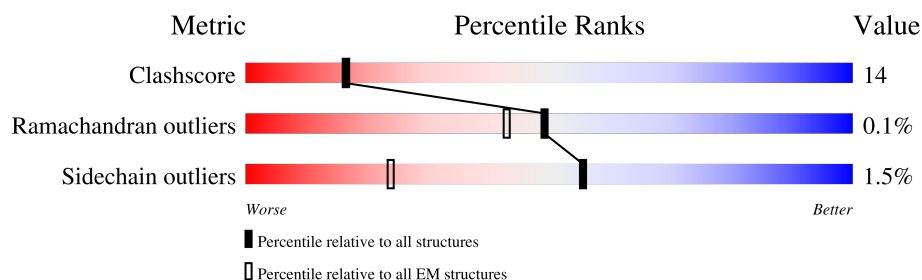
EMDB validation analysis : 0.0.1.dev132
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.12 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	14478 (2.62 - 3.62)

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

Mol	Chain	Length	Quality of chain
1	A	4967	
1	B	4967	
1	C	4967	
1	D	4967	

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Mol	Chain	Length	Quality of chain
2	E	108	 76%21% ..
2	F	108	 78%19% ..
2	G	108	 77%20% ..
2	H	108	 75%22% ..
3	I	149	 59%31%5% ..
3	J	149	 56%34%5% ..
3	K	149	 58%31%6% ..
3	L	149	 56%33%5% ..

2 Entry composition [i](#)

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

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

- Molecule 1 is a protein called Ryanodine receptor 2.

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

There are 4 discrepancies between the modelled and reference sequences:

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

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

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

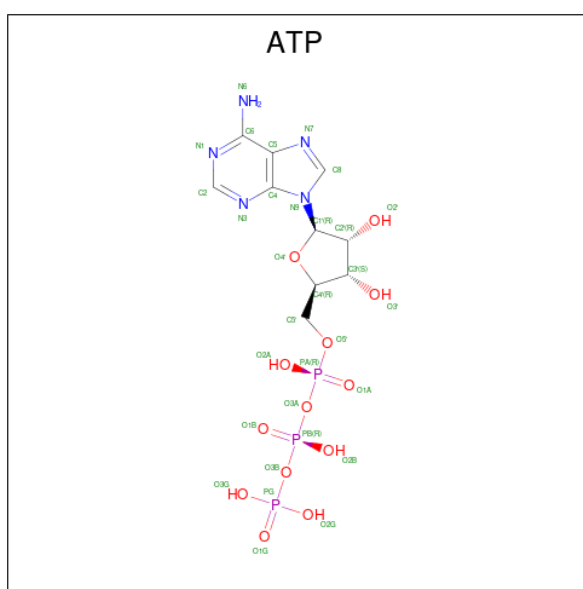
- Molecule 3 is a protein called Calmodulin-1.

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

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

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

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



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

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

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

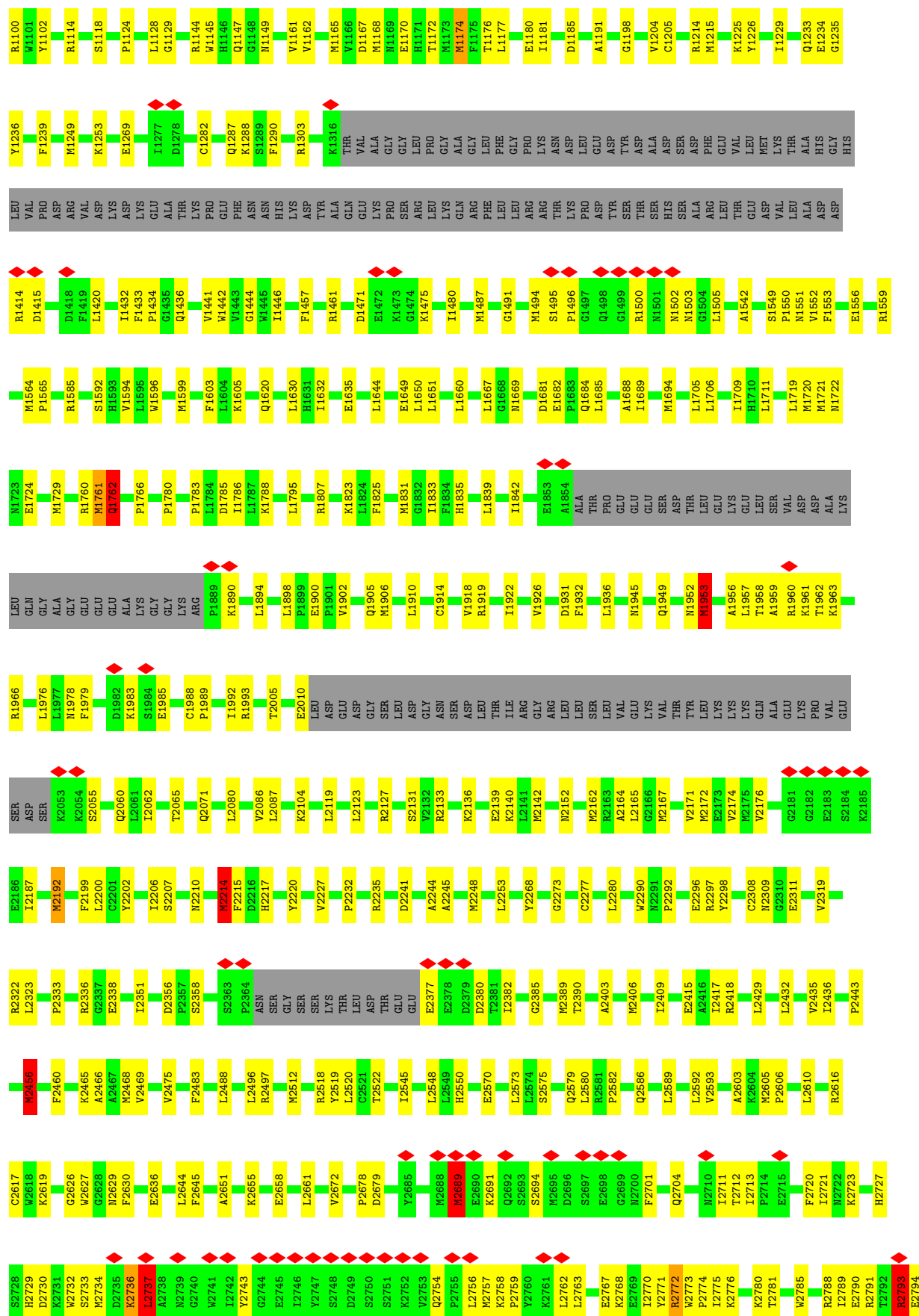
Mol	Chain	Residues	Atoms		AltConf
6	A	1	Total	Ca	0
			1	1	
6	I	4	Total	Ca	0
			4	4	
6	B	1	Total	Ca	0
			1	1	
6	C	1	Total	Ca	0
			1	1	
6	D	1	Total	Ca	0
			1	1	
6	J	4	Total	Ca	0
			4	4	
6	L	4	Total	Ca	0
			4	4	
6	K	4	Total	Ca	0
			4	4	

3 Residue-property plots

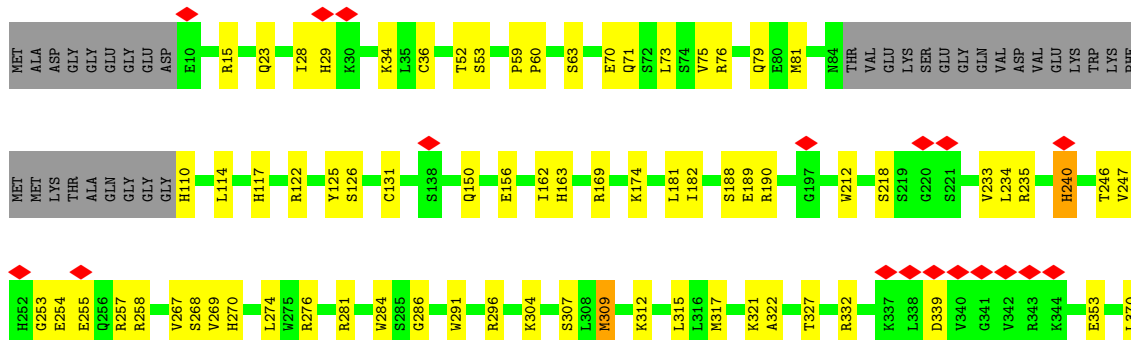
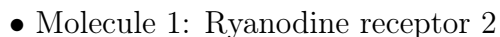
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

• Molecule 1: Ryanodine receptor 2

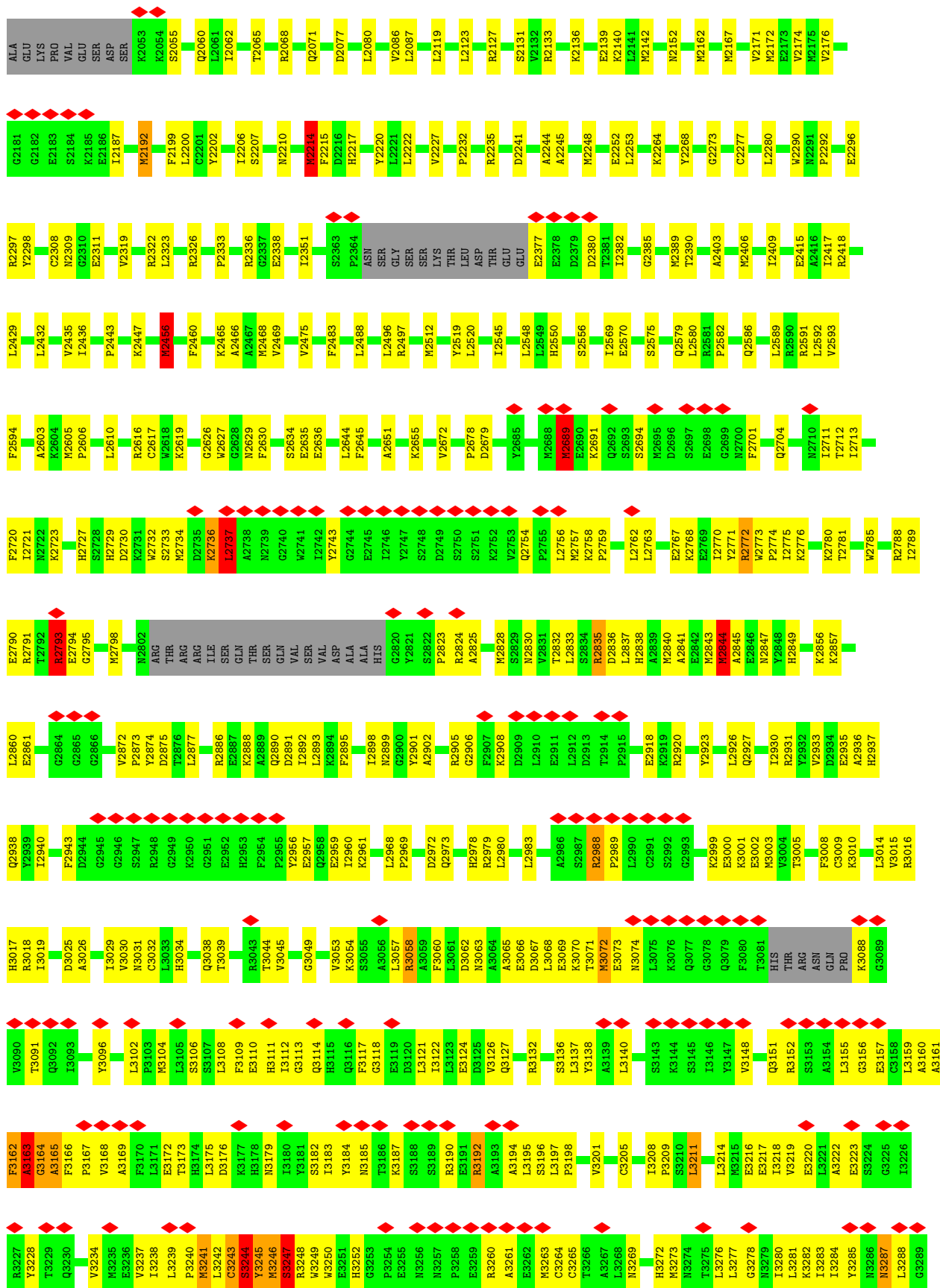




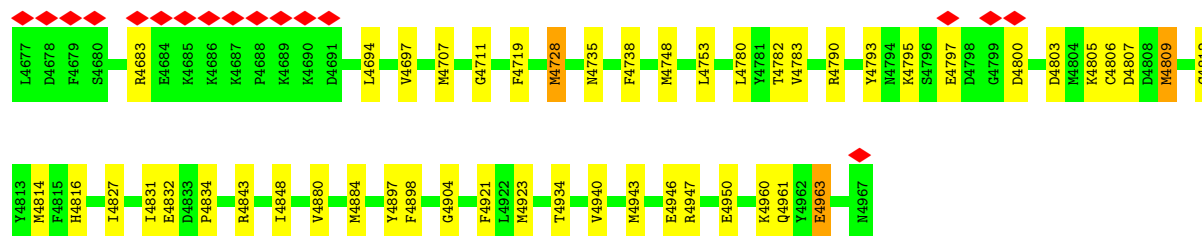




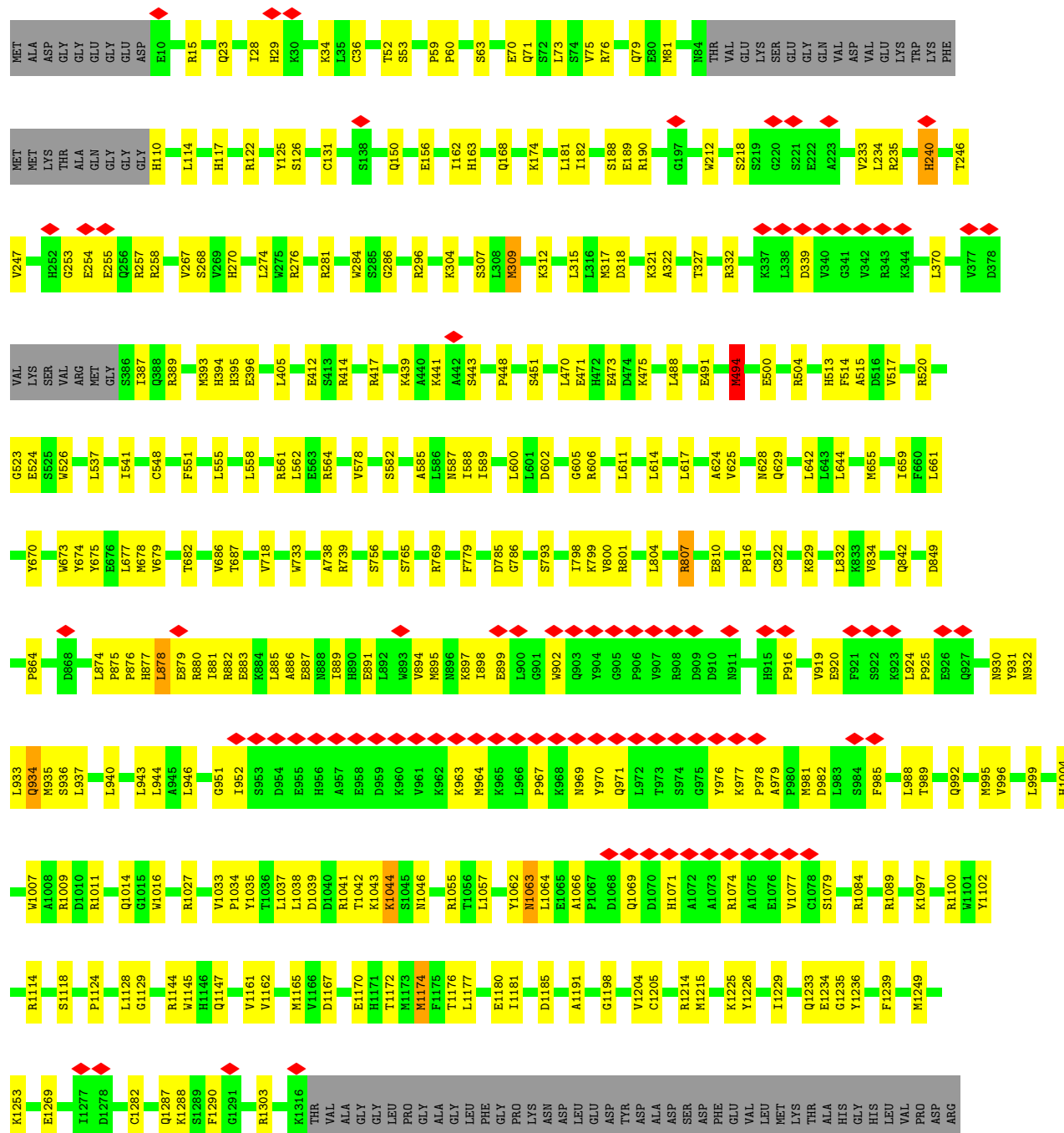




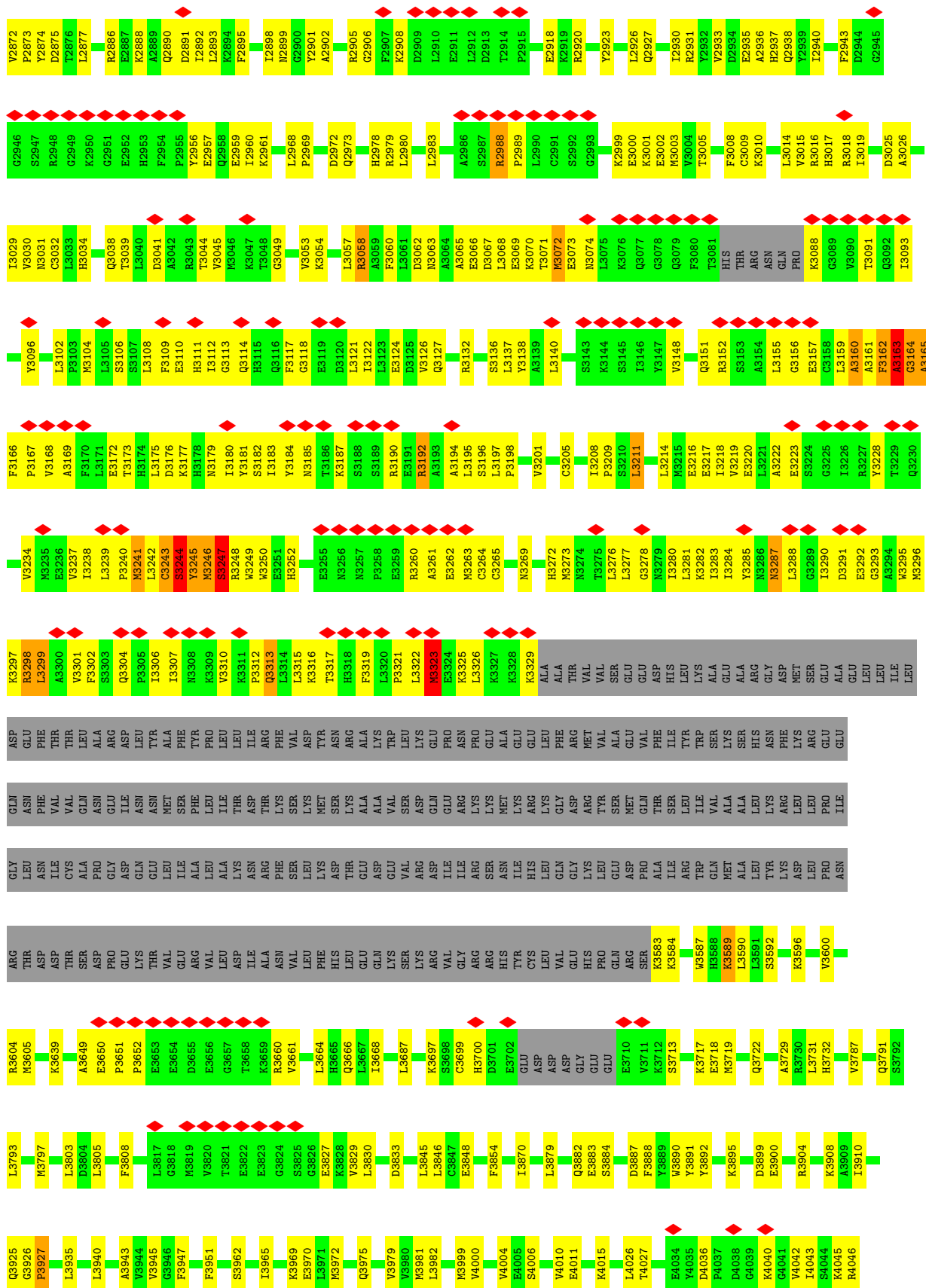




• Molecule 1: Ryanodine receptor 2









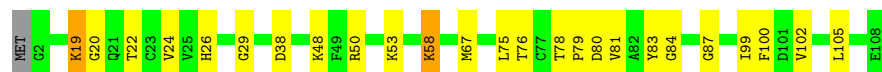
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M3241	L3242	C3243	S3244	Y3245	K3246	S3247	R3248	W3249	W3250	E3251	H3252	G3253	P3254	E3255	N3256	M3257	P3258	E3259	R3260	A3261	E3262	M3263	C3264	C3265	T3266	A3267	L3268	N3269	H3272	M3273	S3274	T3275	L3276	G3277	M3278	E3279	I3280	L3281	K3282	I3283	I3284	Y3285	N3286	N3287	L3288	I3290	D3291	E3292	G3293	A3294	W3295	M3296	K3297	R3298	L3299	A3300	V3301
E3172	T3173	H3174	L3175	D3176	K3177	H3178	N3179	S3182	T3183	Y3184	N3185	T3186	K3187	S3188	S3189	R3190	E3191	R3192	A3193	A3194	L3195	S3196	L3197	V3201	C3205	I3208	P3209	S3210	L3211	L3214	M3215	E3216	E3217	I3218	V3219	E3220	L3221	A3222	E3223	S3224	G3225	I3226	R3227	V3228	T3229	Q3230	V3234	M3235	E3236	V3237	R3298	L3299	A3300	V3301			
N3031	C3032	L3033	H3034	Q3038	T3039	L3040	D3041	T3044	V3045	G3049	V3053	K3054	S3055	A3056	L3057	R3058	A3059	F3060	L3061	D3062	N3063	A3064	A3065	E3066	D3067	L3068	E3069	K3070	T3071	M3072	E3073	N3074	L3075	K3076	Q3077	G3078	Q3079	F3080	T3081	HIS	THR	ARG	ASN	PRO	K3088	G3089	R3090	T3091	Q3092	Q3093	Y3096	L3102					
P3103	M3104	L3105	S3106	S3107	L3108	F3109	E3110	H3111	L3112	G3113	Q3114	F3117	G3118	L3121	L3122	L3123	E3124	D3125	V3126	Q3127	R3132	S3136	L3137	Y3138	A3139	L3140	S3143	K3144	S3145	L3146	Y3147	V3148	Q3151	R3152	S3153	A3154	L3155	G3156	E3157	C3158	L3159	A3160	A3161	F3162	A3163	A3164	A3165	F3166	P3167	A3168	F3170	L3171					
E3172	T3173	H3174	L3175	D3176	K3177	H3178	N3179	S3182	T3183	Y3184	N3185	T3186	K3187	S3188	S3189	R3190	E3191	R3192	A3193	A3194	L3195	S3196	L3197	V3201	C3205	I3208	P3209	S3210	L3211	L3214	M3215	E3216	E3217	I3218	V3219	E3220	L3221	A3222	E3223	S3224	G3225	I3226	R3227	V3228	T3229	Q3230	V3234	M3235	E3236	V3237	R3298	L3299	A3300	V3301			
M3241	L3242	C3243	S3244	Y3245	K3246	S3247	R3248	W3249	W3250	E3251	H3252	G3253	P3254	E3255	N3256	M3257	P3258	E3259	R3260	A3261	E3262	M3263	C3264	C3265	T3266	A3267	L3268	N3269	H3272	M3273	S3274	T3275	L3276	G3277	M3278	E3279	I3280	L3281	K3282	I3283	I3284	Y3285	N3286	N3287	L3288	I3290	D3291	E3292	G3293	A3294	W3295	M3296	K3297	R3298	L3299	A3300	V3301
F3302	F3303	Q3304	Q3305	Q3306	Q3307	Q3308	Q3309	Q3310	Q3311	Q3312	Q3313	L3314	Q3316	Q3317	Q3318	Q3319	Q3320	Q3321	Q3322	Q3323	Q3324	Q3325	Q3326	Q3327	Q3328	Q3329	ALA	ALA	THR	VAL	VAL	SER	GLU	GLU	ASP	HIS	LYS	LEU	LEU	ASP	THR	GLU	GLU	E2186	E2187												
M3241	L3242	C3243	S3244	Y3245	K3246	S3247	R3248	W3249	W3250	E3251	H3252	G3253	P3254	E3255	N3256	M3257	P3258	E3259	R3260	A3261	E3262	M3263	C3264	C3265	T3266	A3267	L3268	N3269	H3272	M3273	S3274	T3275	L3276	G3277	M3278	E3279	I3280	L3281	K3282	I3283	I3284	Y3285	N3286	N3287	L3288	I3290	D3291	E3292	G3293	A3294	W3295	M3296	K3297	R3298	L3299	A3300	V3301
F3302	F3303	Q3304	Q3305	Q3306	Q3307	Q3308	Q3309	Q3310	Q3311	Q3312	Q3313	L3314	Q3316	Q3317	Q3318	Q3319	Q3320	Q3321	Q3322	Q3323	Q3324	Q3325	Q3326	Q3327	Q3328	Q3329	ALA	ALA	THR	VAL	VAL	SER	GLU	GLU	ASP	HIS	LYS	LEU	LEU	ASP	THR	GLU	GLU	E2186	E2187												
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F3302	F3303	Q3304	Q3305	Q3306	Q3307	Q3308	Q3309	Q3310	Q3311	Q3312	Q3313	L3314	Q3316	Q3317	Q3318	Q3319	Q3320	Q3321	Q3322	Q3323	Q3324	Q3325	Q3326	Q3327	Q3328	Q3329	ALA	ALA	THR	VAL	VAL	SER	GLU	GLU	ASP	HIS	LYS	LEU	LEU	ASP	THR	GLU	GLU	E2186	E2187												
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F3302	F3303	Q3304	Q3305	Q3306	Q3307	Q3308	Q3309	Q3310	Q3311	Q3312	Q3313	L3314	Q3316	Q3317	Q3318	Q3319	Q3320	Q3321	Q3322	Q3323	Q3324	Q3325	Q3326	Q3327	Q3328	Q3329	ALA	ALA	THR	VAL	VAL	SER	GLU	GLU	ASP	HIS	LYS	LEU	LEU	ASP	THR	GLU	GLU	E2186	E2187												
M3241	L3242	C3243	S3244	Y3245	K3246	S3247	R3248	W3249	W3250	E3251	H3252	G3253	P3254	E3255	N3256	M3257	P3258	E3259	R3260	A3261	E3262	M3263	C3264	C3265	T3266	A3267	L3268	N3269	H3272	M3273	S3274	T3275	L3276	G3277	M3278	E3279	I3280	L3281	K3282	I3283	I3284	Y3285	N3286	N3287	L3288	I3290	D3291	E3292	G3293	A3294	W3295	M3296	K3297	R3298	L3299	A3300	V3301
F3302	F3303	Q3304	Q3305	Q3306	Q3307	Q3308	Q3309	Q3310	Q3311	Q3312	Q3313	L3314	Q3316	Q3317	Q3318	Q3319	Q3320	Q3321	Q3322	Q3323	Q3324	Q3325	Q3326	Q3327	Q3328	Q3329	ALA	ALA	THR	VAL	VAL	SER	GLU	GLU	ASP	HIS	LYS	LEU	LEU	ASP	THR	GLU	GLU	E2186	E2187												
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F3302	F3303	Q3304	Q3305	Q3306	Q3307	Q3308	Q3309	Q3310	Q3311	Q3312	Q3313	L3314	Q3316	Q3317	Q3318	Q3319	Q3320	Q3321	Q3322	Q3323	Q3324	Q3325	Q3326	Q3327	Q3328	Q3329	ALA	ALA	THR	VAL	VAL	SER	GLU	GLU	ASP	HIS	LYS	LEU	LEU	ASP	THR	GLU	GLU	E2186	E2187												
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F3302	F3303	Q3304	Q3305	Q3306	Q3307	Q3308	Q3309	Q3310	Q3311	Q3312	Q3313	L3314	Q3316	Q3317	Q3318	Q3319	Q3320	Q3321	Q3322	Q3323	Q3324	Q3325	Q3326	Q3327	Q3328	Q3329	ALA	ALA	THR	VAL	VAL	SER	GLU	GLU	ASP	HIS	LYS	LEU	LEU	ASP	THR	GLU	GLU	E2186	E2187												
M3241	L3242	C3243	S3244	Y3245	K3246	S3247	R3248	W3249	W3250	E3251	H3252	G3253	P3254	E3255	N3256	M3257	P3258	E3259	R3260	A3261	E3262	M3263	C3264	C3265	T3266	A3267	L3268	N3269	H3272	M3273	S3274	T3275	L3276	G3277	M3278	E3279	I3280	L3281	K3282	I3283	I3284	Y3285	N3286	N3287	L3288	I3290	D3291	E3292	G3293	A3294	W3295	M3296	K3297	R3298	L3299	A3300	V3301
F3302	F3303	Q3304	Q3305	Q3306	Q3307	Q3308	Q3309	Q3310	Q3311	Q3312	Q3313	L3314	Q3316	Q3317	Q3318	Q3319	Q3320	Q3321	Q3322	Q3323	Q3324	Q3325	Q3326	Q3327	Q3328	Q3329	ALA	ALA	THR	VAL	VAL	SER	GLU	GLU	ASP	HIS	LYS	LEU	LEU	ASP	THR	GLU	GLU	E2186	E2187												
M3241	L3242	C3243	S3244	Y3245	K3246	S3247	R3248	W3249	W3250	E3251	H3252	G3253	P3254	E3255	N3256	M3257	P3258	E3259	R3260	A3261	E3262	M3263	C3264	C3265	T3266	A3267	L3268	N3269	H3272	M3273	S3274	T3275	L3276	G3277	M3278	E3279	I3280	L3281	K3282	I3283	I3284	Y3285	N3286	N3287	L3288	I3290	D3291	E3292	G3293	A3294	W3295	M3296	K3297	R3298	L3299	A3300	V3301
F3302	F3303	Q3304	Q3305	Q3306	Q3307	Q3308	Q3309	Q3310	Q3311	Q3312	Q3313	L3314	Q3316	Q3317	Q3318	Q3319	Q3320	Q3321	Q3322	Q3323	Q3324	Q3325	Q3326	Q3327	Q3328	Q3329	ALA	ALA	THR	VAL	VAL	SER	GLU	GLU	ASP	HIS	LYS	LEU	LEU	ASP	THR	GLU	GLU	E2186	E2187												
M3241	L3242	C3243	S3244	Y3245	K3246	S3247	R3248	W3249	W3250	E3251	H3252	G3253	P3254	E3255	N3256	M3257	P3258	E3259	R3260	A3261	E3262	M3263	C3264	C3265	T3266	A3267	L3268	N3269	H3272	M3273	S3274	T3275	L3276	G3277	M3278	E3279	I3280	L3281	K3282	I3283	I3284	Y3285	N3286	N3287	L3288	I3290	D3291	E3292	G3293	A3294	W3295	M3296	K3297	R3298	L3299	A3300	V3301
F3302	F3303	Q3304	Q3305	Q3306	Q3307	Q3308	Q3309	Q3310	Q3311	Q3312	Q3313	L3314	Q3316	Q3317	Q3318	Q3319	Q3320	Q3321	Q3322	Q3323	Q3324	Q3325	Q3326	Q3327	Q3328	Q3329	ALA	ALA	THR	VAL	VAL	SER	GLU	GLU	ASP	HIS	LYS	LEU	LEU	ASP	THR	GLU	GLU	E2186	E2187												
M3241	L3242	C3243	S3244	Y3245	K3246	S3247	R3248	W3249	W3250	E3251	H3252	G3253	P3254	E3255	N3256	M3257	P3258	E3259	R3260	A3261	E3262																																				

LEU	ALA	GLN	ASP	SER	GLU	PRO	ALA	GLN	ASP	GLU	PRO	GLU	ASP	GLU	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLN</
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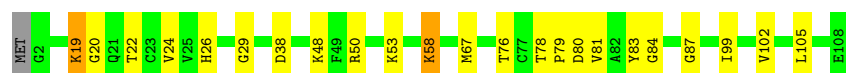
- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain E: 76% 21% ..



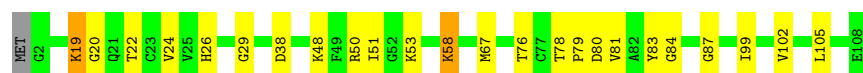
- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain F: 78% 19% ..



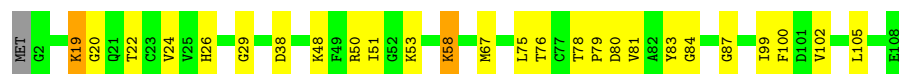
- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain G: 77% 20% ..



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

Chain H: 75% 22% ..



- Molecule 3: Calmodulin-1

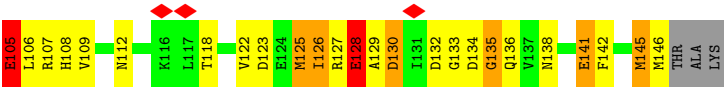
Chain I: 59% 31% 5% ..



- Molecule 3: Calmodulin-1

Chain J: 56% 34% 5% ..

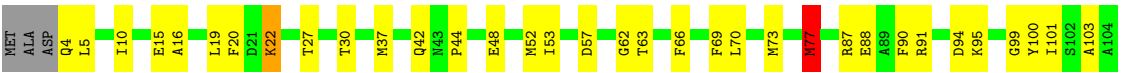




• Molecule 3: Calmodulin-1



• Molecule 3: Calmodulin-1



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	77625	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	58	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	1200	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.637	Depositor
Minimum map value	-0.007	Depositor
Average map value	0.014	Depositor
Map value standard deviation	0.037	Depositor
Recommended contour level	0.14	Depositor
Map size (Å)	424.96, 424.96, 424.96	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.83, 0.83, 0.83	Depositor

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.23	9/34603 (0.0%)	0.50	28/46734 (0.1%)
1	B	0.23	9/34603 (0.0%)	0.50	27/46734 (0.1%)
1	C	0.23	9/34603 (0.0%)	0.50	28/46734 (0.1%)
1	D	0.23	9/34603 (0.0%)	0.50	28/46734 (0.1%)
2	E	0.17	0/834	0.46	0/1123
2	F	0.17	0/834	0.46	0/1123
2	G	0.17	0/834	0.46	0/1123
2	H	0.17	0/834	0.46	0/1123
3	I	0.35	0/1143	0.77	5/1534 (0.3%)
3	J	0.36	0/1143	0.76	5/1534 (0.3%)
3	K	0.36	0/1143	0.76	5/1534 (0.3%)
3	L	0.35	0/1143	0.77	5/1534 (0.3%)
All	All	0.24	36/146320 (0.0%)	0.51	131/197564 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	8
1	B	0	8
1	C	0	8
1	D	0	8
All	All	0	32

All (36) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	3244	SER	CA-C	11.83	1.68	1.52
1	A	3244	SER	CA-C	11.79	1.68	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	3244	SER	CA-C	11.78	1.68	1.52
1	B	3244	SER	CA-C	11.78	1.68	1.52
1	B	3164	GLY	CA-C	10.25	1.66	1.51
1	C	3164	GLY	CA-C	10.24	1.66	1.51
1	A	3164	GLY	CA-C	10.20	1.66	1.51
1	D	3164	GLY	CA-C	10.19	1.66	1.51
1	A	3164	GLY	N-CA	10.03	1.59	1.45
1	B	3164	GLY	N-CA	10.02	1.59	1.45
1	D	3164	GLY	N-CA	10.01	1.59	1.45
1	C	3164	GLY	N-CA	10.01	1.59	1.45
1	D	3164	GLY	C-N	9.81	1.47	1.33
1	C	3164	GLY	C-N	9.78	1.47	1.33
1	A	3164	GLY	C-N	9.78	1.47	1.33
1	B	3164	GLY	C-N	9.78	1.47	1.33
1	C	3245	TYR	N-CA	8.75	1.57	1.46
1	A	3245	TYR	N-CA	8.69	1.57	1.46
1	B	3245	TYR	N-CA	8.67	1.57	1.46
1	D	3245	TYR	N-CA	8.65	1.57	1.46
1	B	3163	ALA	CA-C	6.39	1.60	1.52
1	A	3163	ALA	CA-C	6.36	1.60	1.52
1	D	3163	ALA	CA-C	6.35	1.60	1.52
1	D	3243	CYS	C-N	6.34	1.41	1.33
1	A	3243	CYS	C-N	6.34	1.41	1.33
1	C	3163	ALA	CA-C	6.34	1.60	1.52
1	C	3243	CYS	C-N	6.32	1.41	1.33
1	B	3243	CYS	C-N	6.31	1.41	1.33
1	A	3244	SER	N-CA	5.38	1.52	1.46
1	B	3244	SER	N-CA	5.36	1.52	1.46
1	C	3244	SER	N-CA	5.34	1.52	1.46
1	D	3244	SER	N-CA	5.30	1.52	1.46
1	B	3165	ALA	N-CA	5.12	1.52	1.46
1	C	3165	ALA	N-CA	5.12	1.52	1.46
1	A	3165	ALA	N-CA	5.11	1.52	1.46
1	D	3165	ALA	N-CA	5.11	1.52	1.46

All (131) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	3247	SER	CA-C-N	-14.93	100.28	120.28
1	D	3247	SER	C-N-CA	-14.93	100.28	120.28
1	A	3247	SER	CA-C-N	-14.91	100.30	120.28
1	A	3247	SER	C-N-CA	-14.91	100.30	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	3247	SER	CA-C-N	-14.90	100.31	120.28
1	B	3247	SER	C-N-CA	-14.90	100.31	120.28
1	C	3247	SER	CA-C-N	-14.89	100.33	120.28
1	C	3247	SER	C-N-CA	-14.89	100.33	120.28
1	B	3244	SER	O-C-N	-11.89	108.10	122.25
1	A	3244	SER	O-C-N	-11.88	108.12	122.25
1	C	3244	SER	O-C-N	-11.87	108.12	122.25
1	D	3244	SER	O-C-N	-11.85	108.15	122.25
1	C	2844	MET	CB-CG-SD	10.52	144.26	112.70
1	A	2844	MET	CB-CG-SD	10.51	144.24	112.70
1	B	2844	MET	CB-CG-SD	10.51	144.24	112.70
1	D	2844	MET	CB-CG-SD	10.51	144.23	112.70
3	L	77	MET	CB-CG-SD	8.82	139.17	112.70
3	I	77	MET	CB-CG-SD	8.82	139.16	112.70
3	K	77	MET	CB-CG-SD	8.82	139.15	112.70
3	J	77	MET	CB-CG-SD	8.81	139.13	112.70
1	A	2844	MET	CA-CB-CG	8.67	131.44	114.10
1	D	2844	MET	CA-CB-CG	8.66	131.43	114.10
1	B	2844	MET	CA-CB-CG	8.66	131.41	114.10
1	C	2844	MET	CA-CB-CG	8.65	131.41	114.10
1	D	3246	MET	CA-C-N	-8.30	110.05	122.83
1	D	3246	MET	C-N-CA	-8.30	110.05	122.83
1	C	3246	MET	CA-C-N	-8.28	110.08	122.83
1	C	3246	MET	C-N-CA	-8.28	110.08	122.83
1	B	3246	MET	CA-C-N	-8.27	110.09	122.83
1	B	3246	MET	C-N-CA	-8.27	110.09	122.83
1	A	3246	MET	CA-C-N	-8.27	110.09	122.83
1	A	3246	MET	C-N-CA	-8.27	110.09	122.83
1	C	2689	MET	CA-CB-CG	8.05	130.20	114.10
1	B	2689	MET	CA-CB-CG	8.05	130.19	114.10
1	D	2689	MET	CA-CB-CG	8.05	130.19	114.10
1	A	2689	MET	CA-CB-CG	8.04	130.19	114.10
1	D	2737	LEU	CA-CB-CG	7.50	142.56	116.30
1	C	2737	LEU	CA-CB-CG	7.50	142.54	116.30
1	A	2737	LEU	CA-CB-CG	7.49	142.53	116.30
1	B	2737	LEU	CA-CB-CG	7.49	142.51	116.30
1	A	2689	MET	CB-CG-SD	7.33	134.70	112.70
1	D	2689	MET	CB-CG-SD	7.33	134.69	112.70
1	C	2689	MET	CB-CG-SD	7.33	134.69	112.70
1	B	2689	MET	CB-CG-SD	7.32	134.66	112.70
1	D	1953	MET	CB-CG-SD	7.28	134.53	112.70
1	C	1953	MET	CB-CG-SD	7.27	134.50	112.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1953	MET	CB-CG-SD	7.26	134.49	112.70
1	B	1953	MET	CB-CG-SD	7.26	134.47	112.70
1	C	3244	SER	N-CA-C	7.22	122.20	112.88
1	B	3244	SER	N-CA-C	7.22	122.19	112.88
1	A	3244	SER	N-CA-C	7.20	122.17	112.88
1	D	3244	SER	N-CA-C	7.20	122.17	112.88
1	D	934	GLN	CA-CB-CG	7.08	128.25	114.10
1	A	934	GLN	CA-CB-CG	7.07	128.24	114.10
1	C	934	GLN	CA-CB-CG	7.07	128.24	114.10
1	B	934	GLN	CA-CB-CG	7.06	128.22	114.10
1	C	934	GLN	N-CA-CB	7.05	121.20	110.28
1	A	934	GLN	N-CA-CB	7.03	121.18	110.28
1	B	934	GLN	N-CA-CB	7.03	121.18	110.28
1	D	934	GLN	N-CA-CB	7.03	121.17	110.28
1	A	3323	MET	CB-CG-SD	6.60	132.50	112.70
1	B	3323	MET	CB-CG-SD	6.60	132.50	112.70
1	C	3323	MET	CB-CG-SD	6.60	132.50	112.70
1	D	3323	MET	CB-CG-SD	6.59	132.48	112.70
1	C	2835	ARG	CB-CG-CD	6.58	126.44	111.30
1	A	2835	ARG	CB-CG-CD	6.58	126.43	111.30
1	D	2835	ARG	CB-CG-CD	6.58	126.42	111.30
1	B	2835	ARG	CB-CG-CD	6.57	126.42	111.30
1	C	3164	GLY	N-CA-C	6.14	127.72	113.18
1	D	3164	GLY	N-CA-C	6.13	127.72	113.18
1	A	3164	GLY	N-CA-C	6.13	127.71	113.18
1	B	3164	GLY	N-CA-C	6.13	127.71	113.18
1	A	494	MET	CB-CG-SD	6.09	130.97	112.70
1	B	494	MET	CB-CG-SD	6.09	130.96	112.70
1	C	494	MET	CB-CG-SD	6.08	130.95	112.70
1	D	494	MET	CB-CG-SD	6.08	130.94	112.70
1	D	3245	TYR	CA-CB-CG	6.07	124.82	113.90
1	C	3245	TYR	CA-CB-CG	6.06	124.81	113.90
1	B	3245	TYR	CA-CB-CG	6.06	124.80	113.90
1	A	3245	TYR	CA-CB-CG	6.05	124.79	113.90
3	I	128	GLU	N-CA-C	-5.85	106.68	113.88
3	J	128	GLU	N-CA-C	-5.85	106.69	113.88
3	K	128	GLU	N-CA-C	-5.84	106.70	113.88
3	L	128	GLU	N-CA-C	-5.83	106.70	113.88
1	B	2214	MET	CB-CG-SD	5.74	129.91	112.70
1	A	2214	MET	CB-CG-SD	5.73	129.88	112.70
1	D	2214	MET	CB-CG-SD	5.72	129.87	112.70
1	C	2214	MET	CB-CG-SD	5.72	129.86	112.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	K	141	GLU	N-CA-C	-5.72	105.80	112.89
3	L	141	GLU	N-CA-C	-5.71	105.81	112.89
3	I	141	GLU	N-CA-C	-5.68	105.85	112.89
3	J	141	GLU	N-CA-C	-5.67	105.86	112.89
1	C	2456	MET	CB-CG-SD	5.58	129.43	112.70
1	B	3192	ARG	CG-CD-NE	5.57	124.26	112.00
1	A	2456	MET	CB-CG-SD	5.57	129.40	112.70
1	B	2456	MET	CB-CG-SD	5.57	129.40	112.70
1	D	3192	ARG	CG-CD-NE	5.56	124.23	112.00
1	A	3192	ARG	CG-CD-NE	5.56	124.23	112.00
1	D	2456	MET	CB-CG-SD	5.55	129.37	112.70
1	C	3192	ARG	CG-CD-NE	5.54	124.19	112.00
1	D	3160	ALA	CA-C-N	5.51	129.09	120.82
1	D	3160	ALA	C-N-CA	5.51	129.09	120.82
1	A	3160	ALA	CA-C-N	5.50	129.08	120.82
1	A	3160	ALA	C-N-CA	5.50	129.08	120.82
1	C	3160	ALA	CA-C-N	5.49	129.06	120.82
1	C	3160	ALA	C-N-CA	5.49	129.06	120.82
3	J	105	GLU	N-CA-C	-5.45	106.63	113.28
3	I	105	GLU	N-CA-C	-5.45	106.64	113.28
3	L	105	GLU	N-CA-C	-5.44	106.64	113.28
3	K	105	GLU	N-CA-C	-5.41	106.68	113.28
1	D	2793	ARG	CA-CB-CG	5.38	124.86	114.10
1	C	2793	ARG	CA-CB-CG	5.38	124.86	114.10
1	B	2793	ARG	CA-CB-CG	5.37	124.85	114.10
1	A	2793	ARG	CA-CB-CG	5.37	124.84	114.10
1	D	1762	GLN	CA-CB-CG	5.22	124.55	114.10
1	A	1762	GLN	CA-CB-CG	5.22	124.53	114.10
1	C	1762	GLN	CA-CB-CG	5.21	124.53	114.10
1	B	1762	GLN	CA-CB-CG	5.21	124.51	114.10
1	B	3196	SER	CA-C-N	5.17	128.80	121.61
1	B	3196	SER	C-N-CA	5.17	128.80	121.61
1	B	269	VAL	N-CA-C	-5.16	108.48	113.53
1	A	3196	SER	CA-C-N	5.13	128.74	121.61
1	A	3196	SER	C-N-CA	5.13	128.74	121.61
1	D	3196	SER	CA-C-N	5.11	128.72	121.61
1	D	3196	SER	C-N-CA	5.11	128.72	121.61
1	C	3196	SER	CA-C-N	5.10	128.71	121.61
1	C	3196	SER	C-N-CA	5.10	128.71	121.61
3	I	135	GLY	N-CA-C	-5.08	108.61	115.36
3	K	135	GLY	N-CA-C	-5.08	108.61	115.36
3	J	135	GLY	N-CA-C	-5.07	108.62	115.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	L	135	GLY	N-CA-C	-5.05	108.64	115.36

There are no chirality outliers.

All (32) planarity outliers are listed below:

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

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	33858	0	33562	983	0
1	B	33858	0	33562	986	0
1	C	33858	0	33562	969	0
1	D	33858	0	33562	971	0
2	E	818	0	821	16	0
2	F	818	0	821	16	0
2	G	818	0	821	18	0
2	H	818	0	821	18	0
3	I	1131	0	1059	44	0
3	J	1131	0	1059	54	0
3	K	1131	0	1059	50	0
3	L	1131	0	1059	49	0
4	A	1	0	0	0	0
4	B	1	0	0	0	0
4	C	1	0	0	0	0
4	D	1	0	0	0	0
5	A	62	0	24	0	0
5	B	62	0	24	0	0
5	C	62	0	24	0	0
5	D	62	0	24	0	0
6	A	1	0	0	0	0
6	B	1	0	0	0	0
6	C	1	0	0	0	0
6	D	1	0	0	0	0
6	I	4	0	0	2	0
6	J	4	0	0	2	0
6	K	4	0	0	2	0
6	L	4	0	0	2	0
All	All	143500	0	141864	4025	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 14.

All (4025) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3165:ALA:N	1:C:3244:SER:O	1.63	1.32
1:B:3165:ALA:N	1:B:3244:SER:O	1.63	1.31
1:A:3165:ALA:H	1:A:3244:SER:C	1.39	1.29
1:D:3165:ALA:N	1:D:3244:SER:O	1.63	1.29
1:B:3165:ALA:H	1:B:3244:SER:C	1.39	1.28
1:D:3165:ALA:H	1:D:3244:SER:C	1.39	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3165:ALA:H	1:C:3244:SER:C	1.40	1.26
1:A:3165:ALA:N	1:A:3244:SER:O	1.63	1.26
1:A:3164:GLY:HA2	1:A:3246:MET:N	1.54	1.21
1:B:3164:GLY:HA2	1:B:3246:MET:N	1.54	1.20
1:C:3164:GLY:HA2	1:C:3246:MET:N	1.54	1.20
1:D:3164:GLY:HA2	1:D:3246:MET:N	1.54	1.20
1:A:3164:GLY:N	1:A:3245:TYR:N	1.95	1.15
1:D:3164:GLY:N	1:D:3245:TYR:N	1.95	1.15
1:C:3164:GLY:N	1:C:3245:TYR:N	1.95	1.14
1:B:3164:GLY:N	1:B:3245:TYR:N	1.95	1.13
1:A:3163:ALA:HA	1:A:3245:TYR:HB3	1.16	1.10
1:C:3163:ALA:C	1:C:3245:TYR:H	1.59	1.10
1:B:3163:ALA:C	1:B:3245:TYR:H	1.59	1.08
1:D:3163:ALA:C	1:D:3245:TYR:H	1.59	1.08
1:A:3163:ALA:C	1:A:3245:TYR:H	1.59	1.08
1:B:3163:ALA:HA	1:B:3245:TYR:HB3	1.16	1.08
1:C:3165:ALA:N	1:C:3244:SER:C	2.06	1.08
1:D:3163:ALA:HA	1:D:3245:TYR:HB3	1.16	1.07
1:D:3165:ALA:N	1:D:3244:SER:C	2.06	1.07
1:C:3163:ALA:HA	1:C:3245:TYR:HB3	1.16	1.06
1:B:3165:ALA:N	1:B:3244:SER:C	2.06	1.03
1:A:3164:GLY:N	1:A:3245:TYR:H	1.54	1.03
1:A:3165:ALA:N	1:A:3244:SER:C	2.06	1.02
1:D:3205:CYS:HB2	1:D:3208:ILE:HD13	1.42	1.01
1:D:3164:GLY:N	1:D:3245:TYR:H	1.54	1.01
1:C:3205:CYS:HB2	1:C:3208:ILE:HD13	1.42	1.01
1:D:1564:MET:HE3	1:D:1565:PRO:HD2	1.45	0.99
1:C:3164:GLY:N	1:C:3245:TYR:H	1.54	0.99
1:A:3205:CYS:HB2	1:A:3208:ILE:HD13	1.42	0.99
1:A:1564:MET:HE3	1:A:1565:PRO:HD2	1.45	0.98
1:B:3205:CYS:HB2	1:B:3208:ILE:HD13	1.42	0.97
1:B:3164:GLY:N	1:B:3245:TYR:H	1.54	0.97
1:C:1564:MET:HE3	1:C:1565:PRO:HD2	1.45	0.97
1:B:1564:MET:HE3	1:B:1565:PRO:HD2	1.45	0.96
1:D:895:MET:HE3	1:D:978:PRO:HD2	1.49	0.95
1:C:3164:GLY:H	1:C:3244:SER:N	1.66	0.94
1:A:3164:GLY:H	1:A:3244:SER:N	1.66	0.93
1:C:895:MET:HE3	1:C:978:PRO:HD2	1.49	0.93
1:D:3164:GLY:H	1:D:3244:SER:N	1.66	0.93
1:B:3164:GLY:H	1:B:3244:SER:N	1.66	0.93
1:B:895:MET:HE3	1:B:978:PRO:HD2	1.49	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3166:PHE:N	1:B:3244:SER:O	2.02	0.92
1:D:3164:GLY:C	1:D:3244:SER:HA	1.95	0.92
1:D:3166:PHE:N	1:D:3244:SER:O	2.02	0.92
1:C:3163:ALA:CA	1:C:3245:TYR:H	1.83	0.92
1:C:3166:PHE:N	1:C:3244:SER:O	2.02	0.92
1:B:3163:ALA:CA	1:B:3245:TYR:H	1.83	0.91
1:C:3164:GLY:C	1:C:3244:SER:HA	1.95	0.91
1:A:3163:ALA:CA	1:A:3245:TYR:H	1.83	0.91
1:A:3166:PHE:N	1:A:3244:SER:O	2.02	0.91
1:D:3163:ALA:CA	1:D:3245:TYR:H	1.83	0.91
1:B:3164:GLY:C	1:B:3244:SER:HA	1.95	0.91
1:A:895:MET:HE3	1:A:978:PRO:HD2	1.49	0.90
1:A:3164:GLY:C	1:A:3244:SER:HA	1.95	0.90
1:B:3159:LEU:HG	1:B:3241:MET:HB2	1.54	0.90
1:D:3159:LEU:HG	1:D:3241:MET:HB2	1.54	0.90
1:D:75:VAL:HG12	1:D:79:GLN:HE22	1.37	0.90
1:C:3159:LEU:HG	1:C:3241:MET:HB2	1.54	0.89
1:C:75:VAL:HG12	1:C:79:GLN:HE22	1.37	0.89
1:C:3163:ALA:HA	1:C:3245:TYR:CB	2.03	0.89
1:D:3163:ALA:HA	1:D:3245:TYR:CB	2.03	0.89
1:B:75:VAL:HG12	1:B:79:GLN:HE22	1.37	0.89
1:A:3159:LEU:HG	1:A:3241:MET:HB2	1.54	0.88
1:D:3108:LEU:HD12	1:D:3111:HIS:HE1	1.37	0.88
1:C:3108:LEU:HD12	1:C:3111:HIS:HE1	1.37	0.87
1:A:3169:ALA:HA	1:A:3245:TYR:HE1	1.39	0.87
1:D:3169:ALA:HA	1:D:3245:TYR:HE1	1.39	0.87
1:A:75:VAL:HG12	1:A:79:GLN:HE22	1.37	0.87
1:A:3163:ALA:CA	1:A:3245:TYR:HB3	2.05	0.86
1:D:3163:ALA:CA	1:D:3245:TYR:HB3	2.05	0.86
1:A:3108:LEU:HD12	1:A:3111:HIS:HE1	1.37	0.86
1:D:3211:LEU:HD21	1:D:3246:MET:HE1	1.57	0.86
1:B:3108:LEU:HD12	1:B:3111:HIS:HE1	1.37	0.86
1:C:3163:ALA:CA	1:C:3245:TYR:HB3	2.05	0.86
1:B:3163:ALA:CA	1:B:3245:TYR:HB3	2.05	0.86
1:C:3169:ALA:HA	1:C:3245:TYR:HE1	1.39	0.86
1:B:3163:ALA:HA	1:B:3245:TYR:CB	2.03	0.85
1:B:3164:GLY:HA2	1:B:3245:TYR:C	2.01	0.85
1:A:3163:ALA:HA	1:A:3245:TYR:CB	2.03	0.85
1:A:3293:GLY:HA3	1:A:3296:MET:HG2	1.59	0.85
1:B:3169:ALA:HA	1:B:3245:TYR:HE1	1.39	0.85
1:D:3164:GLY:HA2	1:D:3245:TYR:C	2.01	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3211:LEU:HD21	1:C:3246:MET:HE1	1.57	0.84
1:A:3164:GLY:HA2	1:A:3245:TYR:C	2.01	0.84
1:B:3211:LEU:HD21	1:B:3246:MET:HE1	1.57	0.84
1:B:3293:GLY:HA3	1:B:3296:MET:HG2	1.59	0.84
1:C:1957:LEU:HD21	3:K:42:GLN:NE2	1.93	0.84
1:D:874:LEU:HD13	1:D:940:LEU:HD13	1.60	0.84
1:A:874:LEU:HD13	1:A:940:LEU:HD13	1.60	0.83
1:C:3164:GLY:HA2	1:C:3245:TYR:C	2.01	0.83
1:C:3298:ARG:NH2	3:K:133:GLY:O	2.11	0.83
1:D:3293:GLY:HA3	1:D:3296:MET:HG2	1.59	0.83
1:A:3211:LEU:HD21	1:A:3246:MET:HE1	1.57	0.82
1:C:3293:GLY:HA3	1:C:3296:MET:HG2	1.59	0.82
1:A:3298:ARG:NH2	3:I:133:GLY:O	2.12	0.82
1:B:874:LEU:HD13	1:B:940:LEU:HD13	1.60	0.82
1:A:3163:ALA:C	1:A:3245:TYR:N	2.33	0.82
1:A:3295:TRP:HA	1:A:3298:ARG:HG2	1.62	0.82
1:A:4271:VAL:HG12	1:B:4480:PHE:HZ	1.44	0.82
1:C:874:LEU:HD13	1:C:940:LEU:HD13	1.60	0.82
1:B:4271:VAL:HA	1:B:4274:MET:HG2	1.62	0.82
1:B:3163:ALA:C	1:B:3245:TYR:N	2.34	0.81
1:C:3295:TRP:HA	1:C:3298:ARG:HG2	1.62	0.81
1:C:4271:VAL:HA	1:C:4274:MET:HG2	1.61	0.81
1:D:4640:PHE:CD2	1:D:4641:PRO:HD3	2.15	0.81
1:A:4640:PHE:CD2	1:A:4641:PRO:HD3	2.15	0.81
1:A:2895:PHE:O	1:A:2899:ASN:ND2	2.14	0.81
1:D:4040:LYS:HD2	1:D:4042:VAL:H	1.45	0.81
1:A:4271:VAL:HA	1:A:4274:MET:HG2	1.61	0.81
1:A:4557:VAL:HG11	1:B:4790:ARG:HH22	1.46	0.80
1:C:2895:PHE:O	1:C:2899:ASN:ND2	2.14	0.80
1:C:4640:PHE:CD2	1:C:4641:PRO:HD3	2.15	0.80
1:D:2788:ARG:HD3	1:D:2908:LYS:HZ1	1.46	0.80
1:B:3295:TRP:HA	1:B:3298:ARG:HG2	1.62	0.80
1:C:4040:LYS:HD2	1:C:4042:VAL:H	1.46	0.80
1:D:3295:TRP:HA	1:D:3298:ARG:HG2	1.62	0.80
1:D:4271:VAL:HA	1:D:4274:MET:HG2	1.61	0.80
1:B:4640:PHE:CD2	1:B:4641:PRO:HD3	2.15	0.80
1:C:2798:MET:SD	1:D:1497:GLY:HA3	2.21	0.80
1:D:2895:PHE:O	1:D:2899:ASN:ND2	2.14	0.79
1:B:2895:PHE:O	1:B:2899:ASN:ND2	2.14	0.79
1:A:4040:LYS:HD2	1:A:4042:VAL:H	1.45	0.79
1:B:3165:ALA:HA	1:B:3248:ARG:N	1.99	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4040:LYS:HD2	1:B:4042:VAL:H	1.46	0.78
1:A:2788:ARG:HD3	1:A:2908:LYS:HZ1	1.46	0.78
1:A:3165:ALA:HA	1:A:3248:ARG:N	1.99	0.78
1:B:2923:TYR:O	1:B:2927:GLN:NE2	2.17	0.78
1:A:3890:TRP:HB3	1:B:76:ARG:HG2	1.63	0.78
1:B:2828:MET:HE1	1:B:2895:PHE:HD1	1.48	0.78
1:A:3162:PHE:O	1:A:3166:PHE:CB	2.32	0.78
1:D:3162:PHE:O	1:D:3166:PHE:CB	2.32	0.78
1:D:3163:ALA:C	1:D:3245:TYR:N	2.34	0.78
1:A:2828:MET:HE1	1:A:2895:PHE:HD1	1.48	0.77
1:A:3068:LEU:HD11	1:A:3140:LEU:HD11	1.66	0.77
1:C:2923:TYR:O	1:C:2927:GLN:NE2	2.17	0.77
1:D:2923:TYR:O	1:D:2927:GLN:NE2	2.17	0.77
1:D:3165:ALA:HA	1:D:3248:ARG:N	1.99	0.77
1:A:2923:TYR:O	1:A:2927:GLN:NE2	2.17	0.77
1:C:2828:MET:HE1	1:C:2895:PHE:HD1	1.48	0.77
1:C:4056:LYS:HE3	1:D:4660:PHE:O	1.84	0.77
1:D:3162:PHE:O	1:D:3245:TYR:N	2.18	0.77
1:A:3166:PHE:H	1:A:3245:TYR:HA	1.50	0.77
1:D:2828:MET:HE1	1:D:2895:PHE:HD1	1.48	0.77
1:C:3165:ALA:HA	1:C:3248:ARG:N	1.99	0.77
1:D:3068:LEU:HD11	1:D:3140:LEU:HD11	1.66	0.77
1:A:3942:ASP:OD2	1:B:174:LYS:NZ	2.18	0.77
1:B:3162:PHE:O	1:B:3166:PHE:CB	2.32	0.77
1:B:3218:ILE:HG13	1:B:3242:LEU:HD11	1.67	0.77
1:C:3166:PHE:H	1:C:3245:TYR:HA	1.50	0.77
1:A:3316:LYS:HA	1:A:3319:PHE:CD1	2.20	0.77
1:C:3163:ALA:C	1:C:3245:TYR:N	2.33	0.77
1:C:3316:LYS:HA	1:C:3319:PHE:CD1	2.20	0.77
1:D:3218:ILE:HG13	1:D:3242:LEU:HD11	1.67	0.77
1:D:3316:LYS:HA	1:D:3319:PHE:CD1	2.20	0.77
1:A:3162:PHE:O	1:A:3245:TYR:N	2.18	0.76
1:C:3162:PHE:O	1:C:3166:PHE:CB	2.32	0.76
1:C:3162:PHE:O	1:C:3245:TYR:N	2.18	0.76
1:C:4728:MET:HE3	1:C:4728:MET:HA	1.68	0.76
1:B:3162:PHE:O	1:B:3245:TYR:N	2.18	0.76
1:C:3218:ILE:HG13	1:C:3242:LEU:HD11	1.67	0.76
1:B:3316:LYS:HA	1:B:3319:PHE:CD1	2.20	0.76
1:B:3591:LEU:HD21	3:J:86:ILE:HG12	1.67	0.76
1:A:3218:ILE:HG13	1:A:3242:LEU:HD11	1.67	0.76
1:D:75:VAL:O	1:D:79:GLN:NE2	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4728:MET:HA	1:A:4728:MET:HE3	1.68	0.76
1:A:4864:GLY:HA2	1:D:4867:ILE:HG12	1.66	0.76
1:C:3165:ALA:N	1:C:3244:SER:HA	2.00	0.76
1:B:75:VAL:O	1:B:79:GLN:NE2	2.18	0.76
1:C:75:VAL:O	1:C:79:GLN:NE2	2.18	0.76
1:D:3166:PHE:H	1:D:3245:TYR:HA	1.50	0.76
1:B:3068:LEU:HD11	1:B:3140:LEU:HD11	1.66	0.75
1:C:3068:LEU:HD11	1:C:3140:LEU:HD11	1.66	0.75
1:A:75:VAL:O	1:A:79:GLN:NE2	2.18	0.75
1:D:3112:ILE:HD12	1:D:3121:LEU:HD23	1.69	0.75
1:A:3112:ILE:HD12	1:A:3121:LEU:HD23	1.69	0.75
1:D:3165:ALA:N	1:D:3244:SER:HA	2.00	0.75
1:B:4728:MET:HA	1:B:4728:MET:HE3	1.68	0.75
1:D:3162:PHE:O	1:D:3166:PHE:HB2	1.86	0.75
1:D:4728:MET:HA	1:D:4728:MET:HE3	1.67	0.75
1:B:3162:PHE:O	1:B:3166:PHE:HB2	1.86	0.74
1:C:4874:ARG:NH1	1:D:4868:ASP:OD1	2.20	0.74
1:A:3162:PHE:O	1:A:3166:PHE:HB2	1.86	0.74
1:B:3165:ALA:N	1:B:3244:SER:HA	2.00	0.74
1:C:3162:PHE:O	1:C:3166:PHE:HB2	1.87	0.74
1:A:3165:ALA:N	1:A:3244:SER:HA	2.00	0.74
1:C:3169:ALA:HA	1:C:3245:TYR:CE1	2.23	0.74
1:A:3945:VAL:HG23	1:A:4006:SER:HB3	1.70	0.74
1:C:2214:MET:HA	1:C:2214:MET:HE3	1.70	0.74
1:D:3169:ALA:HA	1:D:3245:TYR:CE1	2.23	0.74
1:A:3169:ALA:HA	1:A:3245:TYR:CE1	2.23	0.74
1:B:3166:PHE:H	1:B:3245:TYR:HA	1.50	0.74
1:D:2214:MET:HA	1:D:2214:MET:HE3	1.70	0.74
1:A:2732:TRP:HH2	1:A:2756:LEU:HB3	1.53	0.74
1:B:240:HIS:ND1	1:B:240:HIS:O	2.21	0.74
1:A:240:HIS:O	1:A:240:HIS:ND1	2.21	0.73
1:C:240:HIS:ND1	1:C:240:HIS:O	2.21	0.73
1:D:240:HIS:ND1	1:D:240:HIS:O	2.21	0.73
1:A:3164:GLY:CA	1:A:3245:TYR:N	2.52	0.73
1:C:1963:LYS:HE2	1:C:1966:ARG:HH21	1.53	0.73
1:B:1963:LYS:HE2	1:B:1966:ARG:HH21	1.53	0.73
1:C:2788:ARG:HD3	1:C:2908:LYS:HZ1	1.53	0.73
1:C:3112:ILE:HD12	1:C:3121:LEU:HD23	1.69	0.73
1:D:3159:LEU:HA	1:D:3162:PHE:HD2	1.53	0.73
1:B:3112:ILE:HD12	1:B:3121:LEU:HD23	1.69	0.73
1:C:494:MET:HE2	1:C:494:MET:HA	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4036:ASP:HB2	1:A:4043:ILE:HD13	1.71	0.73
1:C:3164:GLY:CA	1:C:3245:TYR:N	2.52	0.73
1:C:3945:VAL:HG23	1:C:4006:SER:HB3	1.70	0.73
1:D:4036:ASP:HB2	1:D:4043:ILE:HD13	1.71	0.73
1:B:2732:TRP:HH2	1:B:2756:LEU:HB3	1.53	0.73
1:B:3169:ALA:HA	1:B:3245:TYR:CE1	2.23	0.73
1:B:3945:VAL:HG23	1:B:4006:SER:HB3	1.70	0.73
1:C:2732:TRP:HH2	1:C:2756:LEU:HB3	1.53	0.73
1:C:3159:LEU:HA	1:C:3162:PHE:HD2	1.53	0.73
1:A:1963:LYS:HE2	1:A:1966:ARG:HH21	1.53	0.73
1:C:1958:THR:O	1:C:1966:ARG:NH1	2.22	0.72
1:D:2732:TRP:HH2	1:D:2756:LEU:HB3	1.53	0.72
1:B:494:MET:HE2	1:B:494:MET:HA	1.71	0.72
1:A:76:ARG:HG2	1:D:3890:TRP:HB3	1.71	0.72
1:A:2214:MET:HA	1:A:2214:MET:HE3	1.70	0.72
1:A:4660:PHE:O	1:D:4056:LYS:HE3	1.90	0.72
1:D:1958:THR:O	1:D:1966:ARG:NH1	2.22	0.72
1:A:3159:LEU:HA	1:A:3162:PHE:HD2	1.53	0.72
1:B:3164:GLY:CA	1:B:3245:TYR:N	2.52	0.72
1:C:3295:TRP:O	1:C:3298:ARG:HB2	1.90	0.72
1:B:317:MET:HB2	1:B:321:LYS:HE2	1.71	0.72
1:B:3159:LEU:HA	1:B:3162:PHE:HD2	1.53	0.72
1:C:1069:GLN:HE22	1:C:1071:HIS:HB2	1.55	0.72
1:D:3164:GLY:CA	1:D:3245:TYR:N	2.52	0.72
1:A:317:MET:HB2	1:A:321:LYS:HE2	1.71	0.72
1:D:1069:GLN:HE22	1:D:1071:HIS:HB2	1.55	0.72
1:D:3945:VAL:HG23	1:D:4006:SER:HB3	1.70	0.72
1:B:2214:MET:HA	1:B:2214:MET:HE3	1.70	0.72
1:C:4026:LEU:HD21	1:C:4052:MET:HG2	1.72	0.72
1:D:1963:LYS:HE2	1:D:1966:ARG:HH21	1.52	0.72
1:D:3295:TRP:O	1:D:3298:ARG:HB2	1.90	0.72
1:A:1958:THR:O	1:A:1966:ARG:NH1	2.22	0.72
1:B:1129:GLY:HA3	1:B:1145:TRP:HB3	1.71	0.72
1:B:3295:TRP:O	1:B:3298:ARG:HB2	1.90	0.72
1:B:4036:ASP:HB2	1:B:4043:ILE:HD13	1.71	0.72
1:C:317:MET:HB2	1:C:321:LYS:HE2	1.71	0.72
1:D:3164:GLY:CA	1:D:3246:MET:N	2.45	0.72
1:A:1129:GLY:HA3	1:A:1145:TRP:HB3	1.71	0.71
1:B:1205:CYS:HB3	1:B:1215:MET:HE3	1.72	0.71
1:D:235:ARG:NH1	1:D:268:SER:O	2.23	0.71
1:D:1129:GLY:HA3	1:D:1145:TRP:HB3	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:494:MET:HE2	1:A:494:MET:HA	1.71	0.71
1:A:3295:TRP:O	1:A:3298:ARG:HB2	1.90	0.71
1:B:3803:LEU:HB2	1:B:3884:SER:HB2	1.72	0.71
1:B:4026:LEU:HD21	1:B:4052:MET:HG2	1.72	0.71
1:C:1129:GLY:HA3	1:C:1145:TRP:HB3	1.71	0.71
1:C:3604:ARG:HA	3:K:52:MET:HE3	1.72	0.71
1:A:3034:HIS:HA	1:A:3104:MET:HE1	1.73	0.71
1:D:317:MET:HB2	1:D:321:LYS:HE2	1.71	0.71
1:B:1958:THR:O	1:B:1966:ARG:NH1	2.22	0.71
1:D:494:MET:HE2	1:D:494:MET:HA	1.71	0.71
1:D:3034:HIS:HA	1:D:3104:MET:HE1	1.72	0.71
1:C:2898:ILE:HD11	1:D:1501:ASN:ND2	2.05	0.71
1:C:3803:LEU:HB2	1:C:3884:SER:HB2	1.72	0.71
1:A:3228:TYR:HB2	1:A:3290:ILE:HD12	1.72	0.71
1:C:3277:LEU:HA	1:C:3280:ILE:HG12	1.72	0.71
1:C:4036:ASP:HB2	1:C:4043:ILE:HD13	1.71	0.71
1:A:1205:CYS:HB3	1:A:1215:MET:HE3	1.72	0.71
1:B:1069:GLN:HE22	1:B:1071:HIS:HB2	1.55	0.71
1:B:3166:PHE:HE2	1:B:3168:VAL:HG22	1.56	0.71
1:C:235:ARG:NH1	1:C:268:SER:O	2.23	0.71
1:C:3034:HIS:HA	1:C:3104:MET:HE1	1.72	0.71
1:A:235:ARG:NH1	1:A:268:SER:O	2.23	0.71
1:A:4026:LEU:HD21	1:A:4052:MET:HG2	1.72	0.71
1:A:3222:ALA:O	1:A:3282:LYS:NZ	2.24	0.71
1:A:1069:GLN:HE22	1:A:1071:HIS:HB2	1.55	0.71
1:A:3166:PHE:HE2	1:A:3168:VAL:HG22	1.56	0.70
1:A:4268:MET:HE1	1:B:4481:TRP:CZ2	2.26	0.70
1:B:3228:TYR:HB2	1:B:3290:ILE:HD12	1.72	0.70
1:C:1205:CYS:HB3	1:C:1215:MET:HE3	1.72	0.70
1:D:3277:LEU:HA	1:D:3280:ILE:HG12	1.73	0.70
1:C:3166:PHE:HE2	1:C:3168:VAL:HG22	1.56	0.70
1:C:3222:ALA:O	1:C:3282:LYS:NZ	2.24	0.70
1:B:235:ARG:NH1	1:B:268:SER:O	2.23	0.70
1:C:1433:PHE:O	1:C:1500:ARG:NH2	2.25	0.70
1:D:3222:ALA:O	1:D:3282:LYS:NZ	2.24	0.70
1:D:3228:TYR:HB2	1:D:3290:ILE:HD12	1.72	0.70
1:B:2930:ILE:O	1:B:3010:LYS:NZ	2.24	0.70
1:C:3164:GLY:N	1:C:3244:SER:N	2.40	0.70
1:D:2930:ILE:O	1:D:3010:LYS:NZ	2.24	0.70
1:D:4026:LEU:HD21	1:D:4052:MET:HG2	1.72	0.70
1:C:3164:GLY:HA3	1:C:3243:CYS:O	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3164:GLY:HA3	1:D:3243:CYS:O	1.92	0.70
1:B:3034:HIS:HA	1:B:3104:MET:HE1	1.73	0.70
1:D:1205:CYS:HB3	1:D:1215:MET:HE3	1.72	0.70
1:A:3803:LEU:HB2	1:A:3884:SER:HB2	1.72	0.70
1:D:3250:TRP:CD1	1:D:3273:MET:HE3	2.26	0.70
1:A:3239:LEU:HD22	1:A:3280:ILE:HG22	1.74	0.70
1:A:3323:MET:HE2	1:A:3323:MET:N	2.07	0.70
1:B:1433:PHE:O	1:B:1500:ARG:NH2	2.25	0.70
1:B:2192:MET:HA	1:B:2192:MET:HE2	1.74	0.70
1:C:2689:MET:HE1	1:C:2691:LYS:HE2	1.74	0.70
1:D:2689:MET:HE1	1:D:2691:LYS:HE2	1.74	0.70
1:A:963:LYS:HD2	1:A:977:LYS:HE3	1.74	0.69
1:B:3323:MET:HE2	1:B:3323:MET:N	2.07	0.69
1:C:3239:LEU:HD22	1:C:3280:ILE:HG22	1.73	0.69
1:C:3250:TRP:CD1	1:C:3273:MET:HE3	2.26	0.69
1:D:963:LYS:HD2	1:D:977:LYS:HE3	1.74	0.69
1:D:1433:PHE:O	1:D:1500:ARG:NH2	2.25	0.69
1:A:3164:GLY:HA3	1:A:3243:CYS:O	1.92	0.69
1:A:3242:LEU:O	1:A:3246:MET:HB2	1.92	0.69
1:A:4522:VAL:HG12	1:B:4807:ASP:O	1.92	0.69
1:B:3250:TRP:CD1	1:B:3273:MET:HE3	2.26	0.69
1:D:3241:MET:HG2	1:D:3242:LEU:N	2.08	0.69
1:A:3241:MET:HG2	1:A:3242:LEU:N	2.08	0.69
1:A:3250:TRP:CD1	1:A:3273:MET:HE3	2.26	0.69
1:D:3298:ARG:NH2	3:L:133:GLY:O	2.22	0.69
1:A:1433:PHE:O	1:A:1500:ARG:NH2	2.25	0.69
1:B:3016:ARG:HH21	1:B:3067:ASP:HB2	1.58	0.69
1:C:3228:TYR:HB2	1:C:3290:ILE:HD12	1.72	0.69
1:C:3242:LEU:O	1:C:3246:MET:HB2	1.92	0.69
1:D:3242:LEU:O	1:D:3246:MET:HB2	1.92	0.69
1:A:3277:LEU:HA	1:A:3280:ILE:HG12	1.73	0.69
1:B:3602:CYS:HB2	3:J:76:LYS:HG3	1.74	0.69
1:D:3164:GLY:N	1:D:3244:SER:N	2.40	0.69
1:D:3803:LEU:HB2	1:D:3884:SER:HB2	1.72	0.69
1:B:3239:LEU:HD22	1:B:3280:ILE:HG22	1.73	0.69
1:B:3164:GLY:CA	1:B:3246:MET:N	2.45	0.69
1:B:3222:ALA:O	1:B:3282:LYS:NZ	2.24	0.69
1:B:3277:LEU:HA	1:B:3280:ILE:HG12	1.73	0.69
1:A:2192:MET:HE2	1:A:2192:MET:HA	1.74	0.69
1:A:2930:ILE:O	1:A:3010:LYS:NZ	2.24	0.69
1:A:3163:ALA:C	1:A:3241:MET:O	2.36	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3312:PRO:HA	1:A:3315:LEU:HD12	1.75	0.69
1:B:3163:ALA:C	1:B:3241:MET:O	2.36	0.69
1:B:3241:MET:HG2	1:B:3242:LEU:N	2.07	0.69
1:C:2832:THR:OG1	1:D:1548:THR:O	2.10	0.69
1:C:3323:MET:HE2	1:C:3323:MET:N	2.07	0.69
1:D:2192:MET:HE2	1:D:2192:MET:HA	1.74	0.69
1:D:3163:ALA:C	1:D:3241:MET:O	2.36	0.69
1:D:3166:PHE:HE2	1:D:3168:VAL:HG22	1.56	0.69
1:D:3165:ALA:CA	1:D:3244:SER:O	2.41	0.69
1:A:3165:ALA:CA	1:A:3244:SER:O	2.41	0.69
1:A:4609:LYS:HD2	1:A:4615:LEU:HD22	1.74	0.69
1:B:963:LYS:HD2	1:B:977:LYS:HE3	1.74	0.69
1:B:2689:MET:HE1	1:B:2691:LYS:HE2	1.74	0.69
1:B:3164:GLY:HA3	1:B:3243:CYS:O	1.92	0.69
1:D:126:SER:HA	1:D:414:ARG:HH12	1.58	0.69
1:D:3239:LEU:HD22	1:D:3280:ILE:HG22	1.73	0.69
1:B:3164:GLY:N	1:B:3244:SER:N	2.40	0.68
1:B:3242:LEU:O	1:B:3246:MET:HB2	1.92	0.68
1:C:3016:ARG:HH21	1:C:3067:ASP:HB2	1.58	0.68
1:C:3241:MET:HG2	1:C:3242:LEU:N	2.08	0.68
1:A:4294:LEU:HD22	1:B:4719:PHE:CE2	2.28	0.68
1:B:3312:PRO:HA	1:B:3315:LEU:HD12	1.75	0.68
1:C:2988:ARG:HG3	1:C:2989:PRO:HD3	1.75	0.68
1:A:3164:GLY:HA2	1:A:3246:MET:CA	2.24	0.68
1:C:3163:ALA:C	1:C:3241:MET:O	2.36	0.68
1:D:3297:LYS:HE2	3:L:136:GLN:HB2	1.74	0.68
1:D:3323:MET:N	1:D:3323:MET:HE2	2.07	0.68
1:A:2689:MET:HE1	1:A:2691:LYS:HE2	1.74	0.68
1:B:555:LEU:HD12	1:B:588:ILE:HD11	1.76	0.68
1:C:2930:ILE:O	1:C:3010:LYS:NZ	2.24	0.68
1:C:3312:PRO:HA	1:C:3315:LEU:HD12	1.75	0.68
1:C:3600:VAL:HG21	3:K:37:MET:HG2	1.74	0.68
1:B:3164:GLY:HA2	1:B:3246:MET:CA	2.24	0.68
1:D:3016:ARG:HH21	1:D:3067:ASP:HB2	1.58	0.68
1:D:3312:PRO:HA	1:D:3315:LEU:HD12	1.75	0.68
1:A:3016:ARG:HH21	1:A:3067:ASP:HB2	1.58	0.68
1:D:963:LYS:NZ	1:D:979:ALA:O	2.27	0.68
1:D:4609:LYS:HD2	1:D:4615:LEU:HD22	1.74	0.68
1:B:3165:ALA:CA	1:B:3244:SER:O	2.41	0.68
1:C:2192:MET:HE2	1:C:2192:MET:HA	1.74	0.68
1:D:2988:ARG:HG3	1:D:2989:PRO:HD3	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4609:LYS:HD2	1:B:4615:LEU:HD22	1.75	0.68
1:C:963:LYS:NZ	1:C:979:ALA:O	2.27	0.68
1:C:963:LYS:HD2	1:C:977:LYS:HE3	1.74	0.68
1:D:3164:GLY:HA2	1:D:3246:MET:CA	2.24	0.68
1:C:3165:ALA:CA	1:C:3244:SER:O	2.41	0.68
1:C:3297:LYS:HE2	3:K:136:GLN:HB2	1.76	0.68
1:B:126:SER:HA	1:B:414:ARG:HH12	1.58	0.67
3:L:130:ASP:OD1	6:L:204:CA:CA	1.71	0.67
1:A:126:SER:HA	1:A:414:ARG:HH12	1.58	0.67
1:C:126:SER:HA	1:C:414:ARG:HH12	1.58	0.67
1:D:2570:GLU:HG2	1:D:2605:MET:HG3	1.77	0.67
1:D:2781:THR:OG1	1:D:2847:ASN:ND2	2.27	0.67
1:A:555:LEU:HD12	1:A:588:ILE:HD11	1.76	0.67
3:I:130:ASP:OD1	6:I:204:CA:CA	1.71	0.67
1:C:2781:THR:OG1	1:C:2847:ASN:ND2	2.27	0.67
1:C:3160:ALA:C	1:C:3244:SER:HB3	2.20	0.67
1:A:3160:ALA:C	1:A:3244:SER:HB3	2.20	0.67
1:D:3160:ALA:C	1:D:3244:SER:HB3	2.20	0.67
1:A:2988:ARG:HG3	1:A:2989:PRO:HD3	1.75	0.67
1:A:4694:LEU:HB2	1:D:4268:MET:CE	2.25	0.67
1:C:2570:GLU:HG2	1:C:2605:MET:HG3	1.77	0.67
1:D:2689:MET:HE3	1:D:2689:MET:O	1.95	0.67
1:A:2689:MET:HE3	1:A:2689:MET:O	1.95	0.67
1:A:4818:TYR:HD1	1:B:4848:ILE:HD11	1.60	0.67
1:B:2689:MET:O	1:B:2689:MET:HE3	1.95	0.67
1:B:3160:ALA:C	1:B:3244:SER:HB3	2.20	0.67
1:B:3164:GLY:N	1:B:3244:SER:C	2.53	0.67
1:C:4609:LYS:HD2	1:C:4615:LEU:HD22	1.74	0.67
1:D:555:LEU:HD12	1:D:588:ILE:HD11	1.75	0.67
1:A:1239:PHE:O	1:A:1807:ARG:NH2	2.28	0.67
1:A:1936:LEU:HD11	1:A:1976:LEU:HD22	1.77	0.67
1:C:878:LEU:HA	1:C:881:ILE:HG22	1.77	0.67
1:C:2308:CYS:SG	1:C:2309:ASN:ND2	2.68	0.67
1:A:2781:THR:OG1	1:A:2847:ASN:ND2	2.27	0.67
2:F:19:LYS:HE2	2:F:19:LYS:HA	1.78	0.67
2:G:58:LYS:HZ3	2:G:81:VAL:HA	1.60	0.67
1:B:2308:CYS:SG	1:B:2309:ASN:ND2	2.68	0.67
1:B:2781:THR:OG1	1:B:2847:ASN:ND2	2.27	0.67
1:D:2308:CYS:SG	1:D:2309:ASN:ND2	2.68	0.67
1:B:2988:ARG:HG3	1:B:2989:PRO:HD3	1.75	0.66
1:A:2308:CYS:SG	1:A:2309:ASN:ND2	2.68	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:254:GLU:OE2	1:A:304:LYS:NZ	2.29	0.66
1:D:3164:GLY:N	1:D:3244:SER:C	2.53	0.66
1:A:3164:GLY:N	1:A:3244:SER:C	2.53	0.66
1:B:254:GLU:OE2	1:B:304:LYS:NZ	2.29	0.66
1:C:254:GLU:OE2	1:C:304:LYS:NZ	2.29	0.66
1:C:3164:GLY:HA2	1:C:3246:MET:CA	2.24	0.66
1:D:1239:PHE:O	1:D:1807:ARG:NH2	2.28	0.66
1:A:3164:GLY:N	1:A:3244:SER:N	2.40	0.66
1:A:4271:VAL:HG12	1:B:4480:PHE:CZ	2.30	0.66
1:C:1239:PHE:O	1:C:1807:ARG:NH2	2.28	0.66
1:C:3162:PHE:O	1:C:3166:PHE:HB3	1.96	0.66
1:A:3162:PHE:O	1:A:3166:PHE:HB3	1.96	0.66
2:E:19:LYS:HA	2:E:19:LYS:HE2	1.77	0.66
2:G:19:LYS:HE2	2:G:19:LYS:HA	1.77	0.66
1:B:1239:PHE:O	1:B:1807:ARG:NH2	2.28	0.66
1:C:1303:ARG:NH2	1:C:1635:GLU:OE2	2.29	0.66
1:C:3164:GLY:N	1:C:3244:SER:C	2.53	0.66
1:C:3890:TRP:HB3	1:D:76:ARG:HG2	1.76	0.66
1:B:3162:PHE:O	1:B:3166:PHE:HB3	1.96	0.66
1:B:3179:ASN:ND2	1:B:3265:CYS:SG	2.69	0.66
1:C:162:ILE:HD12	1:C:181:LEU:HD23	1.78	0.66
1:C:3179:ASN:ND2	1:C:3265:CYS:SG	2.69	0.66
3:J:130:ASP:OD1	6:J:204:CA:CA	1.71	0.66
1:B:1936:LEU:HD11	1:B:1976:LEU:HD22	1.77	0.66
1:C:882:ARG:O	1:C:886:ALA:N	2.28	0.66
1:C:4617:ILE:HG23	1:C:4665:ARG:HH22	1.61	0.66
1:B:878:LEU:HA	1:B:881:ILE:HG22	1.77	0.66
1:B:1038:LEU:HD21	1:B:1042:THR:HB	1.77	0.66
1:D:254:GLU:OE2	1:D:304:LYS:NZ	2.29	0.66
1:D:1936:LEU:HD11	1:D:1976:LEU:HD22	1.77	0.66
1:D:4617:ILE:HG23	1:D:4665:ARG:HH22	1.61	0.66
1:A:1038:LEU:HD21	1:A:1042:THR:HB	1.77	0.65
1:A:2338:GLU:OE1	1:A:2338:GLU:N	2.29	0.65
1:A:3164:GLY:CA	1:A:3246:MET:N	2.45	0.65
1:C:555:LEU:HD12	1:C:588:ILE:HD11	1.76	0.65
1:C:2689:MET:O	1:C:2689:MET:HE3	1.95	0.65
1:C:3192:ARG:CZ	1:C:3197:LEU:HB3	2.26	0.65
1:A:2570:GLU:HG2	1:A:2605:MET:HG3	1.76	0.65
1:B:2570:GLU:HG2	1:B:2605:MET:HG3	1.77	0.65
1:B:3164:GLY:HA3	1:B:3243:CYS:C	2.21	0.65
1:D:878:LEU:HA	1:D:881:ILE:HG22	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:130:ASP:OD1	6:K:204:CA:CA	1.71	0.65
1:B:1303:ARG:NH2	1:B:1635:GLU:OE2	2.29	0.65
1:B:2733:SER:O	1:B:2737:LEU:HD13	1.97	0.65
1:B:4617:ILE:HG23	1:B:4665:ARG:HH22	1.61	0.65
1:C:2733:SER:O	1:C:2737:LEU:HD13	1.97	0.65
1:C:3160:ALA:HA	1:C:3241:MET:HA	1.79	0.65
1:D:162:ILE:HD12	1:D:181:LEU:HD23	1.78	0.65
1:A:882:ARG:O	1:A:886:ALA:N	2.28	0.65
1:B:963:LYS:NZ	1:B:979:ALA:O	2.27	0.65
1:B:2311:GLU:OE1	1:B:2311:GLU:N	2.30	0.65
1:C:3031:ASN:HA	1:C:3034:HIS:CD2	2.31	0.65
1:C:3164:GLY:C	1:C:3244:SER:C	2.65	0.65
1:D:2338:GLU:OE1	1:D:2338:GLU:N	2.29	0.65
1:D:3179:ASN:ND2	1:D:3265:CYS:SG	2.69	0.65
1:D:3273:MET:N	1:D:3273:MET:SD	2.70	0.65
1:A:1303:ARG:NH2	1:A:1635:GLU:OE2	2.29	0.65
1:A:3273:MET:N	1:A:3273:MET:SD	2.70	0.65
1:A:4617:ILE:HG23	1:A:4665:ARG:HH22	1.61	0.65
2:E:58:LYS:HZ3	2:E:81:VAL:HA	1.60	0.65
2:F:20:GLY:HA2	2:F:53:LYS:NZ	2.12	0.65
1:D:882:ARG:O	1:D:886:ALA:N	2.28	0.65
1:D:2733:SER:O	1:D:2737:LEU:HD13	1.97	0.65
2:H:19:LYS:HA	2:H:19:LYS:HE2	1.77	0.65
1:B:2338:GLU:OE1	1:B:2338:GLU:N	2.29	0.65
1:A:3179:ASN:ND2	1:A:3265:CYS:SG	2.69	0.65
1:A:3316:LYS:HA	1:A:3319:PHE:HD1	1.62	0.65
1:D:2935:GLU:HA	1:D:2938:GLN:HG3	1.79	0.65
1:A:162:ILE:HD12	1:A:181:LEU:HD23	1.78	0.65
1:A:2311:GLU:OE1	1:A:2311:GLU:N	2.30	0.65
1:A:2935:GLU:HA	1:A:2938:GLN:HG3	1.79	0.65
1:C:1936:LEU:HD11	1:C:1976:LEU:HD22	1.77	0.65
1:C:2935:GLU:HA	1:C:2938:GLN:HG3	1.79	0.65
1:C:3068:LEU:O	1:C:3071:THR:OG1	2.15	0.65
1:D:2311:GLU:OE1	1:D:2311:GLU:N	2.30	0.65
1:A:309:MET:HE3	1:A:315:LEU:HB3	1.79	0.65
1:A:878:LEU:HA	1:A:881:ILE:HG22	1.77	0.65
1:A:3068:LEU:O	1:A:3071:THR:OG1	2.15	0.65
1:A:3160:ALA:HA	1:A:3241:MET:HA	1.79	0.65
1:A:3164:GLY:HA3	1:A:3243:CYS:C	2.21	0.65
1:A:3192:ARG:CZ	1:A:3197:LEU:HB3	2.26	0.65
1:D:1038:LEU:HD21	1:D:1042:THR:HB	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2456:MET:HA	1:A:2456:MET:HE2	1.79	0.65
1:A:2733:SER:O	1:A:2737:LEU:HD13	1.97	0.65
1:A:3031:ASN:HA	1:A:3034:HIS:CD2	2.31	0.65
2:E:20:GLY:HA2	2:E:53:LYS:NZ	2.12	0.65
2:F:58:LYS:HZ3	2:F:81:VAL:HA	1.62	0.65
1:B:2456:MET:HE2	1:B:2456:MET:HA	1.79	0.65
1:C:2311:GLU:OE1	1:C:2311:GLU:N	2.30	0.65
1:D:3031:ASN:HA	1:D:3034:HIS:CD2	2.32	0.65
1:A:3164:GLY:C	1:A:3244:SER:C	2.64	0.64
1:B:162:ILE:HD12	1:B:181:LEU:HD23	1.78	0.64
1:B:3942:ASP:OD2	1:C:174:LYS:NZ	2.30	0.64
1:C:2456:MET:HE2	1:C:2456:MET:HA	1.79	0.64
1:D:3192:ARG:CZ	1:D:3197:LEU:HB3	2.26	0.64
3:J:27:THR:O	6:J:201:CA:CA	1.74	0.64
1:A:4182:GLU:HG3	1:D:4906:GLU:OE2	1.97	0.64
3:I:27:THR:O	6:I:201:CA:CA	1.74	0.64
1:B:2935:GLU:HA	1:B:2938:GLN:HG3	1.79	0.64
1:C:1038:LEU:HD21	1:C:1042:THR:HB	1.77	0.64
1:C:3273:MET:N	1:C:3273:MET:SD	2.70	0.64
1:D:1303:ARG:NH2	1:D:1635:GLU:OE2	2.29	0.64
1:D:1415:ASP:OD2	1:D:1559:ARG:NH2	2.31	0.64
1:D:2734:MET:HE1	1:D:2825:ALA:H	1.61	0.64
1:D:3164:GLY:HA3	1:D:3243:CYS:C	2.21	0.64
2:G:20:GLY:HA2	2:G:53:LYS:NZ	2.12	0.64
1:B:3031:ASN:HA	1:B:3034:HIS:CD2	2.31	0.64
1:C:309:MET:HE3	1:C:315:LEU:HB3	1.79	0.64
3:K:27:THR:O	6:K:201:CA:CA	1.74	0.64
1:B:891:GLU:HA	1:B:894:VAL:HG22	1.79	0.64
1:B:3160:ALA:HA	1:B:3241:MET:HA	1.79	0.64
1:B:3273:MET:N	1:B:3273:MET:SD	2.70	0.64
1:B:924:LEU:HD12	1:B:925:PRO:HD2	1.79	0.64
1:B:3192:ARG:CZ	1:B:3197:LEU:HB3	2.26	0.64
1:C:829:LYS:HZ1	1:C:1037:LEU:HD13	1.62	0.64
1:A:2734:MET:HE1	1:A:2825:ALA:H	1.61	0.64
1:C:891:GLU:HA	1:C:894:VAL:HG22	1.79	0.64
1:A:3161:ALA:O	1:A:3244:SER:C	2.41	0.64
1:B:2788:ARG:HD3	1:B:2908:LYS:NZ	2.13	0.64
1:C:2338:GLU:N	1:C:2338:GLU:OE1	2.29	0.64
1:C:2734:MET:HE1	1:C:2825:ALA:H	1.61	0.64
1:D:924:LEU:HD12	1:D:925:PRO:HD2	1.79	0.64
1:D:3160:ALA:HA	1:D:3241:MET:HA	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3108:LEU:HD12	1:A:3111:HIS:CE1	2.28	0.64
1:A:4520:TYR:CE2	1:A:4559:TYR:HB3	2.33	0.64
1:B:3164:GLY:C	1:B:3244:SER:C	2.64	0.64
1:D:309:MET:HE3	1:D:315:LEU:HB3	1.79	0.64
1:D:2456:MET:HA	1:D:2456:MET:HE2	1.79	0.64
1:B:309:MET:HE3	1:B:315:LEU:HB3	1.79	0.64
1:B:3273:MET:HA	1:B:3276:LEU:HG	1.80	0.64
1:C:924:LEU:HD12	1:C:925:PRO:HD2	1.79	0.64
1:C:3164:GLY:HA3	1:C:3243:CYS:C	2.21	0.64
1:D:2711:ILE:O	1:D:2780:LYS:NZ	2.31	0.64
1:D:2788:ARG:HD3	1:D:2908:LYS:NZ	2.13	0.64
1:D:3164:GLY:CA	1:D:3243:CYS:C	2.71	0.64
1:D:3316:LYS:HA	1:D:3319:PHE:HD1	1.62	0.64
1:A:1957:LEU:HD21	3:I:42:GLN:NE2	2.12	0.64
1:A:2711:ILE:O	1:A:2780:LYS:NZ	2.31	0.64
1:A:3164:GLY:CA	1:A:3243:CYS:C	2.71	0.64
1:B:1415:ASP:OD2	1:B:1559:ARG:NH2	2.31	0.64
1:B:3164:GLY:CA	1:B:3243:CYS:C	2.71	0.64
1:D:3162:PHE:O	1:D:3166:PHE:HB3	1.96	0.64
1:A:679:VAL:HA	1:A:800:VAL:HG12	1.80	0.63
1:A:3273:MET:HA	1:A:3276:LEU:HG	1.80	0.63
2:H:20:GLY:HA2	2:H:53:LYS:NZ	2.12	0.63
1:C:3164:GLY:CA	1:C:3243:CYS:C	2.71	0.63
1:D:891:GLU:HA	1:D:894:VAL:HG22	1.79	0.63
1:D:3164:GLY:C	1:D:3244:SER:C	2.64	0.63
1:A:412:GLU:HG3	1:A:488:LEU:HD11	1.80	0.63
1:A:1415:ASP:OD2	1:A:1559:ARG:NH2	2.31	0.63
1:B:2798:MET:HB3	1:C:1498:GLN:HE22	1.63	0.63
1:C:1415:ASP:OD2	1:C:1559:ARG:NH2	2.31	0.63
1:D:4520:TYR:CE2	1:D:4559:TYR:HB3	2.33	0.63
1:A:3088:LYS:N	1:A:3091:THR:HG1	1.96	0.63
1:B:829:LYS:HZ1	1:B:1037:LEU:HD13	1.63	0.63
1:C:678:MET:SD	1:C:801:ARG:NH2	2.72	0.63
1:C:3161:ALA:O	1:C:3244:SER:C	2.41	0.63
1:C:3164:GLY:CA	1:C:3247:SER:H	2.11	0.63
1:D:3164:GLY:CA	1:D:3245:TYR:C	2.72	0.63
1:A:2788:ARG:HD3	1:A:2908:LYS:NZ	2.13	0.63
1:A:3164:GLY:CA	1:A:3247:SER:H	2.11	0.63
1:B:2790:GLU:O	1:B:2902:ALA:N	2.30	0.63
1:C:2790:GLU:O	1:C:2902:ALA:N	2.30	0.63
1:D:679:VAL:HA	1:D:800:VAL:HG12	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2790:GLU:O	1:D:2902:ALA:N	2.30	0.63
1:D:3161:ALA:O	1:D:3244:SER:C	2.41	0.63
3:L:27:THR:O	6:L:201:CA:CA	1.74	0.63
1:B:412:GLU:HG3	1:B:488:LEU:HD11	1.80	0.63
1:B:2734:MET:HE1	1:B:2825:ALA:H	1.62	0.63
1:B:3209:PRO:HB2	1:B:3214:LEU:HG	1.81	0.63
1:D:412:GLU:HG3	1:D:488:LEU:HD11	1.80	0.63
1:D:2497:ARG:HD2	1:D:2872:VAL:HG21	1.81	0.63
1:D:3088:LYS:N	1:D:3091:THR:HG1	1.97	0.63
1:D:3209:PRO:HB2	1:D:3214:LEU:HG	1.81	0.63
1:D:3068:LEU:O	1:D:3071:THR:OG1	2.15	0.63
1:A:891:GLU:HA	1:A:894:VAL:HG22	1.79	0.63
1:A:3164:GLY:CA	1:A:3245:TYR:C	2.72	0.63
1:A:3209:PRO:HB2	1:A:3214:LEU:HG	1.81	0.63
1:B:3161:ALA:O	1:B:3244:SER:C	2.41	0.63
1:C:3088:LYS:N	1:C:3091:THR:HG1	1.97	0.63
1:C:3164:GLY:CA	1:C:3246:MET:N	2.45	0.63
1:C:3209:PRO:HB2	1:C:3214:LEU:HG	1.81	0.63
1:D:3273:MET:HA	1:D:3276:LEU:HG	1.81	0.63
1:A:3165:ALA:N	1:A:3244:SER:CA	2.62	0.63
1:B:281:ARG:HH12	1:B:284:TRP:HB2	1.64	0.63
1:B:3068:LEU:O	1:B:3071:THR:OG1	2.15	0.63
1:C:3165:ALA:C	1:C:3244:SER:O	2.42	0.63
1:C:4520:TYR:CE2	1:C:4559:TYR:HB3	2.33	0.63
1:A:1042:THR:O	1:A:1046:ASN:ND2	2.32	0.63
1:A:3165:ALA:C	1:A:3244:SER:O	2.42	0.63
1:C:2497:ARG:HD2	1:C:2872:VAL:HG21	1.81	0.63
1:C:3164:GLY:CA	1:C:3245:TYR:C	2.72	0.63
1:D:1042:THR:O	1:D:1046:ASN:ND2	2.32	0.63
1:A:2790:GLU:O	1:A:2902:ALA:N	2.30	0.62
1:B:678:MET:SD	1:B:801:ARG:NH2	2.72	0.62
1:B:4520:TYR:CE2	1:B:4559:TYR:HB3	2.33	0.62
1:C:2711:ILE:O	1:C:2780:LYS:NZ	2.31	0.62
1:C:3164:GLY:HA3	1:C:3242:LEU:O	1.99	0.62
1:C:3316:LYS:HA	1:C:3319:PHE:HD1	1.62	0.62
1:D:3164:GLY:C	1:D:3244:SER:CA	2.70	0.62
1:D:3165:ALA:N	1:D:3244:SER:CA	2.62	0.62
1:D:3248:ARG:HB3	1:D:3249:TRP:CE3	2.34	0.62
1:A:270:HIS:CD2	1:A:491:GLU:HG3	2.34	0.62
1:A:678:MET:SD	1:A:801:ARG:NH2	2.72	0.62
1:A:924:LEU:HD12	1:A:925:PRO:HD2	1.79	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2711:ILE:O	1:B:2780:LYS:NZ	2.31	0.62
1:C:281:ARG:HH12	1:C:284:TRP:HB2	1.64	0.62
1:C:2788:ARG:HD3	1:C:2908:LYS:NZ	2.13	0.62
1:C:3164:GLY:C	1:C:3244:SER:CA	2.70	0.62
1:C:3273:MET:HA	1:C:3276:LEU:HG	1.80	0.62
1:D:678:MET:SD	1:D:801:ARG:NH2	2.72	0.62
1:A:2497:ARG:HD2	1:A:2872:VAL:HG21	1.81	0.62
1:A:2678:PRO:HD3	1:A:2978:HIS:CE1	2.34	0.62
1:C:188:SER:HB2	1:C:190:ARG:HH11	1.65	0.62
1:D:270:HIS:CD2	1:D:491:GLU:HG3	2.34	0.62
1:D:2678:PRO:HD3	1:D:2978:HIS:CE1	2.34	0.62
1:A:1978:ASN:ND2	1:A:1985:GLU:OE2	2.33	0.62
1:A:2734:MET:HE2	1:A:2823:PRO:HB2	1.81	0.62
1:A:3164:GLY:O	1:A:3243:CYS:O	2.18	0.62
1:B:3088:LYS:N	1:B:3091:THR:HG1	1.97	0.62
1:B:3164:GLY:O	1:B:3243:CYS:O	2.18	0.62
1:B:3165:ALA:N	1:B:3244:SER:CA	2.62	0.62
1:C:3298:ARG:HH12	3:K:133:GLY:HA3	1.63	0.62
1:D:281:ARG:HH12	1:D:284:TRP:HB2	1.64	0.62
1:B:270:HIS:CD2	1:B:491:GLU:HG3	2.34	0.62
1:C:1114:ARG:NH1	1:C:1128:LEU:O	2.33	0.62
1:C:3165:ALA:N	1:C:3244:SER:CA	2.62	0.62
1:C:3298:ARG:NH2	3:K:133:GLY:C	2.57	0.62
1:A:1962:THR:OG1	1:A:1966:ARG:NH1	2.33	0.62
1:A:3164:GLY:C	1:A:3244:SER:CA	2.70	0.62
1:B:1042:THR:O	1:B:1046:ASN:ND2	2.32	0.62
1:B:3164:GLY:C	1:B:3244:SER:CA	2.70	0.62
1:B:3164:GLY:CA	1:B:3247:SER:H	2.11	0.62
1:C:412:GLU:HG3	1:C:488:LEU:HD11	1.80	0.62
1:C:2734:MET:HE2	1:C:2823:PRO:HB2	1.82	0.62
1:D:2592:LEU:HD22	1:D:2606:PRO:HB3	1.81	0.62
1:A:963:LYS:NZ	1:A:979:ALA:O	2.27	0.62
1:B:882:ARG:O	1:B:886:ALA:N	2.28	0.62
1:B:3297:LYS:HE2	3:J:136:GLN:HB2	1.82	0.62
1:D:1962:THR:OG1	1:D:1966:ARG:NH1	2.33	0.62
1:D:2999:LYS:HA	1:D:3002:GLU:HG3	1.82	0.62
1:A:1114:ARG:NH1	1:A:1128:LEU:O	2.33	0.62
1:A:2592:LEU:HD22	1:A:2606:PRO:HB3	1.81	0.62
1:A:3248:ARG:HB3	1:A:3249:TRP:CE3	2.34	0.62
1:C:1711:LEU:HD22	1:C:1831:MET:HE1	1.82	0.62
1:D:3164:GLY:HA3	1:D:3242:LEU:O	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4026:LEU:HD13	1:D:4055:HIS:CG	2.35	0.62
1:A:2999:LYS:HA	1:A:3002:GLU:HG3	1.82	0.62
1:A:3982:LEU:HD22	1:A:3999:MET:HE2	1.82	0.62
1:B:1114:ARG:NH1	1:B:1128:LEU:O	2.33	0.62
1:B:2497:ARG:HD2	1:B:2872:VAL:HG21	1.81	0.62
1:B:2678:PRO:HD3	1:B:2978:HIS:CE1	2.34	0.62
1:B:3165:ALA:C	1:B:3244:SER:O	2.42	0.62
1:C:1962:THR:OG1	1:C:1966:ARG:NH1	2.33	0.62
1:D:188:SER:HB2	1:D:190:ARG:HH11	1.65	0.62
1:D:829:LYS:HZ1	1:D:1037:LEU:HD13	1.63	0.62
1:D:1114:ARG:NH1	1:D:1128:LEU:O	2.33	0.62
1:D:1760:ARG:HE	1:D:1762:GLN:HE22	1.48	0.62
1:D:1978:ASN:ND2	1:D:1985:GLU:OE2	2.33	0.62
1:D:3164:GLY:CA	1:D:3247:SER:H	2.11	0.62
1:D:4187:GLU:OE2	1:D:4947:ARG:NH2	2.32	0.62
1:A:2969:PRO:O	1:A:2973:GLN:NE2	2.33	0.62
1:A:3326:LEU:HA	1:A:3329:LYS:HB3	1.82	0.62
1:B:1962:THR:OG1	1:B:1966:ARG:NH1	2.33	0.62
1:B:2592:LEU:HD22	1:B:2606:PRO:HB3	1.81	0.62
1:B:3164:GLY:CA	1:B:3243:CYS:O	2.48	0.62
1:B:3164:GLY:CA	1:B:3245:TYR:C	2.72	0.62
1:B:3248:ARG:HB3	1:B:3249:TRP:CE3	2.35	0.62
1:B:3316:LYS:HA	1:B:3319:PHE:HD1	1.62	0.62
1:C:679:VAL:HA	1:C:800:VAL:HG12	1.80	0.62
1:C:1978:ASN:ND2	1:C:1985:GLU:OE2	2.33	0.62
1:C:2999:LYS:HA	1:C:3002:GLU:HG3	1.82	0.62
1:C:3164:GLY:O	1:C:3243:CYS:O	2.18	0.62
1:D:1957:LEU:HD21	3:L:42:GLN:NE2	2.15	0.62
1:D:2734:MET:HE2	1:D:2823:PRO:HB2	1.81	0.62
1:D:3298:ARG:HH22	3:L:133:GLY:C	2.08	0.62
1:A:4698:LEU:HD22	1:D:4259:LEU:HD11	1.82	0.61
1:B:679:VAL:HA	1:B:800:VAL:HG12	1.80	0.61
1:B:2734:MET:HE2	1:B:2823:PRO:HB2	1.82	0.61
1:B:3159:LEU:HA	1:B:3162:PHE:CD2	2.35	0.61
1:B:3164:GLY:HA3	1:B:3242:LEU:O	1.99	0.61
1:C:2592:LEU:HD22	1:C:2606:PRO:HB3	1.81	0.61
1:D:2969:PRO:O	1:D:2973:GLN:NE2	2.33	0.61
1:D:3803:LEU:HD22	1:D:3888:PHE:CE2	2.35	0.61
1:A:188:SER:HB2	1:A:190:ARG:HH11	1.65	0.61
1:A:3803:LEU:HD22	1:A:3888:PHE:CE2	2.35	0.61
1:A:4187:GLU:OE2	1:A:4947:ARG:NH2	2.32	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1722:ASN:O	1:B:1919:ARG:NH2	2.33	0.61
1:C:2678:PRO:HD3	1:C:2978:HIS:CE1	2.34	0.61
1:C:4026:LEU:HD13	1:C:4055:HIS:CG	2.35	0.61
1:C:4862:ILE:HD13	1:D:4852:PHE:HE1	1.65	0.61
1:B:188:SER:HB2	1:B:190:ARG:HH11	1.65	0.61
1:C:1760:ARG:HE	1:C:1762:GLN:HE22	1.48	0.61
1:C:3248:ARG:HB3	1:C:3249:TRP:CE3	2.34	0.61
1:C:3803:LEU:HD22	1:C:3888:PHE:CE2	2.35	0.61
1:C:4144:ARG:HB3	1:C:4961:GLN:HE22	1.65	0.61
1:D:2729:HIS:CD2	1:D:2763:LEU:HD11	2.36	0.61
1:D:3982:LEU:HD22	1:D:3999:MET:HE2	1.82	0.61
1:A:3159:LEU:HA	1:A:3162:PHE:CD2	2.35	0.61
1:B:2729:HIS:CD2	1:B:2763:LEU:HD11	2.36	0.61
1:B:4026:LEU:HD13	1:B:4055:HIS:CG	2.35	0.61
1:D:3298:ARG:NH1	3:L:132:ASP:O	2.34	0.61
1:A:992:GLN:HE22	1:A:1064:LEU:HD11	1.66	0.61
1:A:4026:LEU:HD13	1:A:4055:HIS:CG	2.35	0.61
1:B:34:LYS:H	1:B:53:SER:HB3	1.65	0.61
1:B:2969:PRO:O	1:B:2973:GLN:NE2	2.33	0.61
1:C:3159:LEU:HA	1:C:3162:PHE:CD2	2.35	0.61
1:D:3164:GLY:CA	1:D:3243:CYS:O	2.48	0.61
1:D:3164:GLY:O	1:D:3243:CYS:O	2.18	0.61
1:D:3165:ALA:C	1:D:3244:SER:O	2.42	0.61
1:D:3313:GLN:HA	1:D:3316:LYS:HG2	1.82	0.61
1:B:2788:ARG:HD3	1:B:2908:LYS:HZ1	1.64	0.61
1:B:3982:LEU:HD22	1:B:3999:MET:HE2	1.82	0.61
1:C:992:GLN:HE22	1:C:1064:LEU:HD11	1.66	0.61
1:D:1979:PHE:HE1	1:D:1988:CYS:HB3	1.65	0.61
1:D:3322:LEU:O	1:D:3326:LEU:HB2	2.01	0.61
3:K:77:MET:O	3:K:77:MET:HE2	2.01	0.61
1:A:281:ARG:HH12	1:A:284:TRP:HB2	1.64	0.61
1:A:605:GLY:HA2	1:A:1585:ARG:HD2	1.83	0.61
1:A:1007:TRP:NE1	1:A:1011:ARG:HE	1.99	0.61
1:A:1711:LEU:HD22	1:A:1831:MET:HE1	1.82	0.61
2:H:58:LYS:HZ3	2:H:81:VAL:HA	1.66	0.61
1:C:1722:ASN:O	1:C:1919:ARG:NH2	2.33	0.61
1:C:3164:GLY:CA	1:C:3243:CYS:O	2.48	0.61
1:D:3295:TRP:HA	1:D:3298:ARG:CG	2.30	0.61
1:D:4144:ARG:HB3	1:D:4961:GLN:HE22	1.65	0.61
1:A:3163:ALA:CA	1:A:3245:TYR:N	2.62	0.61
1:A:3313:GLN:HA	1:A:3316:LYS:HG2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1007:TRP:NE1	1:B:1011:ARG:HE	1.99	0.61
1:B:1979:PHE:HE1	1:B:1988:CYS:HB3	1.65	0.61
1:B:3118:GLY:O	1:B:3122:ILE:HG12	2.01	0.61
1:C:270:HIS:CD2	1:C:491:GLU:HG3	2.34	0.61
1:C:2969:PRO:O	1:C:2973:GLN:NE2	2.33	0.61
1:D:3163:ALA:CA	1:D:3245:TYR:N	2.61	0.61
3:J:77:MET:HE2	3:J:77:MET:O	2.01	0.61
1:A:2729:HIS:CD2	1:A:2763:LEU:HD11	2.36	0.61
1:B:1711:LEU:HD22	1:B:1831:MET:HE1	1.82	0.61
1:B:3326:LEU:HA	1:B:3329:LYS:HB3	1.82	0.61
1:C:3164:GLY:N	1:C:3241:MET:O	2.34	0.61
1:C:3322:LEU:O	1:C:3326:LEU:HB2	2.01	0.61
1:D:1414:ARG:NH1	1:D:1415:ASP:O	2.34	0.61
3:L:77:MET:HE2	3:L:77:MET:O	2.01	0.61
1:A:1979:PHE:HE1	1:A:1988:CYS:HB3	1.65	0.61
1:A:3118:GLY:O	1:A:3122:ILE:HG12	2.01	0.61
1:A:3163:ALA:N	1:A:3245:TYR:H	1.99	0.61
1:A:3164:GLY:HA3	1:A:3242:LEU:O	2.00	0.61
1:A:4287:TYR:HE1	1:B:4591:TYR:CD2	2.19	0.61
1:C:2730:ASP:O	1:C:2734:MET:HG3	2.01	0.61
1:D:952:ILE:HA	1:D:1062:TYR:HA	1.82	0.61
1:D:1711:LEU:HD22	1:D:1831:MET:HE1	1.82	0.61
3:I:77:MET:HE2	3:I:77:MET:O	2.01	0.60
1:B:952:ILE:HA	1:B:1062:TYR:HA	1.82	0.60
1:B:1978:ASN:ND2	1:B:1985:GLU:OE2	2.33	0.60
1:B:2732:TRP:CD1	1:B:2736:LYS:HE3	2.36	0.60
1:B:3322:LEU:O	1:B:3326:LEU:HB2	2.01	0.60
1:B:3596:LYS:HE2	3:J:19:LEU:HB3	1.82	0.60
1:B:3803:LEU:HD22	1:B:3888:PHE:CE2	2.35	0.60
1:C:235:ARG:NH2	1:C:412:GLU:OE1	2.34	0.60
1:C:2055:SER:O	1:C:2060:GLN:NE2	2.34	0.60
1:D:235:ARG:NH2	1:D:412:GLU:OE1	2.34	0.60
1:D:605:GLY:HA2	1:D:1585:ARG:HD2	1.83	0.60
1:D:1722:ASN:O	1:D:1919:ARG:NH2	2.33	0.60
1:A:3322:LEU:O	1:A:3326:LEU:HB2	2.01	0.60
1:A:4864:GLY:CA	1:D:4867:ILE:HG12	2.30	0.60
1:B:3161:ALA:O	1:B:3166:PHE:HB2	2.01	0.60
1:B:3164:GLY:N	1:B:3241:MET:O	2.34	0.60
1:C:114:LEU:HB2	1:C:117:HIS:CE1	2.37	0.60
1:C:3326:LEU:HA	1:C:3329:LYS:HB3	1.82	0.60
1:C:4187:GLU:OE2	1:C:4947:ARG:NH2	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:114:LEU:HB2	1:D:117:HIS:CE1	2.37	0.60
1:A:1722:ASN:O	1:A:1919:ARG:NH2	2.33	0.60
1:A:1760:ARG:HE	1:A:1762:GLN:HE22	1.48	0.60
1:A:3164:GLY:CA	1:A:3243:CYS:O	2.48	0.60
1:A:4707:MET:HG3	1:D:4252:ILE:HG21	1.82	0.60
1:B:1760:ARG:HE	1:B:1762:GLN:HE22	1.48	0.60
1:B:2999:LYS:HA	1:B:3002:GLU:HG3	1.82	0.60
1:C:988:LEU:HB2	1:C:1055:ARG:HH21	1.67	0.60
1:D:3164:GLY:N	1:D:3241:MET:O	2.34	0.60
1:A:114:LEU:HB2	1:A:117:HIS:CE1	2.37	0.60
1:A:670:TYR:O	1:A:673:TRP:NE1	2.35	0.60
1:A:952:ILE:HA	1:A:1062:TYR:HA	1.82	0.60
1:C:1042:THR:O	1:C:1046:ASN:ND2	2.32	0.60
1:C:1979:PHE:HE1	1:C:1988:CYS:HB3	1.65	0.60
1:C:2732:TRP:CD1	1:C:2736:LYS:HE3	2.36	0.60
1:C:3295:TRP:HA	1:C:3298:ARG:CG	2.30	0.60
1:C:3313:GLN:HA	1:C:3316:LYS:HG2	1.82	0.60
1:D:3118:GLY:O	1:D:3122:ILE:HG12	2.01	0.60
1:D:3161:ALA:O	1:D:3166:PHE:HB2	2.01	0.60
1:B:114:LEU:HB2	1:B:117:HIS:CE1	2.37	0.60
1:B:992:GLN:HE22	1:B:1064:LEU:HD11	1.66	0.60
1:B:2730:ASP:O	1:B:2734:MET:HG3	2.01	0.60
1:B:3108:LEU:HD12	1:B:3111:HIS:CE1	2.28	0.60
1:B:3163:ALA:C	1:B:3246:MET:H	2.09	0.60
1:D:1007:TRP:NE1	1:D:1011:ARG:HE	1.98	0.60
1:D:3891:TYR:O	1:D:3895:LYS:NZ	2.34	0.60
1:A:34:LYS:H	1:A:53:SER:HB3	1.66	0.60
1:A:992:GLN:HA	1:A:995:MET:HE3	1.84	0.60
1:A:3295:TRP:HA	1:A:3298:ARG:CG	2.30	0.60
1:A:4144:ARG:HB3	1:A:4961:GLN:HE22	1.65	0.60
1:B:3319:PHE:HD2	1:B:3323:MET:CE	2.15	0.60
1:C:1007:TRP:NE1	1:C:1011:ARG:HE	1.99	0.60
1:C:2729:HIS:CD2	1:C:2763:LEU:HD11	2.36	0.60
1:C:3306:ILE:O	1:C:3310:VAL:HG23	2.02	0.60
1:C:3319:PHE:HD2	1:C:3323:MET:CE	2.15	0.60
1:C:4045:LYS:H	1:C:4076:GLU:HB3	1.67	0.60
1:D:670:TYR:O	1:D:673:TRP:NE1	2.35	0.60
1:A:2732:TRP:CD1	1:A:2736:LYS:HE3	2.36	0.60
1:A:3161:ALA:O	1:A:3166:PHE:HB2	2.01	0.60
1:A:3163:ALA:C	1:A:3246:MET:H	2.09	0.60
1:A:3164:GLY:N	1:A:3241:MET:O	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3306:ILE:O	1:A:3310:VAL:HG23	2.02	0.60
1:B:3008:PHE:HE1	1:B:3104:MET:HE2	1.67	0.60
1:B:3163:ALA:N	1:B:3245:TYR:H	1.99	0.60
1:C:3161:ALA:O	1:C:3166:PHE:HB2	2.01	0.60
1:C:3982:LEU:HD22	1:C:3999:MET:HE2	1.82	0.60
1:D:874:LEU:HD12	1:D:875:PRO:HD2	1.84	0.60
1:D:3159:LEU:HA	1:D:3162:PHE:CD2	2.35	0.60
1:D:4040:LYS:NZ	1:D:4042:VAL:O	2.35	0.60
1:A:988:LEU:HB2	1:A:1055:ARG:HH21	1.67	0.60
1:A:3891:TYR:O	1:A:3895:LYS:NZ	2.34	0.60
1:A:4011:GLU:HG3	1:A:4015:LYS:NZ	2.17	0.60
1:C:3298:ARG:NH1	3:K:132:ASP:O	2.35	0.60
1:C:4011:GLU:HG3	1:C:4015:LYS:NZ	2.17	0.60
1:D:992:GLN:HA	1:D:995:MET:HE3	1.84	0.60
1:D:2732:TRP:CD1	1:D:2736:LYS:HE3	2.36	0.60
1:D:3163:ALA:C	1:D:3246:MET:H	2.09	0.60
1:D:3326:LEU:HA	1:D:3329:LYS:HB3	1.82	0.60
1:A:235:ARG:NH2	1:A:412:GLU:OE1	2.34	0.60
1:B:235:ARG:NH2	1:B:412:GLU:OE1	2.34	0.60
1:C:670:TYR:O	1:C:673:TRP:NE1	2.35	0.60
1:C:952:ILE:HA	1:C:1062:TYR:HA	1.82	0.60
1:C:3118:GLY:O	1:C:3122:ILE:HG12	2.01	0.60
1:C:4040:LYS:NZ	1:C:4042:VAL:O	2.35	0.60
1:D:988:LEU:HB2	1:D:1055:ARG:HH21	1.67	0.60
1:D:2055:SER:O	1:D:2060:GLN:NE2	2.34	0.60
1:D:3319:PHE:HD2	1:D:3323:MET:CE	2.15	0.60
1:D:3925:GLN:HE21	1:D:4934:THR:HA	1.67	0.60
1:D:4011:GLU:HG3	1:D:4015:LYS:NZ	2.17	0.60
1:B:1414:ARG:NH1	1:B:1415:ASP:O	2.34	0.60
1:B:4144:ARG:HB3	1:B:4961:GLN:HE22	1.66	0.60
1:C:3163:ALA:C	1:C:3246:MET:H	2.09	0.60
1:D:2730:ASP:O	1:D:2734:MET:HG3	2.01	0.60
1:A:3925:GLN:HE21	1:A:4934:THR:HA	1.67	0.59
1:B:605:GLY:HA2	1:B:1585:ARG:HD2	1.83	0.59
1:C:3891:TYR:O	1:C:3895:LYS:NZ	2.34	0.59
1:A:874:LEU:HD12	1:A:875:PRO:HD2	1.84	0.59
1:A:1414:ARG:NH1	1:A:1415:ASP:O	2.34	0.59
1:B:4045:LYS:H	1:B:4076:GLU:HB3	1.67	0.59
1:C:2172:MET:HE1	1:C:2217:HIS:CE1	2.37	0.59
1:C:3163:ALA:N	1:C:3245:TYR:H	1.99	0.59
1:B:670:TYR:O	1:B:673:TRP:NE1	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4011:GLU:HG3	1:B:4015:LYS:NZ	2.17	0.59
1:C:1414:ARG:NH1	1:C:1415:ASP:O	2.34	0.59
1:C:2773:TRP:HB3	1:C:2774:PRO:HD3	1.84	0.59
1:D:1035:TYR:O	1:D:1043:LYS:NZ	2.25	0.59
1:D:2773:TRP:HB3	1:D:2774:PRO:HD3	1.84	0.59
1:B:3173:THR:HA	1:B:3176:ASP:HB2	1.85	0.59
1:B:3891:TYR:O	1:B:3895:LYS:NZ	2.34	0.59
1:C:34:LYS:H	1:C:53:SER:HB3	1.65	0.59
1:C:1436:GLN:O	1:C:1500:ARG:NH2	2.36	0.59
1:D:3148:VAL:HA	1:D:3151:GLN:HG2	1.85	0.59
1:A:2905:ARG:HH11	1:A:2906:GLY:H	1.51	0.59
1:A:3173:THR:HA	1:A:3176:ASP:HB2	1.85	0.59
1:A:4829:ASP:OD1	1:D:4822:ARG:NH1	2.36	0.59
1:B:2055:SER:O	1:B:2060:GLN:NE2	2.34	0.59
1:B:3148:VAL:HA	1:B:3151:GLN:HG2	1.85	0.59
1:B:3313:GLN:HA	1:B:3316:LYS:HG2	1.82	0.59
1:B:3925:GLN:HE21	1:B:4934:THR:HA	1.67	0.59
1:C:3164:GLY:C	1:C:3247:SER:H	2.11	0.59
1:C:3165:ALA:C	1:C:3248:ARG:HB2	2.28	0.59
1:D:3008:PHE:HE1	1:D:3104:MET:HE2	1.67	0.59
1:A:2773:TRP:HB3	1:A:2774:PRO:HD3	1.84	0.59
1:B:2773:TRP:HB3	1:B:2774:PRO:HD3	1.84	0.59
1:B:3164:GLY:C	1:B:3247:SER:H	2.11	0.59
1:C:874:LEU:HD12	1:C:875:PRO:HD2	1.84	0.59
1:C:3148:VAL:HA	1:C:3151:GLN:HG2	1.85	0.59
1:D:992:GLN:HE22	1:D:1064:LEU:HD11	1.66	0.59
1:D:2172:MET:HE1	1:D:2217:HIS:CE1	2.37	0.59
1:B:874:LEU:HD12	1:B:875:PRO:HD2	1.84	0.59
1:B:3165:ALA:C	1:B:3248:ARG:HB2	2.28	0.59
1:B:3295:TRP:HA	1:B:3298:ARG:CG	2.31	0.59
1:C:2831:VAL:HG22	1:D:1435:GLY:HA2	1.84	0.59
1:C:3108:LEU:HD12	1:C:3111:HIS:CE1	2.28	0.59
1:A:2172:MET:HE1	1:A:2217:HIS:CE1	2.37	0.59
1:A:3148:VAL:HA	1:A:3151:GLN:HG2	1.85	0.59
1:A:3164:GLY:C	1:A:3247:SER:H	2.11	0.59
1:A:3166:PHE:CD1	1:A:3167:PRO:HD2	2.38	0.59
1:B:3166:PHE:CD1	1:B:3167:PRO:HD2	2.38	0.59
1:D:1436:GLN:O	1:D:1500:ARG:NH2	2.36	0.59
1:A:3008:PHE:HE1	1:A:3104:MET:HE2	1.67	0.59
1:A:4040:LYS:NZ	1:A:4042:VAL:O	2.35	0.59
1:B:988:LEU:HB2	1:B:1055:ARG:HH21	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1436:GLN:O	1:B:1500:ARG:NH2	2.36	0.59
1:B:2905:ARG:HH11	1:B:2906:GLY:H	1.51	0.59
1:C:992:GLN:HA	1:C:995:MET:HE3	1.84	0.59
1:C:3173:THR:HA	1:C:3176:ASP:HB2	1.85	0.59
1:D:3163:ALA:N	1:D:3245:TYR:H	1.99	0.59
1:D:3173:THR:HA	1:D:3176:ASP:HB2	1.85	0.59
1:D:3306:ILE:O	1:D:3310:VAL:HG23	2.02	0.59
1:D:3591:LEU:HD21	3:L:86:ILE:HG12	1.85	0.59
1:A:23:GLN:NE2	1:A:36:CYS:SG	2.76	0.59
1:A:1989:PRO:HD2	1:A:1992:ILE:HD12	1.85	0.59
1:A:2545:ILE:HG12	1:A:2580:LEU:HD21	1.84	0.59
1:A:2836:ASP:O	1:A:2840:MET:HG2	2.03	0.59
1:B:4040:LYS:NZ	1:B:4042:VAL:O	2.35	0.59
1:D:2734:MET:HE1	1:D:2825:ALA:N	2.18	0.59
1:D:3164:GLY:C	1:D:3247:SER:H	2.11	0.59
1:A:3319:PHE:HD2	1:A:3323:MET:CE	2.15	0.58
2:G:76:THR:HG23	2:G:99:ILE:HG13	1.85	0.58
1:B:4187:GLU:OE2	1:B:4947:ARG:NH2	2.32	0.58
1:C:3008:PHE:CE1	1:C:3104:MET:HE2	2.38	0.58
1:C:3165:ALA:CA	1:C:3248:ARG:N	2.66	0.58
1:C:3166:PHE:CD1	1:C:3167:PRO:HD2	2.38	0.58
1:D:34:LYS:H	1:D:53:SER:HB3	1.66	0.58
1:D:3165:ALA:CA	1:D:3248:ARG:N	2.66	0.58
1:B:2172:MET:HE1	1:B:2217:HIS:CE1	2.37	0.58
1:B:2651:ALA:O	1:B:2655:LYS:HB2	2.03	0.58
1:B:2734:MET:HE1	1:B:2825:ALA:N	2.18	0.58
1:B:2836:ASP:O	1:B:2840:MET:HG2	2.03	0.58
1:C:605:GLY:HA2	1:C:1585:ARG:HD2	1.83	0.58
1:C:2734:MET:HE1	1:C:2825:ALA:N	2.18	0.58
1:C:2836:ASP:O	1:C:2840:MET:HG2	2.03	0.58
1:D:3008:PHE:CE1	1:D:3104:MET:HE2	2.38	0.58
1:D:4045:LYS:H	1:D:4076:GLU:HB3	1.67	0.58
1:A:1436:GLN:O	1:A:1500:ARG:NH2	2.36	0.58
1:A:2730:ASP:O	1:A:2734:MET:HG3	2.01	0.58
1:A:4056:LYS:HE3	1:B:4660:PHE:HA	1.85	0.58
1:B:23:GLN:NE2	1:B:36:CYS:SG	2.76	0.58
1:B:3319:PHE:HD2	1:B:3323:MET:HE3	1.69	0.58
1:C:23:GLN:NE2	1:C:36:CYS:SG	2.76	0.58
1:C:2651:ALA:O	1:C:2655:LYS:HB2	2.03	0.58
1:D:23:GLN:NE2	1:D:36:CYS:SG	2.76	0.58
1:D:3165:ALA:C	1:D:3248:ARG:HB2	2.28	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2935:GLU:HB2	1:A:2938:GLN:HE21	1.69	0.58
1:B:992:GLN:HA	1:B:995:MET:HE3	1.84	0.58
1:B:2545:ILE:HG12	1:B:2580:LEU:HD21	1.84	0.58
1:B:3306:ILE:O	1:B:3310:VAL:HG23	2.02	0.58
1:D:2935:GLU:HB2	1:D:2938:GLN:HE21	1.69	0.58
1:D:4082:GLU:OE1	1:D:4086:ARG:NE	2.35	0.58
1:A:2651:ALA:O	1:A:2655:LYS:HB2	2.03	0.58
1:A:3165:ALA:C	1:A:3248:ARG:HB2	2.28	0.58
1:C:1979:PHE:CD1	1:C:1993:ARG:HG2	2.39	0.58
1:C:4102:LEU:HD21	1:C:4118:PHE:HE2	1.69	0.58
1:D:2651:ALA:O	1:D:2655:LYS:HB2	2.03	0.58
1:D:3166:PHE:CD1	1:D:3167:PRO:HD2	2.38	0.58
1:A:1041:ARG:HA	1:A:1044:LYS:NZ	2.19	0.58
1:A:4045:LYS:H	1:A:4076:GLU:HB3	1.67	0.58
2:H:83:TYR:HB3	2:H:87:GLY:HA2	1.86	0.58
1:B:3008:PHE:CE1	1:B:3104:MET:HE2	2.38	0.58
1:B:4277:LYS:HE3	1:B:4277:LYS:HA	1.85	0.58
1:C:3163:ALA:CA	1:C:3245:TYR:N	2.62	0.58
1:C:3164:GLY:C	1:C:3243:CYS:O	2.47	0.58
1:C:3925:GLN:HE21	1:C:4934:THR:HA	1.67	0.58
1:A:2734:MET:HE1	1:A:2825:ALA:N	2.18	0.58
1:A:3008:PHE:CE1	1:A:3104:MET:HE2	2.38	0.58
1:A:3058:ARG:CZ	1:A:3126:VAL:HB	2.33	0.58
1:A:3165:ALA:CA	1:A:3248:ARG:N	2.66	0.58
2:E:83:TYR:HB3	2:E:87:GLY:HA2	1.86	0.58
2:F:76:THR:HG23	2:F:99:ILE:HG13	1.85	0.58
2:F:83:TYR:HB3	2:F:87:GLY:HA2	1.86	0.58
1:B:307:SER:HB3	1:B:327:THR:HG22	1.86	0.58
1:B:3890:TRP:HB3	1:C:76:ARG:HG2	1.85	0.58
1:D:2545:ILE:HG12	1:D:2580:LEU:HD21	1.84	0.58
1:D:3058:ARG:CZ	1:D:3126:VAL:HB	2.33	0.58
1:D:3164:GLY:C	1:D:3243:CYS:O	2.47	0.58
1:A:1979:PHE:CD1	1:A:1993:ARG:HG2	2.39	0.58
1:A:2757:MET:HA	1:A:2757:MET:HE2	1.85	0.58
1:A:4270:LYS:NZ	1:A:4274:MET:HE1	2.19	0.58
1:B:2874:TYR:HA	1:B:2877:LEU:HD12	1.86	0.58
1:C:2119:LEU:HB2	1:C:2152:ASN:HD22	1.69	0.58
1:C:2545:ILE:HG12	1:C:2580:LEU:HD21	1.84	0.58
1:D:4277:LYS:HA	1:D:4277:LYS:HE3	1.85	0.58
1:A:2119:LEU:HB2	1:A:2152:ASN:HD22	1.69	0.58
1:A:3164:GLY:C	1:A:3243:CYS:O	2.47	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4082:GLU:OE1	1:A:4086:ARG:NE	2.35	0.58
2:G:83:TYR:HB3	2:G:87:GLY:HA2	1.86	0.58
1:B:1979:PHE:CD1	1:B:1993:ARG:HG2	2.39	0.58
1:C:2874:TYR:HA	1:C:2877:LEU:HD12	1.86	0.58
1:C:3183:ILE:HG13	1:C:3187:LYS:NZ	2.19	0.58
1:D:1989:PRO:HD2	1:D:1992:ILE:HD12	1.85	0.58
1:D:3298:ARG:NH2	3:L:133:GLY:C	2.61	0.58
1:D:4270:LYS:NZ	1:D:4274:MET:HE1	2.19	0.58
1:B:2757:MET:HE2	1:B:2757:MET:HA	1.85	0.58
1:B:4102:LEU:HD21	1:B:4118:PHE:HE2	1.68	0.58
1:C:307:SER:HB3	1:C:327:THR:HG22	1.86	0.58
1:C:514:PHE:HD2	1:C:526:TRP:HB2	1.69	0.58
1:D:514:PHE:HD2	1:D:526:TRP:HB2	1.69	0.58
1:D:1041:ARG:HA	1:D:1044:LYS:NZ	2.19	0.58
1:D:3183:ILE:HG13	1:D:3187:LYS:NZ	2.19	0.58
1:D:3252:HIS:CE1	1:D:3260:ARG:HH12	2.22	0.58
1:D:4102:LEU:HD21	1:D:4118:PHE:HE2	1.69	0.58
1:A:2232:PRO:HG3	1:A:2382:ILE:HD11	1.86	0.57
1:A:4102:LEU:HD21	1:A:4118:PHE:HE2	1.69	0.57
1:B:3058:ARG:CZ	1:B:3126:VAL:HB	2.33	0.57
1:B:3140:LEU:HB3	1:B:3155:LEU:HD21	1.86	0.57
1:C:3252:HIS:CE1	1:C:3260:ARG:HH12	2.22	0.57
1:C:3284:ILE:HA	1:C:3287:ASN:HB2	1.86	0.57
1:C:3319:PHE:HD2	1:C:3323:MET:HE3	1.69	0.57
1:D:3319:PHE:HD2	1:D:3323:MET:HE3	1.69	0.57
3:J:142:PHE:HA	3:J:145:MET:HE2	1.86	0.57
1:A:307:SER:HB3	1:A:327:THR:HG22	1.86	0.57
1:B:514:PHE:HD2	1:B:526:TRP:HB2	1.69	0.57
1:B:3587:TRP:CD2	3:J:145:MET:HE3	2.39	0.57
1:C:1269:GLU:HB2	1:C:1288:LYS:HE3	1.87	0.57
1:C:2757:MET:HE2	1:C:2757:MET:HA	1.85	0.57
1:D:2119:LEU:HB2	1:D:2152:ASN:HD22	1.69	0.57
3:K:142:PHE:HA	3:K:145:MET:HE2	1.86	0.57
1:A:2055:SER:O	1:A:2060:GLN:NE2	2.34	0.57
1:A:2232:PRO:HG2	1:A:2380:ASP:HA	1.86	0.57
1:A:3183:ILE:HG13	1:A:3187:LYS:NZ	2.19	0.57
1:B:520:ARG:NH1	1:B:524:GLU:OE1	2.37	0.57
1:B:1269:GLU:HB2	1:B:1288:LYS:HE3	1.86	0.57
1:B:2935:GLU:HB2	1:B:2938:GLN:HE21	1.69	0.57
1:C:2232:PRO:HG2	1:C:2380:ASP:HA	1.86	0.57
1:C:3058:ARG:CZ	1:C:3126:VAL:HB	2.33	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3140:LEU:HB3	1:C:3155:LEU:HD21	1.86	0.57
1:C:4082:GLU:OE1	1:C:4086:ARG:NE	2.35	0.57
1:C:4277:LYS:HA	1:C:4277:LYS:HE3	1.85	0.57
1:B:3163:ALA:CA	1:B:3245:TYR:N	2.61	0.57
1:B:3164:GLY:C	1:B:3243:CYS:O	2.47	0.57
1:C:520:ARG:NH1	1:C:524:GLU:OE1	2.37	0.57
1:C:1989:PRO:HD2	1:C:1992:ILE:HD12	1.85	0.57
1:C:4270:LYS:NZ	1:C:4274:MET:HE1	2.19	0.57
1:D:2836:ASP:O	1:D:2840:MET:HG2	2.03	0.57
1:D:2905:ARG:HH11	1:D:2906:GLY:H	1.51	0.57
3:L:142:PHE:HA	3:L:145:MET:HE2	1.86	0.57
1:A:1269:GLU:HB2	1:A:1288:LYS:HE3	1.86	0.57
2:F:20:GLY:HA2	2:F:53:LYS:HZ2	1.68	0.57
2:H:76:THR:HG23	2:H:99:ILE:HG13	1.85	0.57
1:B:3164:GLY:C	1:B:3247:SER:N	2.63	0.57
1:D:1979:PHE:CD1	1:D:1993:ARG:HG2	2.39	0.57
1:A:3661:VAL:HG23	1:A:3666:GLN:HG2	1.87	0.57
1:A:3803:LEU:HD22	1:A:3888:PHE:HE2	1.70	0.57
1:B:1041:ARG:HA	1:B:1044:LYS:NZ	2.19	0.57
1:B:1989:PRO:HD2	1:B:1992:ILE:HD12	1.85	0.57
1:B:2232:PRO:HG3	1:B:2382:ILE:HD11	1.86	0.57
1:C:2935:GLU:HB2	1:C:2938:GLN:HE21	1.69	0.57
1:D:1269:GLU:HB2	1:D:1288:LYS:HE3	1.86	0.57
1:D:2232:PRO:HG2	1:D:2380:ASP:HA	1.86	0.57
1:C:1035:TYR:O	1:C:1043:LYS:NZ	2.25	0.57
1:C:1041:ARG:HA	1:C:1044:LYS:NZ	2.19	0.57
1:C:2005:THR:OG1	1:C:2010:GLU:OE1	2.23	0.57
1:C:3661:VAL:HG23	1:C:3666:GLN:HG2	1.87	0.57
1:D:3803:LEU:HD22	1:D:3888:PHE:HE2	1.70	0.57
1:D:4654:MET:HE3	1:D:4663:ARG:HE	1.69	0.57
1:A:15:ARG:HD3	1:A:110:HIS:HB3	1.87	0.57
1:A:2980:LEU:HD21	1:A:2989:PRO:HB2	1.87	0.57
1:A:4694:LEU:HD22	1:D:4268:MET:HE2	1.87	0.57
1:B:2119:LEU:HB2	1:B:2152:ASN:HD22	1.69	0.57
1:B:4270:LYS:NZ	1:B:4274:MET:HE1	2.19	0.57
1:C:2550:HIS:CE1	1:C:2875:ASP:HB3	2.40	0.57
1:D:307:SER:HB3	1:D:327:THR:HG22	1.86	0.57
1:D:520:ARG:NH1	1:D:524:GLU:OE1	2.37	0.57
1:D:2757:MET:HE2	1:D:2757:MET:HA	1.85	0.57
1:D:3164:GLY:C	1:D:3247:SER:N	2.63	0.57
2:E:76:THR:HG23	2:E:99:ILE:HG13	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:52:THR:HG22	1:B:60:PRO:HB3	1.86	0.57
1:B:2980:LEU:HD21	1:B:2989:PRO:HB2	1.87	0.57
1:B:3163:ALA:HB3	1:B:3241:MET:C	2.30	0.57
1:B:3183:ILE:HG13	1:B:3187:LYS:NZ	2.19	0.57
1:B:3284:ILE:HA	1:B:3287:ASN:HB2	1.86	0.57
1:C:2232:PRO:HG3	1:C:2382:ILE:HD11	1.86	0.57
1:C:3008:PHE:HE1	1:C:3104:MET:HE2	1.67	0.57
1:C:3163:ALA:HB3	1:C:3241:MET:C	2.30	0.57
1:C:3164:GLY:C	1:C:3247:SER:N	2.63	0.57
1:C:3164:GLY:CA	1:C:3242:LEU:O	2.53	0.57
1:C:3803:LEU:HD22	1:C:3888:PHE:HE2	1.70	0.57
1:D:3108:LEU:HD12	1:D:3111:HIS:CE1	2.28	0.57
1:D:3661:VAL:HG23	1:D:3666:GLN:HG2	1.87	0.57
1:A:3140:LEU:HB3	1:A:3155:LEU:HD21	1.86	0.57
1:A:3163:ALA:HB3	1:A:3241:MET:C	2.30	0.57
1:B:3252:HIS:CE1	1:B:3260:ARG:HH12	2.22	0.57
1:B:3661:VAL:HG23	1:B:3666:GLN:HG2	1.87	0.57
1:C:3164:GLY:H	1:C:3244:SER:CA	2.18	0.57
1:D:3602:CYS:HB2	3:L:76:LYS:HG3	1.87	0.57
1:A:988:LEU:HB2	1:A:1055:ARG:HE	1.70	0.56
1:A:1471:ASP:OD1	1:A:1475:LYS:N	2.38	0.56
1:A:3252:HIS:CE1	1:A:3260:ARG:HH12	2.22	0.56
1:A:3319:PHE:HD2	1:A:3323:MET:HE3	1.69	0.56
1:A:4277:LYS:HA	1:A:4277:LYS:HE3	1.85	0.56
1:B:3697:LYS:HA	1:B:3700:HIS:CD2	2.40	0.56
1:C:2905:ARG:HH11	1:C:2906:GLY:H	1.51	0.56
1:D:807:ARG:NH1	1:D:807:ARG:HB2	2.21	0.56
1:D:1960:ARG:HA	1:D:1963:LYS:HB2	1.87	0.56
1:D:2550:HIS:CE1	1:D:2875:ASP:HB3	2.40	0.56
1:D:2874:TYR:HA	1:D:2877:LEU:HD12	1.86	0.56
1:D:3284:ILE:HA	1:D:3287:ASN:HB2	1.86	0.56
1:A:829:LYS:HZ1	1:A:1037:LEU:HD13	1.70	0.56
1:A:3298:ARG:HH12	3:I:133:GLY:HA3	1.70	0.56
3:I:142:PHE:HA	3:I:145:MET:HE2	1.86	0.56
1:B:1471:ASP:OD1	1:B:1475:LYS:N	2.39	0.56
1:B:3164:GLY:CA	1:B:3242:LEU:O	2.53	0.56
1:B:4270:LYS:HZ3	1:B:4274:MET:HE1	1.70	0.56
1:C:1960:ARG:HA	1:C:1963:LYS:HB2	1.87	0.56
1:D:587:ASN:HD21	1:D:2133:ARG:HD2	1.70	0.56
1:A:520:ARG:NH1	1:A:524:GLU:OE1	2.37	0.56
1:A:2830:ASN:ND2	1:B:1434:PRO:O	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3284:ILE:HA	1:A:3287:ASN:HB2	1.86	0.56
1:A:3697:LYS:HA	1:A:3700:HIS:CD2	2.40	0.56
1:A:4654:MET:HE3	1:A:4663:ARG:HE	1.69	0.56
1:B:587:ASN:HD21	1:B:2133:ARG:HD2	1.70	0.56
1:B:807:ARG:NH1	1:B:807:ARG:HB2	2.21	0.56
1:B:2232:PRO:HG2	1:B:2380:ASP:HA	1.86	0.56
1:B:2550:HIS:CE1	1:B:2875:ASP:HB3	2.40	0.56
1:B:3164:GLY:H	1:B:3244:SER:CA	2.18	0.56
1:B:3803:LEU:HD22	1:B:3888:PHE:HE2	1.70	0.56
1:B:4518:LEU:O	1:C:4809:MET:HB3	2.05	0.56
1:B:4654:MET:HE3	1:B:4663:ARG:HE	1.70	0.56
1:C:1100:ARG:HH12	1:C:1235:GLY:HA3	1.71	0.56
1:C:1559:ARG:HD2	1:C:1565:PRO:HD3	1.87	0.56
1:C:3113:GLY:HA2	1:C:3248:ARG:HH22	1.71	0.56
1:D:2232:PRO:HG3	1:D:2382:ILE:HD11	1.86	0.56
1:D:3124:GLU:C	1:D:3126:VAL:H	2.13	0.56
1:D:3140:LEU:HB3	1:D:3155:LEU:HD21	1.86	0.56
1:A:52:THR:HG22	1:A:60:PRO:HB3	1.86	0.56
1:B:988:LEU:HB2	1:B:1055:ARG:HE	1.70	0.56
1:B:3298:ARG:NH1	3:J:132:ASP:O	2.39	0.56
1:C:587:ASN:HD21	1:C:2133:ARG:HD2	1.70	0.56
1:D:3697:LYS:HA	1:D:3700:HIS:CD2	2.40	0.56
1:A:2550:HIS:CE1	1:A:2875:ASP:HB3	2.40	0.56
2:E:58:LYS:NZ	2:E:81:VAL:HA	2.21	0.56
1:B:4268:MET:CE	1:C:4694:LEU:HD13	2.36	0.56
1:D:3164:GLY:H	1:D:3244:SER:CA	2.18	0.56
1:D:3166:PHE:C	1:D:3248:ARG:HE	2.14	0.56
1:B:1100:ARG:HH12	1:B:1235:GLY:HA3	1.71	0.56
1:B:2627:TRP:HB2	1:B:2630:PHE:HB2	1.87	0.56
1:B:3245:TYR:CD1	1:B:3249:TRP:CZ3	2.94	0.56
1:C:3166:PHE:C	1:C:3248:ARG:HE	2.14	0.56
1:D:988:LEU:HB2	1:D:1055:ARG:HE	1.70	0.56
1:D:3163:ALA:HB3	1:D:3241:MET:C	2.30	0.56
1:D:3166:PHE:CE2	1:D:3168:VAL:HG22	2.41	0.56
1:A:2005:THR:OG1	1:A:2010:GLU:OE1	2.23	0.56
1:B:1559:ARG:HD2	1:B:1565:PRO:HD3	1.87	0.56
1:B:3165:ALA:CA	1:B:3248:ARG:N	2.66	0.56
1:B:3166:PHE:C	1:B:3248:ARG:HE	2.14	0.56
1:C:1471:ASP:OD1	1:C:1475:LYS:N	2.38	0.56
1:C:2980:LEU:HD21	1:C:2989:PRO:HB2	1.87	0.56
1:D:15:ARG:HD3	1:D:110:HIS:HB3	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:52:THR:HG22	1:D:60:PRO:HB3	1.86	0.56
1:D:1100:ARG:HH12	1:D:1235:GLY:HA3	1.71	0.56
1:D:3797:MET:HE1	1:D:3870:ILE:HG23	1.87	0.56
1:A:2874:TYR:HA	1:A:2877:LEU:HD12	1.86	0.56
1:A:3164:GLY:CA	1:A:3242:LEU:O	2.53	0.56
1:B:3797:MET:HE1	1:B:3870:ILE:HG23	1.87	0.56
1:C:15:ARG:HD3	1:C:110:HIS:HB3	1.87	0.56
1:C:52:THR:HG22	1:C:60:PRO:HB3	1.86	0.56
1:C:876:PRO:HA	1:C:879:GLU:HG2	1.88	0.56
1:D:3245:TYR:CD1	1:D:3249:TRP:CZ3	2.94	0.56
1:A:807:ARG:NH1	1:A:807:ARG:HB2	2.20	0.56
1:A:876:PRO:HA	1:A:879:GLU:HG2	1.88	0.56
1:A:3164:GLY:C	1:A:3247:SER:N	2.63	0.56
2:F:58:LYS:NZ	2:F:81:VAL:HA	2.21	0.56
1:B:309:MET:HE2	1:B:309:MET:N	2.21	0.56
1:B:1287:GLN:HG2	1:B:1290:PHE:HB2	1.88	0.56
1:B:1960:ARG:HA	1:B:1963:LYS:HB2	1.87	0.56
1:C:4654:MET:HE3	1:C:4663:ARG:HE	1.70	0.56
1:D:1559:ARG:HD2	1:D:1565:PRO:HD3	1.87	0.56
1:A:1960:ARG:HA	1:A:1963:LYS:HB2	1.87	0.56
1:A:3164:GLY:H	1:A:3244:SER:CA	2.18	0.56
1:A:3245:TYR:CD1	1:A:3249:TRP:CZ3	2.94	0.56
2:H:58:LYS:NZ	2:H:81:VAL:HA	2.21	0.56
1:B:4082:GLU:OE1	1:B:4086:ARG:NE	2.35	0.56
1:C:807:ARG:HB2	1:C:807:ARG:NH1	2.21	0.56
1:C:3697:LYS:HA	1:C:3700:HIS:CD2	2.40	0.56
1:D:2980:LEU:HD21	1:D:2989:PRO:HB2	1.87	0.56
1:D:3162:PHE:O	1:D:3245:TYR:HB2	2.06	0.56
1:C:309:MET:HE2	1:C:309:MET:N	2.21	0.55
1:C:988:LEU:HB2	1:C:1055:ARG:HE	1.70	0.55
1:C:2187:ILE:HG13	1:C:2227:VAL:HG13	1.87	0.55
1:C:2713:ILE:HD13	1:C:2721:ILE:HD11	1.89	0.55
1:D:309:MET:HE2	1:D:309:MET:N	2.21	0.55
1:D:2187:ILE:HG13	1:D:2227:VAL:HG13	1.87	0.55
1:D:2627:TRP:HB2	1:D:2630:PHE:HB2	1.87	0.55
1:D:3291:ASP:O	1:D:3292:GLU:HG3	2.07	0.55
1:A:1100:ARG:HH12	1:A:1235:GLY:HA3	1.71	0.55
1:A:1559:ARG:HD2	1:A:1565:PRO:HD3	1.87	0.55
1:B:15:ARG:HD3	1:B:110:HIS:HB3	1.87	0.55
1:B:246:THR:HG21	1:B:267:VAL:HG11	1.89	0.55
1:B:555:LEU:HD11	1:B:578:VAL:HG11	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:876:PRO:HA	1:B:879:GLU:HG2	1.88	0.55
1:B:3113:GLY:HA2	1:B:3248:ARG:HH22	1.71	0.55
1:B:3162:PHE:O	1:B:3245:TYR:HB2	2.06	0.55
1:C:3245:TYR:CD1	1:C:3249:TRP:CZ3	2.94	0.55
1:A:4107:GLU:OE1	1:A:4149:TYR:OH	2.20	0.55
1:C:1287:GLN:HG2	1:C:1290:PHE:HB2	1.88	0.55
1:D:3164:GLY:CA	1:D:3242:LEU:O	2.53	0.55
1:D:3298:ARG:HH12	3:L:133:GLY:HA3	1.71	0.55
1:A:3166:PHE:C	1:A:3248:ARG:HE	2.14	0.55
1:B:548:CYS:HB3	1:B:582:SER:HB2	1.89	0.55
1:B:2713:ILE:HD13	1:B:2721:ILE:HD11	1.89	0.55
1:C:555:LEU:HD11	1:C:578:VAL:HG11	1.89	0.55
1:C:2627:TRP:HB2	1:C:2630:PHE:HB2	1.87	0.55
1:C:3162:PHE:O	1:C:3245:TYR:HB2	2.06	0.55
1:C:3729:ALA:HA	1:C:3732:HIS:CD2	2.42	0.55
1:D:876:PRO:HA	1:D:879:GLU:HG2	1.88	0.55
1:D:989:THR:OG1	1:D:992:GLN:HG2	2.07	0.55
1:D:1100:ARG:NH1	1:D:1234:GLU:O	2.40	0.55
1:A:587:ASN:HD21	1:A:2133:ARG:HD2	1.70	0.55
1:A:3166:PHE:CE2	1:A:3168:VAL:HG22	2.40	0.55
1:A:3729:ALA:HA	1:A:3732:HIS:CD2	2.42	0.55
1:B:2496:LEU:HD23	1:B:2520:LEU:HD13	1.89	0.55
1:C:2172:MET:SD	1:C:2214:MET:HE1	2.47	0.55
1:A:4832:GLU:O	1:A:4843:ARG:NH1	2.37	0.55
1:C:548:CYS:HB3	1:C:582:SER:HB2	1.89	0.55
1:C:3797:MET:HE1	1:C:3870:ILE:HG23	1.87	0.55
1:D:2245:ALA:HA	1:D:2248:MET:HE3	1.89	0.55
1:D:2713:ILE:HD13	1:D:2721:ILE:HD11	1.89	0.55
1:A:514:PHE:HD2	1:A:526:TRP:HB2	1.69	0.55
1:A:1494:MET:HG3	1:A:1494:MET:O	2.07	0.55
1:A:2377:GLU:OE1	1:A:2377:GLU:N	2.40	0.55
1:A:2627:TRP:HB2	1:A:2630:PHE:HB2	1.87	0.55
1:A:2979:ARG:HD2	1:A:3039:THR:HG22	1.89	0.55
1:A:3113:GLY:HA2	1:A:3248:ARG:HH22	1.71	0.55
1:A:3162:PHE:O	1:A:3245:TYR:HB2	2.06	0.55
1:B:3124:GLU:C	1:B:3126:VAL:H	2.13	0.55
1:C:3719:MET:HA	1:C:3719:MET:HE2	1.89	0.55
1:D:1471:ASP:OD1	1:D:1475:LYS:N	2.38	0.55
1:A:309:MET:N	1:A:309:MET:HE2	2.21	0.55
1:A:1229:ILE:O	1:A:1233:GLN:NE2	2.37	0.55
1:A:1287:GLN:HG2	1:A:1290:PHE:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2187:ILE:HG13	1:A:2227:VAL:HG13	1.87	0.55
1:A:3291:ASP:O	1:A:3292:GLU:HG3	2.07	0.55
1:A:3797:MET:HE1	1:A:3870:ILE:HG23	1.87	0.55
1:A:4803:ASP:OD2	1:A:4805:LYS:NZ	2.40	0.55
3:I:94:ASP:HB2	3:I:101:ILE:HG12	1.89	0.55
1:B:1494:MET:HG3	1:B:1494:MET:O	2.07	0.55
1:B:1898:LEU:HD23	1:B:1902:VAL:HG12	1.89	0.55
1:B:4010:VAL:HG11	1:B:4118:PHE:HZ	1.72	0.55
1:C:1494:MET:HG3	1:C:1494:MET:O	2.07	0.55
1:D:3729:ALA:HA	1:D:3732:HIS:CD2	2.42	0.55
1:D:4832:GLU:O	1:D:4843:ARG:NH1	2.37	0.55
3:J:94:ASP:HB2	3:J:101:ILE:HG12	1.89	0.55
1:A:1644:LEU:HD23	1:A:1651:LEU:HA	1.89	0.55
1:A:2245:ALA:HA	1:A:2248:MET:HE3	1.89	0.55
1:A:3124:GLU:C	1:A:3126:VAL:H	2.13	0.55
1:B:2244:ALA:O	1:B:2248:MET:HB2	2.07	0.55
1:B:4569:GLU:HB3	1:B:4570:PRO:HD3	1.89	0.55
1:C:2245:ALA:HA	1:C:2248:MET:HE3	1.89	0.55
1:D:246:THR:HG21	1:D:267:VAL:HG11	1.89	0.55
1:D:1494:MET:HG3	1:D:1494:MET:O	2.07	0.55
1:D:2496:LEU:HD23	1:D:2520:LEU:HD13	1.89	0.55
1:A:2496:LEU:HD23	1:A:2520:LEU:HD13	1.89	0.55
1:A:2713:ILE:HD13	1:A:2721:ILE:HD11	1.89	0.55
1:A:2931:ARG:O	1:A:2935:GLU:OE1	2.25	0.55
1:A:3288:LEU:HD12	1:A:3325:LYS:HE2	1.89	0.55
1:B:2005:THR:OG1	1:B:2010:GLU:OE1	2.23	0.55
1:B:2931:ARG:O	1:B:2935:GLU:OE1	2.25	0.55
1:B:3719:MET:HE2	1:B:3719:MET:HA	1.89	0.55
1:C:3163:ALA:N	1:C:3245:TYR:N	2.55	0.55
1:D:2589:LEU:O	1:D:2593:VAL:HG13	2.07	0.55
1:D:3122:ILE:HA	1:D:3126:VAL:HG11	1.89	0.55
1:D:3288:LEU:HD12	1:D:3325:LYS:HE2	1.89	0.55
1:A:548:CYS:HB3	1:A:582:SER:HB2	1.89	0.54
1:A:4056:LYS:HE3	1:B:4660:PHE:O	2.06	0.54
2:E:20:GLY:HA2	2:E:53:LYS:HZ2	1.72	0.54
1:B:989:THR:OG1	1:B:992:GLN:HG2	2.07	0.54
1:B:2172:MET:SD	1:B:2214:MET:HE1	2.47	0.54
1:B:3160:ALA:HA	1:B:3240:PRO:O	2.07	0.54
1:B:3729:ALA:HA	1:B:3732:HIS:CD2	2.42	0.54
1:C:1100:ARG:NH1	1:C:1234:GLU:O	2.40	0.54
1:C:1644:LEU:HD23	1:C:1651:LEU:HA	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1898:LEU:HD23	1:C:1902:VAL:HG12	1.89	0.54
1:C:2589:LEU:O	1:C:2593:VAL:HG13	2.07	0.54
1:D:2979:ARG:HD2	1:D:3039:THR:HG22	1.89	0.54
1:D:3163:ALA:N	1:D:3245:TYR:N	2.55	0.54
1:A:246:THR:HG21	1:A:267:VAL:HG11	1.89	0.54
1:A:930:ASN:O	1:A:934:GLN:OE1	2.25	0.54
1:A:3719:MET:HE2	1:A:3719:MET:HA	1.89	0.54
2:G:58:LYS:NZ	2:G:81:VAL:HA	2.21	0.54
1:B:2187:ILE:HG13	1:B:2227:VAL:HG13	1.87	0.54
1:B:2377:GLU:N	1:B:2377:GLU:OE1	2.40	0.54
1:B:2832:THR:HG21	1:C:1290:PHE:HE2	1.73	0.54
1:B:3122:ILE:HA	1:B:3126:VAL:HG11	1.89	0.54
1:C:2244:ALA:O	1:C:2248:MET:HB2	2.07	0.54
1:D:1287:GLN:HG2	1:D:1290:PHE:HB2	1.88	0.54
1:D:3113:GLY:HA2	1:D:3248:ARG:HH22	1.71	0.54
1:D:4521:LYS:HB3	1:D:4562:GLU:OE1	2.08	0.54
3:L:87:ARG:HG2	3:L:91:ARG:HH21	1.73	0.54
1:A:2172:MET:SD	1:A:2214:MET:HE1	2.47	0.54
1:A:3000:GLU:HG2	1:A:3003:MET:HE2	1.90	0.54
1:B:1719:LEU:HA	1:B:1722:ASN:ND2	2.23	0.54
1:B:1910:LEU:HD13	1:B:2062:ILE:HG12	1.89	0.54
1:B:4521:LYS:HB3	1:B:4562:GLU:OE1	2.08	0.54
1:C:930:ASN:O	1:C:934:GLN:OE1	2.25	0.54
1:C:989:THR:OG1	1:C:992:GLN:HG2	2.07	0.54
1:C:4010:VAL:HG11	1:C:4118:PHE:HZ	1.72	0.54
1:C:4569:GLU:HB3	1:C:4570:PRO:HD3	1.89	0.54
1:D:548:CYS:HB3	1:D:582:SER:HB2	1.89	0.54
1:D:2931:ARG:O	1:D:2935:GLU:OE1	2.25	0.54
1:D:3719:MET:HE2	1:D:3719:MET:HA	1.89	0.54
1:D:4010:VAL:HG11	1:D:4118:PHE:HZ	1.72	0.54
3:J:87:ARG:HG2	3:J:91:ARG:HH21	1.73	0.54
1:A:3122:ILE:HA	1:A:3126:VAL:HG11	1.89	0.54
1:A:4248:LEU:HD22	1:B:4711:GLY:HA2	1.89	0.54
3:I:87:ARG:HG2	3:I:91:ARG:HH21	1.73	0.54
1:B:1100:ARG:NH1	1:B:1234:GLU:O	2.40	0.54
1:C:894:VAL:O	1:C:898:ILE:HG12	2.08	0.54
1:C:2496:LEU:HD23	1:C:2520:LEU:HD13	1.89	0.54
1:C:3122:ILE:HA	1:C:3126:VAL:HG11	1.89	0.54
1:D:2377:GLU:OE1	1:D:2377:GLU:N	2.40	0.54
3:K:87:ARG:HG2	3:K:91:ARG:HH21	1.73	0.54
3:K:94:ASP:HB2	3:K:101:ILE:HG12	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2743:TYR:HE1	1:A:2758:LYS:HB3	1.73	0.54
1:B:2979:ARG:HD2	1:B:3039:THR:HG22	1.89	0.54
1:B:3285:TYR:CZ	1:B:3321:PRO:HB2	2.43	0.54
1:B:4803:ASP:OD2	1:B:4805:LYS:NZ	2.40	0.54
1:C:3124:GLU:C	1:C:3126:VAL:H	2.13	0.54
1:C:4832:GLU:O	1:C:4843:ARG:NH1	2.37	0.54
1:D:2172:MET:SD	1:D:2214:MET:HE1	2.47	0.54
1:A:3163:ALA:N	1:A:3245:TYR:N	2.55	0.54
1:A:3192:ARG:HD2	1:A:3197:LEU:CD1	2.37	0.54
1:A:4010:VAL:HG11	1:A:4118:PHE:HZ	1.72	0.54
1:A:4102:LEU:HD21	1:A:4118:PHE:CE2	2.43	0.54
1:B:2245:ALA:HA	1:B:2248:MET:HE3	1.89	0.54
1:C:3160:ALA:HA	1:C:3240:PRO:O	2.08	0.54
1:C:3285:TYR:CZ	1:C:3321:PRO:HB2	2.43	0.54
1:C:4102:LEU:HD21	1:C:4118:PHE:CE2	2.43	0.54
1:D:1719:LEU:HA	1:D:1722:ASN:ND2	2.23	0.54
3:L:94:ASP:HB2	3:L:101:ILE:HG12	1.89	0.54
1:A:989:THR:OG1	1:A:992:GLN:HG2	2.07	0.54
1:A:1100:ARG:NH1	1:A:1234:GLU:O	2.40	0.54
1:A:4569:GLU:HB3	1:A:4570:PRO:HD3	1.90	0.54
1:B:2743:TYR:HE1	1:B:2758:LYS:HB3	1.73	0.54
1:B:3000:GLU:HG2	1:B:3003:MET:HE2	1.90	0.54
1:B:3163:ALA:N	1:B:3245:TYR:N	2.55	0.54
1:C:307:SER:OG	1:C:309:MET:HE1	2.08	0.54
1:D:3000:GLU:HG2	1:D:3003:MET:HE2	1.90	0.54
1:D:3192:ARG:HD2	1:D:3197:LEU:CD1	2.37	0.54
1:D:4803:ASP:OD2	1:D:4805:LYS:NZ	2.40	0.54
1:A:1719:LEU:HA	1:A:1722:ASN:ND2	2.23	0.54
1:A:2589:LEU:O	1:A:2593:VAL:HG13	2.07	0.54
1:B:1432:ILE:HG12	1:B:1441:VAL:HG11	1.90	0.54
1:B:2828:MET:HE1	1:B:2895:PHE:CD1	2.38	0.54
1:B:3162:PHE:O	1:B:3245:TYR:CA	2.56	0.54
1:B:3287:ASN:O	1:B:3296:MET:HE1	2.07	0.54
1:C:2377:GLU:OE1	1:C:2377:GLU:N	2.40	0.54
1:C:4011:GLU:HG3	1:C:4015:LYS:HZ2	1.73	0.54
1:D:1644:LEU:HD23	1:D:1651:LEU:HA	1.89	0.54
1:D:3287:ASN:O	1:D:3296:MET:HE1	2.07	0.54
3:I:127:ARG:NH2	3:I:135:GLY:HA2	2.23	0.54
1:B:894:VAL:O	1:B:898:ILE:HG12	2.07	0.54
1:B:3192:ARG:HD2	1:B:3197:LEU:CD1	2.37	0.54
1:C:246:THR:HG21	1:C:267:VAL:HG11	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1719:LEU:HA	1:C:1722:ASN:ND2	2.23	0.54
1:C:1910:LEU:HD13	1:C:2062:ILE:HG12	1.89	0.54
1:C:2580:LEU:O	1:C:2616:ARG:NH2	2.37	0.54
1:C:3827:GLU:OE1	1:C:3827:GLU:N	2.37	0.54
1:A:3962:SER:HB3	1:A:4071:GLU:HG2	1.90	0.54
1:A:4521:LYS:HB3	1:A:4562:GLU:OE1	2.08	0.54
1:B:964:MET:SD	1:B:964:MET:N	2.81	0.54
1:B:2589:LEU:O	1:B:2593:VAL:HG13	2.07	0.54
1:B:4102:LEU:HD21	1:B:4118:PHE:CE2	2.43	0.54
1:C:1432:ILE:HG12	1:C:1441:VAL:HG11	1.90	0.54
1:C:2931:ARG:O	1:C:2935:GLU:OE1	2.25	0.54
1:C:3291:ASP:O	1:C:3292:GLU:HG3	2.07	0.54
1:D:987:LYS:HZ2	1:D:989:THR:HA	1.73	0.54
1:D:2244:ALA:O	1:D:2248:MET:HB2	2.07	0.54
1:A:307:SER:OG	1:A:309:MET:HE1	2.08	0.53
1:A:1667:LEU:HD13	1:A:2131:SER:HB3	1.91	0.53
1:A:3269:ASN:O	1:A:3272:HIS:N	2.42	0.53
1:B:4832:GLU:O	1:B:4843:ARG:NH1	2.37	0.53
1:C:3287:ASN:O	1:C:3296:MET:HE1	2.08	0.53
1:D:555:LEU:HD11	1:D:578:VAL:HG11	1.89	0.53
1:D:1432:ILE:HG12	1:D:1441:VAL:HG11	1.90	0.53
1:D:1910:LEU:HD13	1:D:2062:ILE:HG12	1.89	0.53
1:D:4102:LEU:HD21	1:D:4118:PHE:CE2	2.43	0.53
1:A:1910:LEU:HD13	1:A:2062:ILE:HG12	1.89	0.53
1:A:3287:ASN:O	1:A:3296:MET:HE1	2.07	0.53
3:I:88:GLU:OE1	3:I:91:ARG:NH1	2.41	0.53
1:B:1644:LEU:HD23	1:B:1651:LEU:HA	1.89	0.53
1:B:3827:GLU:OE1	1:B:3827:GLU:N	2.37	0.53
1:B:3962:SER:HB3	1:B:4071:GLU:HG2	1.90	0.53
1:C:3071:THR:HA	1:C:3074:ASN:HD21	1.74	0.53
1:D:307:SER:OG	1:D:309:MET:HE1	2.08	0.53
1:D:3940:LEU:HD11	1:D:3981:MET:HE1	1.90	0.53
1:D:4569:GLU:HB3	1:D:4570:PRO:HD3	1.89	0.53
1:A:1432:ILE:HG12	1:A:1441:VAL:HG11	1.90	0.53
1:A:3160:ALA:HA	1:A:3240:PRO:O	2.07	0.53
1:A:4276:VAL:HA	1:A:4279:MET:HG2	1.91	0.53
1:B:1667:LEU:HD13	1:B:2131:SER:HB3	1.91	0.53
1:B:3184:TYR:HE1	1:B:3192:ARG:NH2	2.06	0.53
1:C:4521:LYS:HB3	1:C:4562:GLU:OE1	2.08	0.53
1:C:4803:ASP:OD2	1:C:4805:LYS:NZ	2.40	0.53
3:J:130:ASP:HB3	3:J:133:GLY:HA2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:614:LEU:HD23	1:A:617:LEU:HD12	1.90	0.53
1:A:874:LEU:HD11	1:A:878:LEU:HD23	1.90	0.53
1:A:874:LEU:CD1	1:A:940:LEU:HD13	2.36	0.53
1:A:2244:ALA:O	1:A:2248:MET:HB2	2.07	0.53
1:A:3162:PHE:C	1:A:3245:TYR:N	2.67	0.53
1:B:3166:PHE:CE2	1:B:3168:VAL:HG22	2.40	0.53
1:B:3288:LEU:HD12	1:B:3325:LYS:HE2	1.89	0.53
1:B:3291:ASP:O	1:B:3292:GLU:HG3	2.07	0.53
1:B:3296:MET:HA	1:B:3299:LEU:HD12	1.91	0.53
1:C:3192:ARG:HD2	1:C:3197:LEU:CD1	2.38	0.53
1:C:3288:LEU:HD12	1:C:3325:LYS:HE2	1.89	0.53
1:D:2005:THR:OG1	1:D:2010:GLU:OE1	2.23	0.53
1:D:3827:GLU:OE1	1:D:3827:GLU:N	2.37	0.53
3:L:88:GLU:OE1	3:L:91:ARG:NH1	2.41	0.53
3:K:127:ARG:NH2	3:K:135:GLY:HA2	2.23	0.53
1:A:555:LEU:HD11	1:A:578:VAL:HG11	1.89	0.53
1:B:614:LEU:HD23	1:B:617:LEU:HD12	1.90	0.53
1:B:3071:THR:HA	1:B:3074:ASN:HD21	1.74	0.53
1:B:3269:ASN:O	1:B:3272:HIS:N	2.42	0.53
1:C:2979:ARG:HD2	1:C:3039:THR:HG22	1.89	0.53
1:C:3000:GLU:HG2	1:C:3003:MET:HE2	1.90	0.53
1:C:3162:PHE:C	1:C:3245:TYR:N	2.67	0.53
1:C:3184:TYR:HE1	1:C:3192:ARG:NH2	2.06	0.53
3:J:48:GLU:O	3:J:52:MET:HG3	2.09	0.53
3:K:88:GLU:OE1	3:K:91:ARG:NH1	2.41	0.53
1:A:894:VAL:O	1:A:898:ILE:HG12	2.08	0.53
1:A:1041:ARG:HA	1:A:1044:LYS:HZ2	1.74	0.53
1:A:3276:LEU:O	1:A:3280:ILE:HG23	2.09	0.53
2:H:20:GLY:HA2	2:H:53:LYS:HZ2	1.74	0.53
3:I:48:GLU:O	3:I:52:MET:HG3	2.09	0.53
1:B:874:LEU:CD1	1:B:940:LEU:HD13	2.36	0.53
1:C:874:LEU:HD11	1:C:878:LEU:HD23	1.90	0.53
1:C:1667:LEU:HD13	1:C:2131:SER:HB3	1.91	0.53
1:C:3162:PHE:O	1:C:3245:TYR:CA	2.56	0.53
1:D:1549:SER:OG	1:D:1551:ASN:O	2.27	0.53
1:D:1898:LEU:HD23	1:D:1902:VAL:HG12	1.89	0.53
1:D:3071:THR:HA	1:D:3074:ASN:HD21	1.74	0.53
1:A:2754:GLN:HG2	1:A:2756:LEU:H	1.74	0.53
1:A:3161:ALA:CA	1:A:3244:SER:HB3	2.38	0.53
1:A:4093:ASP:OD1	1:A:4094:ILE:N	2.42	0.53
2:G:83:TYR:OH	1:C:1768:PHE:O	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:307:SER:OG	1:B:309:MET:HE1	2.08	0.53
1:B:1495:SER:OG	1:B:1496:PRO:HD3	2.09	0.53
1:B:3940:LEU:HD11	1:B:3981:MET:HE1	1.90	0.53
1:D:2743:TYR:HE1	1:D:2758:LYS:HB3	1.73	0.53
1:D:3161:ALA:CA	1:D:3244:SER:HB3	2.38	0.53
1:D:3162:PHE:O	1:D:3245:TYR:CA	2.56	0.53
3:L:127:ARG:NH2	3:L:135:GLY:HA2	2.23	0.53
1:A:1170:GLU:OE1	1:A:1170:GLU:N	2.42	0.53
1:A:3296:MET:HA	1:A:3299:LEU:HD12	1.91	0.53
1:B:930:ASN:O	1:B:934:GLN:OE1	2.25	0.53
1:B:943:LEU:HA	1:B:946:LEU:HD12	1.91	0.53
1:C:1549:SER:OG	1:C:1551:ASN:O	2.26	0.53
1:D:894:VAL:O	1:D:898:ILE:HG12	2.08	0.53
1:D:930:ASN:O	1:D:934:GLN:OE1	2.25	0.53
1:D:1667:LEU:HD13	1:D:2131:SER:HB3	1.91	0.53
1:D:3269:ASN:O	1:D:3272:HIS:N	2.42	0.53
1:D:3285:TYR:CZ	1:D:3321:PRO:HB2	2.43	0.53
1:D:3910:ILE:HG21	1:D:3970:GLU:HB3	1.91	0.53
1:D:4042:VAL:HG12	1:D:4077:THR:HB	1.91	0.53
1:A:943:LEU:HD22	1:A:1057:LEU:HD21	1.91	0.53
1:A:2828:MET:HE1	1:A:2895:PHE:CD1	2.38	0.53
1:A:4042:VAL:HG12	1:A:4077:THR:HB	1.91	0.53
1:A:4252:ILE:HG21	1:B:4707:MET:HA	1.90	0.53
1:B:3163:ALA:O	1:B:3246:MET:HG2	2.09	0.53
1:C:842:GLN:HB2	1:C:1603:PHE:HB2	1.91	0.53
1:C:4042:VAL:HG12	1:C:4077:THR:HB	1.91	0.53
1:D:3163:ALA:O	1:D:3246:MET:HG2	2.09	0.53
3:J:88:GLU:OE1	3:J:91:ARG:NH1	2.41	0.53
3:K:48:GLU:O	3:K:52:MET:HG3	2.09	0.53
1:A:930:ASN:O	1:A:933:LEU:HG	2.09	0.53
3:I:130:ASP:HB3	3:I:133:GLY:HA2	1.91	0.53
1:B:2418:ARG:HH21	1:C:156:GLU:CD	2.17	0.53
1:B:3276:LEU:O	1:B:3280:ILE:HG23	2.09	0.53
1:B:3587:TRP:HB3	3:J:146:MET:SD	2.49	0.53
1:B:4042:VAL:HG12	1:B:4077:THR:HB	1.91	0.53
1:C:2743:TYR:HE1	1:C:2758:LYS:HB3	1.73	0.53
1:D:2754:GLN:HG2	1:D:2756:LEU:H	1.74	0.53
1:D:2849:HIS:NE2	1:D:2877:LEU:HD11	2.24	0.53
1:D:4276:VAL:HA	1:D:4279:MET:HG2	1.91	0.53
3:K:130:ASP:HB3	3:K:133:GLY:HA2	1.91	0.53
1:A:1495:SER:OG	1:A:1496:PRO:HD3	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:842:GLN:HB2	1:B:1603:PHE:HB2	1.91	0.52
1:B:1170:GLU:OE1	1:B:1170:GLU:N	2.42	0.52
1:C:874:LEU:CD1	1:C:940:LEU:HD13	2.36	0.52
1:C:930:ASN:O	1:C:933:LEU:HG	2.09	0.52
1:C:2828:MET:HE1	1:C:2895:PHE:CD1	2.38	0.52
1:D:614:LEU:HD23	1:D:617:LEU:HD12	1.90	0.52
1:D:3160:ALA:HA	1:D:3240:PRO:O	2.07	0.52
1:D:3160:ALA:HA	1:D:3241:MET:CA	2.39	0.52
3:J:127:ARG:NH2	3:J:135:GLY:HA2	2.23	0.52
1:A:3045:VAL:HG11	1:A:3121:LEU:HD12	1.91	0.52
1:A:3910:ILE:HG21	1:A:3970:GLU:HB3	1.91	0.52
1:B:874:LEU:HD11	1:B:878:LEU:HD23	1.90	0.52
1:B:3160:ALA:HA	1:B:3240:PRO:C	2.34	0.52
1:B:4793:TYR:HH	1:B:4816:HIS:HE2	1.57	0.52
1:C:3160:ALA:HA	1:C:3240:PRO:C	2.34	0.52
1:C:4093:ASP:OD1	1:C:4094:ILE:N	2.42	0.52
1:C:4862:ILE:HD13	1:D:4852:PHE:CE1	2.43	0.52
1:D:625:VAL:HG12	1:D:628:ASN:H	1.75	0.52
1:A:3600:VAL:HG21	3:I:37:MET:HG2	1.91	0.52
1:B:930:ASN:O	1:B:933:LEU:HG	2.09	0.52
1:B:3316:LYS:HA	1:B:3319:PHE:CE1	2.45	0.52
1:B:4056:LYS:HE3	1:C:4660:PHE:O	2.09	0.52
1:B:4276:VAL:HA	1:B:4279:MET:HG2	1.91	0.52
1:C:515:ALA:HB2	1:C:523:GLY:HA3	1.91	0.52
1:C:2754:GLN:HG2	1:C:2756:LEU:H	1.74	0.52
1:C:3045:VAL:HG11	1:C:3121:LEU:HD12	1.91	0.52
1:C:3163:ALA:O	1:C:3246:MET:HG2	2.09	0.52
1:C:3962:SER:HB3	1:C:4071:GLU:HG2	1.90	0.52
1:D:874:LEU:HD11	1:D:878:LEU:HD23	1.90	0.52
1:D:3162:PHE:C	1:D:3245:TYR:N	2.67	0.52
1:D:3184:TYR:HE1	1:D:3192:ARG:NH2	2.06	0.52
3:K:123:ASP:HA	3:K:126:ILE:HG22	1.91	0.52
1:A:3285:TYR:CZ	1:A:3321:PRO:HB2	2.43	0.52
1:A:3940:LEU:HD11	1:A:3981:MET:HE1	1.91	0.52
1:A:4268:MET:CE	1:B:4481:TRP:HZ2	2.21	0.52
1:B:3045:VAL:HG11	1:B:3121:LEU:HD12	1.91	0.52
1:B:3162:PHE:C	1:B:3245:TYR:N	2.67	0.52
1:C:3296:MET:HA	1:C:3299:LEU:HD12	1.91	0.52
1:C:4084:VAL:O	1:C:4088:HIS:CB	2.57	0.52
1:D:1170:GLU:OE1	1:D:1170:GLU:N	2.42	0.52
1:D:3276:LEU:O	1:D:3280:ILE:HG23	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:130:ASP:HB3	3:L:133:GLY:HA2	1.91	0.52
1:A:585:ALA:O	1:A:589:ILE:HG12	2.10	0.52
1:A:842:GLN:HB2	1:A:1603:PHE:HB2	1.91	0.52
1:A:2791:ARG:HD3	1:A:2795:GLY:HA3	1.91	0.52
1:A:2849:HIS:NE2	1:A:2877:LEU:HD11	2.24	0.52
1:A:3071:THR:HA	1:A:3074:ASN:HD21	1.74	0.52
1:A:3951:PHE:CD2	1:A:3975:GLN:HG2	2.45	0.52
1:B:874:LEU:HD11	1:B:878:LEU:HB3	1.92	0.52
1:B:2754:GLN:HG2	1:B:2756:LEU:H	1.74	0.52
1:C:585:ALA:O	1:C:589:ILE:HG12	2.10	0.52
1:C:1041:ARG:HA	1:C:1044:LYS:HZ2	1.74	0.52
1:C:1495:SER:OG	1:C:1496:PRO:HD3	2.09	0.52
1:C:3243:CYS:HB2	1:C:3302:PHE:HE2	1.75	0.52
1:C:3269:ASN:O	1:C:3272:HIS:N	2.42	0.52
1:C:3276:LEU:O	1:C:3280:ILE:HG23	2.09	0.52
3:J:123:ASP:HA	3:J:126:ILE:HG22	1.91	0.52
1:A:625:VAL:HG12	1:A:628:ASN:H	1.75	0.52
1:A:1549:SER:OG	1:A:1551:ASN:O	2.26	0.52
1:A:2979:ARG:HH12	1:A:2983:LEU:HD12	1.74	0.52
1:A:3162:PHE:O	1:A:3245:TYR:CA	2.56	0.52
1:A:3184:TYR:HE1	1:A:3192:ARG:NH2	2.06	0.52
1:A:3316:LYS:HA	1:A:3319:PHE:CE1	2.45	0.52
2:F:67:MET:HE1	2:F:102:VAL:HG12	1.91	0.52
1:B:3161:ALA:CA	1:B:3244:SER:HB3	2.38	0.52
1:D:874:LEU:CD1	1:D:940:LEU:HD13	2.36	0.52
1:D:943:LEU:HA	1:D:946:LEU:HD12	1.91	0.52
1:D:3243:CYS:HB2	1:D:3302:PHE:HE2	1.75	0.52
1:D:3803:LEU:HD13	1:D:3888:PHE:CD2	2.45	0.52
1:D:3951:PHE:CD2	1:D:3975:GLN:HG2	2.45	0.52
1:A:2789:ILE:HD11	1:A:2901:TYR:HB3	1.92	0.52
1:A:3163:ALA:O	1:A:3246:MET:HG2	2.09	0.52
1:A:3164:GLY:O	1:A:3247:SER:N	2.43	0.52
1:B:515:ALA:HB2	1:B:523:GLY:HA3	1.91	0.52
1:C:1170:GLU:N	1:C:1170:GLU:OE1	2.42	0.52
1:C:3940:LEU:HD11	1:C:3981:MET:HE1	1.91	0.52
1:C:3951:PHE:CD2	1:C:3975:GLN:HG2	2.45	0.52
1:D:930:ASN:O	1:D:933:LEU:HG	2.09	0.52
1:D:3962:SER:HB3	1:D:4071:GLU:HG2	1.90	0.52
1:D:4084:VAL:O	1:D:4088:HIS:CB	2.57	0.52
3:L:48:GLU:O	3:L:52:MET:HG3	2.09	0.52
2:G:67:MET:HE1	2:G:102:VAL:HG12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:123:ASP:HA	3:I:126:ILE:HG22	1.91	0.52
1:B:3160:ALA:HA	1:B:3241:MET:CA	2.39	0.52
1:C:943:LEU:HA	1:C:946:LEU:HD12	1.91	0.52
1:C:2849:HIS:NE2	1:C:2877:LEU:HD11	2.25	0.52
1:C:2979:ARG:HH12	1:C:2983:LEU:HD12	1.74	0.52
1:C:3161:ALA:CA	1:C:3244:SER:HB3	2.38	0.52
1:C:3164:GLY:O	1:C:3247:SER:N	2.43	0.52
1:C:3910:ILE:HG21	1:C:3970:GLU:HB3	1.91	0.52
1:D:842:GLN:HB2	1:D:1603:PHE:HB2	1.91	0.52
1:D:1041:ARG:HA	1:D:1044:LYS:HZ2	1.75	0.52
1:D:1495:SER:OG	1:D:1496:PRO:HD3	2.09	0.52
1:D:3016:ARG:HG2	1:D:3017:HIS:CD2	2.45	0.52
1:A:874:LEU:HD11	1:A:878:LEU:HB3	1.92	0.52
1:A:987:LYS:HZ3	1:A:989:THR:HA	1.74	0.52
1:A:1898:LEU:HD23	1:A:1902:VAL:HG12	1.89	0.52
1:A:3160:ALA:O	1:A:3244:SER:HB3	2.10	0.52
1:B:625:VAL:HG12	1:B:628:ASN:H	1.75	0.52
1:B:943:LEU:HD22	1:B:1057:LEU:HD21	1.91	0.52
1:B:1035:TYR:O	1:B:1043:LYS:NZ	2.25	0.52
1:C:3216:GLU:HA	1:C:3219:VAL:HG22	1.92	0.52
1:C:3316:LYS:HA	1:C:3319:PHE:CE1	2.44	0.52
1:C:3803:LEU:HD13	1:C:3888:PHE:CD2	2.45	0.52
1:D:2791:ARG:HD3	1:D:2795:GLY:HA3	1.91	0.52
1:D:4093:ASP:OD1	1:D:4094:ILE:N	2.42	0.52
1:D:4661:TYR:HB3	1:D:4665:ARG:HH21	1.75	0.52
1:A:515:ALA:HB2	1:A:523:GLY:HA3	1.91	0.52
1:A:3160:ALA:HA	1:A:3240:PRO:C	2.34	0.52
1:A:3245:TYR:CD2	1:A:3246:MET:HE2	2.45	0.52
1:A:3803:LEU:HD13	1:A:3888:PHE:CD2	2.45	0.52
2:H:67:MET:HE1	2:H:102:VAL:HG12	1.91	0.52
1:B:1041:ARG:HA	1:B:1044:LYS:HZ2	1.75	0.52
1:B:2789:ILE:HD11	1:B:2901:TYR:HB3	1.92	0.52
1:B:2849:HIS:NE2	1:B:2877:LEU:HD11	2.24	0.52
1:B:4084:VAL:O	1:B:4088:HIS:CB	2.57	0.52
1:C:874:LEU:HD11	1:C:878:LEU:HB3	1.92	0.52
1:C:3016:ARG:HG2	1:C:3017:HIS:CD2	2.45	0.52
1:C:3088:LYS:HG2	1:C:3091:THR:HG23	1.92	0.52
1:C:3160:ALA:HA	1:C:3241:MET:CA	2.39	0.52
1:D:3160:ALA:O	1:D:3244:SER:HB3	2.10	0.52
1:D:3164:GLY:O	1:D:3247:SER:N	2.43	0.52
1:A:3009:CYS:SG	1:A:3057:LEU:HA	2.50	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4084:VAL:O	1:A:4088:HIS:CB	2.57	0.51
1:B:585:ALA:O	1:B:589:ILE:HG12	2.10	0.51
1:B:2968:LEU:HD13	1:B:3029:ILE:HG12	1.92	0.51
1:B:3009:CYS:SG	1:B:3057:LEU:HA	2.50	0.51
1:C:2791:ARG:HD3	1:C:2795:GLY:HA3	1.91	0.51
1:C:2830:ASN:HD21	1:D:1551:ASN:HB2	1.75	0.51
1:C:3160:ALA:O	1:C:3244:SER:HB3	2.10	0.51
1:C:4276:VAL:HA	1:C:4279:MET:HG2	1.91	0.51
1:D:585:ALA:O	1:D:589:ILE:HG12	2.10	0.51
1:D:2979:ARG:HH12	1:D:2983:LEU:HD12	1.74	0.51
1:D:3216:GLU:HA	1:D:3219:VAL:HG22	1.92	0.51
1:D:3245:TYR:CD2	1:D:3246:MET:HE2	2.45	0.51
1:D:3296:MET:HA	1:D:3299:LEU:HD12	1.91	0.51
1:D:3600:VAL:HG21	3:L:37:MET:HG2	1.92	0.51
1:A:3216:GLU:HA	1:A:3219:VAL:HG22	1.92	0.51
1:A:4250:TYR:O	1:A:4254:THR:HG23	2.10	0.51
1:B:181:LEU:N	1:B:212:TRP:O	2.35	0.51
1:B:3164:GLY:O	1:B:3247:SER:N	2.43	0.51
1:B:3243:CYS:HB2	1:B:3302:PHE:HE2	1.75	0.51
1:C:2603:ALA:C	1:C:2606:PRO:HD2	2.35	0.51
1:C:4250:TYR:O	1:C:4254:THR:HG23	2.10	0.51
1:D:3009:CYS:SG	1:D:3057:LEU:HA	2.50	0.51
1:D:4250:TYR:O	1:D:4254:THR:HG23	2.10	0.51
1:A:943:LEU:HA	1:A:946:LEU:HD12	1.91	0.51
1:A:3160:ALA:HA	1:A:3241:MET:CA	2.39	0.51
1:A:3164:GLY:CA	1:A:3244:SER:C	2.84	0.51
1:A:3316:LYS:O	1:A:3317:THR:OG1	2.24	0.51
3:I:22:LYS:HD3	3:I:22:LYS:H	1.76	0.51
1:B:3216:GLU:HA	1:B:3219:VAL:HG22	1.92	0.51
1:B:3803:LEU:HD13	1:B:3888:PHE:CD2	2.45	0.51
1:B:4093:ASP:OD1	1:B:4094:ILE:N	2.42	0.51
1:C:2720:PHE:HE1	1:C:2895:PHE:HD2	1.58	0.51
1:C:3009:CYS:SG	1:C:3057:LEU:HA	2.50	0.51
1:D:2789:ILE:HD11	1:D:2901:TYR:HB3	1.92	0.51
1:D:3316:LYS:HA	1:D:3319:PHE:CE1	2.45	0.51
1:A:2888:LYS:HA	1:A:2891:ASP:OD2	2.11	0.51
1:A:3248:ARG:HB3	1:A:3249:TRP:CZ3	2.46	0.51
1:B:1144:ARG:NH1	1:B:1191:ALA:O	2.44	0.51
1:B:1957:LEU:HD21	3:J:42:GLN:NE2	2.25	0.51
1:C:614:LEU:HD23	1:C:617:LEU:HD12	1.90	0.51
1:C:3248:ARG:HB3	1:C:3249:TRP:CZ3	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3248:ARG:HB3	1:D:3249:TRP:CZ3	2.46	0.51
3:L:22:LYS:HD3	3:L:22:LYS:H	1.76	0.51
3:L:103:ALA:HA	3:L:106:LEU:HD12	1.93	0.51
1:A:1434:PRO:O	1:D:2830:ASN:ND2	2.42	0.51
1:A:3243:CYS:HB2	1:A:3302:PHE:HE2	1.75	0.51
1:B:1785:ASP:OD1	1:B:1786:ILE:N	2.43	0.51
1:B:2603:ALA:C	1:B:2606:PRO:HD2	2.35	0.51
1:B:3016:ARG:HG2	1:B:3017:HIS:CD2	2.45	0.51
1:B:3160:ALA:O	1:B:3244:SER:HB3	2.10	0.51
1:B:3910:ILE:HG21	1:B:3970:GLU:HB3	1.91	0.51
1:B:4250:TYR:O	1:B:4254:THR:HG23	2.11	0.51
1:C:625:VAL:HG12	1:C:628:ASN:H	1.75	0.51
1:C:1144:ARG:NH1	1:C:1191:ALA:O	2.44	0.51
1:C:1457:PHE:HA	1:C:1461:ARG:HH12	1.76	0.51
1:C:2968:LEU:HD13	1:C:3029:ILE:HG12	1.92	0.51
1:C:4661:TYR:HB3	1:C:4665:ARG:HH21	1.75	0.51
1:D:515:ALA:HB2	1:D:523:GLY:HA3	1.91	0.51
1:D:3164:GLY:CA	1:D:3244:SER:C	2.84	0.51
1:D:3247:SER:HA	1:D:3250:TRP:H	1.75	0.51
1:D:3298:ARG:NH2	3:L:134:ASP:HA	2.26	0.51
1:A:2603:ALA:C	1:A:2606:PRO:HD2	2.35	0.51
1:A:3016:ARG:HG2	1:A:3017:HIS:CD2	2.45	0.51
1:A:3063:ASN:ND2	1:A:3066:GLU:OE2	2.41	0.51
1:A:3247:SER:HA	1:A:3250:TRP:H	1.75	0.51
2:F:29:GLY:N	2:F:38:ASP:O	2.37	0.51
1:B:2791:ARG:HD3	1:B:2795:GLY:HA3	1.91	0.51
1:B:3164:GLY:CA	1:B:3244:SER:C	2.84	0.51
1:B:3248:ARG:HB3	1:B:3249:TRP:CZ3	2.46	0.51
1:B:3951:PHE:CD2	1:B:3975:GLN:HG2	2.45	0.51
1:C:943:LEU:HD22	1:C:1057:LEU:HD21	1.91	0.51
1:C:2202:TYR:O	1:C:2206:ILE:HG12	2.11	0.51
1:C:3102:LEU:HD13	1:C:3137:LEU:HD21	1.92	0.51
1:C:3166:PHE:CE2	1:C:3168:VAL:HG22	2.41	0.51
1:D:3166:PHE:CG	1:D:3167:PRO:HD2	2.45	0.51
1:A:1457:PHE:HA	1:A:1461:ARG:HH12	1.76	0.51
1:A:2202:TYR:O	1:A:2206:ILE:HG12	2.11	0.51
1:A:4834:PRO:HB3	1:A:4843:ARG:HG2	1.92	0.51
1:B:1457:PHE:HA	1:B:1461:ARG:HH12	1.76	0.51
1:B:2720:PHE:HE1	1:B:2895:PHE:HD2	1.58	0.51
1:B:2940:ILE:HA	1:B:2943:PHE:HD2	1.76	0.51
1:B:3088:LYS:HG2	1:B:3091:THR:HG23	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3102:LEU:HD13	1:B:3137:LEU:HD21	1.92	0.51
1:B:3245:TYR:CD2	1:B:3246:MET:HE2	2.46	0.51
1:C:644:LEU:HD13	1:C:1630:LEU:HD21	1.93	0.51
1:C:2629:ASN:OD1	1:C:2630:PHE:N	2.44	0.51
1:C:2940:ILE:HA	1:C:2943:PHE:HD2	1.76	0.51
1:C:3245:TYR:O	1:C:3248:ARG:N	2.44	0.51
1:D:3088:LYS:HG2	1:D:3091:THR:HG23	1.92	0.51
1:A:3102:LEU:HD13	1:A:3137:LEU:HD21	1.92	0.51
1:A:4270:LYS:HZ2	1:A:4274:MET:HE1	1.76	0.51
2:E:67:MET:HE1	2:E:102:VAL:HG12	1.91	0.51
1:B:4055:HIS:C	1:B:4056:LYS:HG2	2.36	0.51
1:B:4113:THR:O	1:B:4117:THR:HG23	2.11	0.51
1:B:4268:MET:HE2	1:C:4694:LEU:HD13	1.91	0.51
1:C:1500:ARG:HG3	1:C:1505:LEU:HB2	1.93	0.51
1:D:2888:LYS:HA	1:D:2891:ASP:OD2	2.11	0.51
1:D:3102:LEU:HD13	1:D:3137:LEU:HD21	1.92	0.51
1:D:4011:GLU:HG3	1:D:4015:LYS:HZ2	1.75	0.51
3:K:103:ALA:HA	3:K:106:LEU:HD12	1.93	0.51
1:A:2940:ILE:HA	1:A:2943:PHE:HD2	1.76	0.51
1:A:4113:THR:O	1:A:4117:THR:HG23	2.11	0.51
1:A:4661:TYR:HB3	1:A:4665:ARG:HH21	1.75	0.51
1:B:2888:LYS:HA	1:B:2891:ASP:OD2	2.11	0.51
1:B:3057:LEU:O	1:B:3060:PHE:HB3	2.11	0.51
1:B:3166:PHE:CG	1:B:3167:PRO:HD2	2.45	0.51
1:C:877:HIS:O	1:C:880:ARG:HD3	2.11	0.51
1:C:2789:ILE:HD11	1:C:2901:TYR:HB3	1.92	0.51
1:C:3057:LEU:O	1:C:3060:PHE:HB3	2.11	0.51
1:C:3164:GLY:CA	1:C:3244:SER:C	2.84	0.51
1:C:3166:PHE:CG	1:C:3167:PRO:HD2	2.45	0.51
1:C:4113:THR:O	1:C:4117:THR:HG23	2.11	0.51
1:D:877:HIS:O	1:D:880:ARG:HD3	2.11	0.51
1:D:2202:TYR:O	1:D:2206:ILE:HG12	2.11	0.51
1:D:2580:LEU:O	1:D:2616:ARG:NH2	2.37	0.51
1:D:2629:ASN:OD1	1:D:2630:PHE:N	2.44	0.51
1:D:3045:VAL:HG11	1:D:3121:LEU:HD12	1.91	0.51
1:B:1500:ARG:HG3	1:B:1505:LEU:HB2	1.93	0.51
1:B:2979:ARG:HH12	1:B:2983:LEU:HD12	1.74	0.51
1:B:3157:GLU:O	1:B:3160:ALA:HB3	2.11	0.51
1:B:3245:TYR:O	1:B:3248:ARG:N	2.44	0.51
1:D:849:ASP:OD1	1:D:1214:ARG:NE	2.44	0.51
1:D:874:LEU:HD11	1:D:878:LEU:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1118:SER:HB3	1:D:1204:VAL:HG11	1.92	0.51
1:D:1144:ARG:NH1	1:D:1191:ALA:O	2.44	0.51
1:D:2940:ILE:HA	1:D:2943:PHE:HD2	1.76	0.51
1:D:3160:ALA:HA	1:D:3240:PRO:C	2.34	0.51
3:J:22:LYS:H	3:J:22:LYS:HD3	1.76	0.51
3:L:123:ASP:HA	3:L:126:ILE:HG22	1.91	0.51
1:A:3057:LEU:O	1:A:3060:PHE:HB3	2.11	0.50
1:A:3313:GLN:HA	1:A:3316:LYS:HE3	1.93	0.50
1:B:3000:GLU:HA	1:B:3003:MET:HE2	1.93	0.50
1:C:3057:LEU:HD12	1:C:3058:ARG:HG3	1.93	0.50
1:C:3157:GLU:O	1:C:3160:ALA:HB3	2.11	0.50
1:D:2603:ALA:C	1:D:2606:PRO:HD2	2.35	0.50
1:D:4266:LYS:HE3	1:D:4267:GLN:NE2	2.27	0.50
3:K:66:PHE:CZ	3:K:70:LEU:HD21	2.46	0.50
1:A:2580:LEU:O	1:A:2616:ARG:NH2	2.37	0.50
1:B:877:HIS:O	1:B:880:ARG:HD3	2.11	0.50
1:B:2580:LEU:O	1:B:2616:ARG:NH2	2.37	0.50
1:B:2629:ASN:OD1	1:B:2630:PHE:N	2.44	0.50
1:C:2418:ARG:HH21	1:D:156:GLU:CD	2.19	0.50
1:C:4921:PHE:HE2	1:C:4940:VAL:HG11	1.77	0.50
1:D:644:LEU:HD13	1:D:1630:LEU:HD21	1.93	0.50
1:D:1785:ASP:OD1	1:D:1786:ILE:N	2.43	0.50
1:D:3118:GLY:HA3	1:D:3167:PRO:HB3	1.93	0.50
1:D:4921:PHE:HE2	1:D:4940:VAL:HG11	1.77	0.50
1:A:686:VAL:HG13	1:A:687:THR:HG23	1.94	0.50
1:A:874:LEU:HD13	1:A:940:LEU:CD1	2.38	0.50
1:A:2720:PHE:HE1	1:A:2895:PHE:HD2	1.58	0.50
1:A:3157:GLU:O	1:A:3160:ALA:HB3	2.11	0.50
1:A:3591:LEU:HD21	3:I:86:ILE:HG12	1.93	0.50
1:A:3602:CYS:HB2	3:I:76:LYS:HG3	1.93	0.50
1:A:4055:HIS:C	1:A:4056:LYS:HG2	2.36	0.50
1:B:1118:SER:HB3	1:B:1204:VAL:HG11	1.92	0.50
1:B:2972:ASP:HB2	1:B:3032:CYS:SG	2.52	0.50
1:B:3057:LEU:HD12	1:B:3058:ARG:HG3	1.93	0.50
1:C:1785:ASP:OD1	1:C:1786:ILE:N	2.43	0.50
1:C:2972:ASP:HB2	1:C:3032:CYS:SG	2.52	0.50
1:A:1500:ARG:HG3	1:A:1505:LEU:HB2	1.93	0.50
1:A:1785:ASP:OD1	1:A:1786:ILE:N	2.43	0.50
1:A:2418:ARG:HH21	1:B:156:GLU:CD	2.18	0.50
2:F:22:THR:HG22	2:F:50:ARG:HG2	1.94	0.50
1:B:874:LEU:HD13	1:B:940:LEU:CD1	2.38	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3247:SER:HA	1:B:3250:TRP:H	1.75	0.50
1:C:561:ARG:HB3	1:C:564:ARG:HD2	1.93	0.50
1:C:2888:LYS:HA	1:C:2891:ASP:OD2	2.11	0.50
1:C:4266:LYS:HE3	1:C:4267:GLN:NE2	2.26	0.50
1:D:2968:LEU:HD13	1:D:3029:ILE:HG12	1.92	0.50
1:D:3057:LEU:O	1:D:3060:PHE:HB3	2.11	0.50
1:D:4088:HIS:O	1:D:4092:LYS:N	2.39	0.50
1:A:181:LEU:N	1:A:212:TRP:O	2.35	0.50
1:A:1144:ARG:NH1	1:A:1191:ALA:O	2.44	0.50
1:A:3166:PHE:CG	1:A:3167:PRO:HD2	2.45	0.50
1:A:3298:ARG:NH2	3:I:133:GLY:C	2.69	0.50
3:I:103:ALA:HA	3:I:106:LEU:HD12	1.93	0.50
1:B:332:ARG:NH1	1:B:339:ASP:OD1	2.42	0.50
1:B:4661:TYR:HB3	1:B:4665:ARG:HH21	1.75	0.50
1:C:1118:SER:HB3	1:C:1204:VAL:HG11	1.92	0.50
1:C:1685:LEU:HB3	1:C:1706:LEU:HD12	1.94	0.50
1:C:3108:LEU:HA	1:C:3111:HIS:CE1	2.46	0.50
1:C:4834:PRO:HB3	1:C:4843:ARG:HG2	1.92	0.50
1:D:686:VAL:HG13	1:D:687:THR:HG23	1.94	0.50
1:D:943:LEU:HD22	1:D:1057:LEU:HD21	1.91	0.50
1:D:1079:SER:HB3	1:D:1084:ARG:HH22	1.77	0.50
1:D:1457:PHE:HA	1:D:1461:ARG:HH12	1.76	0.50
1:D:2176:VAL:HG22	1:D:2220:TYR:CZ	2.47	0.50
1:A:2972:ASP:HB2	1:A:3032:CYS:SG	2.52	0.50
1:A:3118:GLY:HA3	1:A:3167:PRO:HB3	1.93	0.50
1:A:3304:GLN:HA	1:A:3307:ILE:HG12	1.94	0.50
2:G:20:GLY:HA2	2:G:53:LYS:HZ2	1.76	0.50
1:B:370:LEU:HD23	1:B:395:HIS:HB3	1.94	0.50
1:B:2176:VAL:HG22	1:B:2220:TYR:CZ	2.47	0.50
1:B:3304:GLN:HA	1:B:3307:ILE:HG12	1.94	0.50
1:C:849:ASP:OD1	1:C:1214:ARG:NE	2.44	0.50
1:C:3245:TYR:CD2	1:C:3246:MET:HE2	2.46	0.50
1:D:895:MET:O	1:D:899:GLU:HG2	2.11	0.50
1:D:1685:LEU:HB3	1:D:1706:LEU:HD12	1.94	0.50
1:D:2720:PHE:HE1	1:D:2895:PHE:HD2	1.58	0.50
1:D:2972:ASP:HB2	1:D:3032:CYS:SG	2.52	0.50
1:D:4897:TYR:OH	1:D:4963:GLU:OE1	2.22	0.50
3:J:66:PHE:CZ	3:J:70:LEU:HD21	2.46	0.50
3:L:66:PHE:CZ	3:L:70:LEU:HD21	2.46	0.50
1:A:1118:SER:HB3	1:A:1204:VAL:HG11	1.92	0.50
1:A:2629:ASN:OD1	1:A:2630:PHE:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2968:LEU:HD13	1:A:3029:ILE:HG12	1.92	0.50
3:I:66:PHE:CZ	3:I:70:LEU:HD21	2.46	0.50
1:B:644:LEU:HD13	1:B:1630:LEU:HD21	1.93	0.50
1:B:686:VAL:HG13	1:B:687:THR:HG23	1.94	0.50
1:B:964:MET:O	1:B:977:LYS:NZ	2.44	0.50
1:B:2202:TYR:O	1:B:2206:ILE:HG12	2.11	0.50
1:B:3313:GLN:HA	1:B:3316:LYS:HE3	1.93	0.50
1:C:2936:ALA:O	1:C:2940:ILE:HG12	2.11	0.50
1:D:2828:MET:HE1	1:D:2895:PHE:CD1	2.38	0.50
1:D:4834:PRO:HB3	1:D:4843:ARG:HG2	1.92	0.50
1:A:561:ARG:HB3	1:A:564:ARG:HD2	1.93	0.50
1:A:3057:LEU:HD12	1:A:3058:ARG:HG3	1.93	0.50
1:A:3088:LYS:HG2	1:A:3091:THR:HG23	1.93	0.50
1:A:3245:TYR:O	1:A:3248:ARG:N	2.44	0.50
2:G:22:THR:HG22	2:G:50:ARG:HG2	1.94	0.50
2:H:29:GLY:N	2:H:38:ASP:O	2.37	0.50
1:B:1011:ARG:HB3	1:B:1016:TRP:HB2	1.93	0.50
1:B:3298:ARG:HH22	3:J:133:GLY:C	2.20	0.50
1:C:1705:LEU:O	1:C:1709:ILE:HG13	2.12	0.50
1:C:3192:ARG:HD2	1:C:3197:LEU:HD12	1.94	0.50
1:C:3247:SER:HA	1:C:3250:TRP:H	1.75	0.50
1:D:1063:ASN:HD22	1:D:1063:ASN:C	2.20	0.50
1:D:1432:ILE:HG22	1:D:1500:ARG:HH21	1.77	0.50
1:D:2791:ARG:HA	1:D:2901:TYR:HA	1.94	0.50
3:J:103:ALA:HA	3:J:106:LEU:HD12	1.93	0.50
1:A:332:ARG:NH1	1:A:339:ASP:OD1	2.42	0.50
1:A:2936:ALA:O	1:A:2940:ILE:HG12	2.11	0.50
1:B:895:MET:O	1:B:899:GLU:HG2	2.11	0.50
1:B:1549:SER:OG	1:B:1551:ASN:O	2.26	0.50
1:B:1705:LEU:O	1:B:1709:ILE:HG13	2.12	0.50
1:B:2119:LEU:HB2	1:B:2152:ASN:ND2	2.27	0.50
1:B:4107:GLU:OE1	1:B:4149:TYR:OH	2.20	0.50
1:B:4266:LYS:HE3	1:B:4267:GLN:NE2	2.27	0.50
1:C:624:ALA:HB2	1:C:1667:LEU:HD12	1.94	0.50
1:C:887:GLU:O	1:C:891:GLU:HG2	2.12	0.50
1:C:2273:GLY:O	1:C:2336:ARG:NH2	2.45	0.50
1:C:4055:HIS:C	1:C:4056:LYS:HG2	2.36	0.50
1:D:1705:LEU:O	1:D:1709:ILE:HG13	2.12	0.50
1:D:3245:TYR:O	1:D:3248:ARG:N	2.44	0.50
1:D:4055:HIS:C	1:D:4056:LYS:HG2	2.36	0.50
1:A:1063:ASN:HD22	1:A:1063:ASN:C	2.20	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3159:LEU:O	1:A:3162:PHE:HB2	2.12	0.49
1:A:3827:GLU:OE1	1:A:3827:GLU:N	2.37	0.49
1:A:4634:VAL:HG22	1:A:4640:PHE:HD1	1.77	0.49
1:B:561:ARG:HB3	1:B:564:ARG:HD2	1.93	0.49
1:B:2936:ALA:O	1:B:2940:ILE:HG12	2.11	0.49
1:B:4921:PHE:HE2	1:B:4940:VAL:HG11	1.76	0.49
1:C:332:ARG:NH1	1:C:339:ASP:OD1	2.42	0.49
1:C:964:MET:O	1:C:977:LYS:NZ	2.44	0.49
1:C:1063:ASN:HD22	1:C:1063:ASN:C	2.20	0.49
1:C:2176:VAL:HG22	1:C:2220:TYR:CZ	2.47	0.49
1:C:3111:HIS:HA	1:C:3114:GLN:HG2	1.94	0.49
1:C:3313:GLN:HA	1:C:3316:LYS:HE3	1.93	0.49
1:C:4897:TYR:OH	1:C:4963:GLU:OE1	2.22	0.49
1:D:895:MET:HE3	1:D:978:PRO:CD	2.34	0.49
1:D:1500:ARG:HG3	1:D:1505:LEU:HB2	1.93	0.49
1:D:2406:MET:HA	1:D:2406:MET:HE3	1.94	0.49
1:D:2610:LEU:HD13	1:D:2644:LEU:HD21	1.94	0.49
1:D:3108:LEU:HA	1:D:3111:HIS:CE1	2.47	0.49
1:D:3157:GLU:O	1:D:3160:ALA:HB3	2.11	0.49
1:D:3313:GLN:HA	1:D:3316:LYS:HE3	1.93	0.49
1:D:4113:THR:O	1:D:4117:THR:HG23	2.11	0.49
3:K:22:LYS:H	3:K:22:LYS:HD3	1.76	0.49
1:A:370:LEU:HD23	1:A:395:HIS:HB3	1.94	0.49
1:A:1079:SER:HB3	1:A:1084:ARG:HH22	1.77	0.49
1:A:1502:ASN:O	1:D:2824:ARG:NH2	2.45	0.49
1:A:2988:ARG:H	1:A:2989:PRO:CD	2.26	0.49
1:A:3108:LEU:HA	1:A:3111:HIS:CE1	2.47	0.49
1:A:3111:HIS:HA	1:A:3114:GLN:HG2	1.94	0.49
3:I:27:THR:HB	3:I:63:THR:HB	1.94	0.49
1:B:887:GLU:O	1:B:891:GLU:HG2	2.12	0.49
1:B:1952:ASN:OD1	1:B:1953:MET:N	2.45	0.49
1:B:3108:LEU:HA	1:B:3111:HIS:CE1	2.47	0.49
1:B:3111:HIS:HA	1:B:3114:GLN:HG2	1.94	0.49
1:B:4831:ILE:HG13	1:B:4843:ARG:NH2	2.28	0.49
1:C:1011:ARG:HB3	1:C:1016:TRP:HB2	1.93	0.49
1:C:1952:ASN:OD1	1:C:1953:MET:N	2.45	0.49
1:C:3192:ARG:NH2	1:C:3197:LEU:HB3	2.27	0.49
1:D:2936:ALA:O	1:D:2940:ILE:HG12	2.11	0.49
1:D:3111:HIS:HA	1:D:3114:GLN:HG2	1.94	0.49
3:L:5:LEU:HD23	3:L:10:ILE:HD13	1.94	0.49
1:A:2176:VAL:HG22	1:A:2220:TYR:CZ	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3000:GLU:HA	1:A:3003:MET:HE2	1.93	0.49
1:A:4266:LYS:HE3	1:A:4267:GLN:NE2	2.27	0.49
1:B:3159:LEU:O	1:B:3162:PHE:HB2	2.12	0.49
1:B:4055:HIS:O	1:B:4057:HIS:N	2.46	0.49
1:D:1952:ASN:OD1	1:D:1953:MET:N	2.45	0.49
1:D:3604:ARG:HA	3:L:52:MET:HE3	1.94	0.49
1:A:887:GLU:O	1:A:891:GLU:HG2	2.12	0.49
1:A:1952:ASN:OD1	1:A:1953:MET:N	2.45	0.49
1:A:2937:HIS:HB2	1:A:3014:LEU:HD12	1.95	0.49
2:H:22:THR:HG22	2:H:50:ARG:HG2	1.94	0.49
1:B:1685:LEU:HB3	1:B:1706:LEU:HD12	1.94	0.49
1:B:3118:GLY:HA3	1:B:3167:PRO:HB3	1.93	0.49
1:B:3192:ARG:HD2	1:B:3197:LEU:HD12	1.94	0.49
1:B:3699:CYS:SG	1:B:3731:LEU:HD12	2.52	0.49
1:C:874:LEU:HD13	1:C:940:LEU:CD1	2.38	0.49
1:C:2432:LEU:O	1:C:2436:ILE:HG13	2.12	0.49
1:D:470:LEU:HB2	1:D:475:LYS:HG3	1.95	0.49
1:D:624:ALA:HB2	1:D:1667:LEU:HD12	1.94	0.49
1:D:3172:GLU:HB2	1:D:3211:LEU:CD1	2.43	0.49
1:D:3187:LYS:HG3	1:D:3192:ARG:HD3	1.95	0.49
1:D:3192:ARG:NH2	1:D:3197:LEU:HB3	2.27	0.49
1:A:849:ASP:OD1	1:A:1214:ARG:NE	2.44	0.49
1:A:877:HIS:O	1:A:880:ARG:HD3	2.11	0.49
1:A:1705:LEU:O	1:A:1709:ILE:HG13	2.12	0.49
1:A:2119:LEU:HB2	1:A:2152:ASN:ND2	2.27	0.49
1:A:2791:ARG:HA	1:A:2901:TYR:HA	1.94	0.49
1:A:3072:MET:HE1	1:A:3136:SER:O	2.12	0.49
1:A:3699:CYS:SG	1:A:3731:LEU:HD12	2.52	0.49
1:A:4055:HIS:O	1:A:4057:HIS:N	2.46	0.49
1:B:3179:ASN:O	1:B:3182:SER:OG	2.24	0.49
1:B:3298:ARG:NH2	3:J:134:ASP:HA	2.28	0.49
1:B:3316:LYS:O	1:B:3317:THR:OG1	2.24	0.49
1:B:4082:GLU:HA	1:B:4085:LYS:HG2	1.95	0.49
1:C:3172:GLU:HB2	1:C:3211:LEU:CD1	2.43	0.49
1:C:3187:LYS:HG3	1:C:3192:ARG:HD3	1.95	0.49
1:C:3298:ARG:HH22	3:K:133:GLY:C	2.14	0.49
1:C:4608:ARG:NH2	1:C:4644:TYR:OH	2.45	0.49
1:D:3000:GLU:HA	1:D:3003:MET:HE2	1.93	0.49
3:L:27:THR:HB	3:L:63:THR:HB	1.95	0.49
3:K:5:LEU:HD23	3:K:10:ILE:HD13	1.94	0.49
1:A:644:LEU:HD13	1:A:1630:LEU:HD21	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2406:MET:HA	1:A:2406:MET:HE3	1.94	0.49
1:A:3049:GLY:HA3	1:A:3054:LYS:HE3	1.95	0.49
1:A:3183:ILE:HG13	1:A:3187:LYS:HZ2	1.76	0.49
1:B:624:ALA:HB2	1:B:1667:LEU:HD12	1.94	0.49
1:B:2406:MET:HA	1:B:2406:MET:HE3	1.93	0.49
1:B:4834:PRO:HB3	1:B:4843:ARG:HG2	1.92	0.49
1:C:1079:SER:HB3	1:C:1084:ARG:HH22	1.77	0.49
1:C:1229:ILE:O	1:C:1233:GLN:NE2	2.37	0.49
1:C:2406:MET:HE3	1:C:2406:MET:HA	1.94	0.49
1:C:2772:ARG:O	1:C:2776:LYS:HG2	2.13	0.49
1:C:3118:GLY:HA3	1:C:3167:PRO:HB3	1.93	0.49
1:C:3304:GLN:HA	1:C:3307:ILE:HG12	1.94	0.49
1:C:4082:GLU:HA	1:C:4085:LYS:HG2	1.95	0.49
1:D:874:LEU:HD13	1:D:940:LEU:CD1	2.38	0.49
1:D:887:GLU:O	1:D:891:GLU:HG2	2.12	0.49
1:D:3057:LEU:HD12	1:D:3058:ARG:HG3	1.93	0.49
1:D:3192:ARG:HD2	1:D:3197:LEU:HD12	1.94	0.49
3:K:27:THR:HB	3:K:63:THR:HB	1.94	0.49
1:A:1011:ARG:HB3	1:A:1016:TRP:HB2	1.93	0.49
1:A:4268:MET:HE1	1:B:4481:TRP:HZ2	1.73	0.49
1:A:4520:TYR:O	1:B:4809:MET:HB2	2.13	0.49
1:B:1063:ASN:C	1:B:1063:ASN:HD22	2.20	0.49
1:B:3192:ARG:HA	1:B:3197:LEU:HD12	1.95	0.49
1:C:686:VAL:HG13	1:C:687:THR:HG23	1.94	0.49
1:C:895:MET:O	1:C:899:GLU:HG2	2.11	0.49
1:C:2610:LEU:HD13	1:C:2644:LEU:HD21	1.94	0.49
1:C:2791:ARG:HA	1:C:2901:TYR:HA	1.94	0.49
1:C:4110:PRO:O	1:C:4116:GLN:NE2	2.46	0.49
1:C:4797:GLU:H	1:C:4797:GLU:CD	2.20	0.49
1:C:4831:ILE:HG13	1:C:4843:ARG:NH2	2.28	0.49
1:D:2937:HIS:HB2	1:D:3014:LEU:HD12	1.95	0.49
1:D:3304:GLN:HA	1:D:3307:ILE:HG12	1.94	0.49
3:K:57:ASP:OD2	3:K:62:GLY:N	2.40	0.49
1:A:882:ARG:HA	1:A:885:LEU:HB3	1.95	0.49
1:A:937:LEU:O	1:A:940:LEU:HG	2.13	0.49
1:A:2273:GLY:O	1:A:2336:ARG:NH2	2.45	0.49
1:A:3713:SER:O	1:A:3717:LYS:HG3	2.13	0.49
1:A:4520:TYR:HB3	1:B:4809:MET:HB2	1.95	0.49
1:A:4921:PHE:HE2	1:A:4940:VAL:HG11	1.77	0.49
1:B:1432:ILE:HG22	1:B:1500:ARG:HH21	1.77	0.49
1:B:2432:LEU:O	1:B:2436:ILE:HG13	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:181:LEU:N	1:C:212:TRP:O	2.35	0.49
1:C:3072:MET:HE1	1:C:3136:SER:O	2.12	0.49
1:C:3900:GLU:OE1	1:C:3904:ARG:NH2	2.45	0.49
1:D:661:LEU:HD23	1:D:673:TRP:CD1	2.48	0.49
1:D:1303:ARG:HA	1:D:1542:ALA:HA	1.95	0.49
1:D:2432:LEU:O	1:D:2436:ILE:HG13	2.12	0.49
1:D:3159:LEU:O	1:D:3162:PHE:HB2	2.12	0.49
1:D:3846:LEU:HB3	1:D:3854:PHE:CE2	2.48	0.49
1:D:3900:GLU:OE1	1:D:3904:ARG:NH2	2.45	0.49
1:A:3192:ARG:NH2	1:A:3197:LEU:HB3	2.27	0.49
1:A:3846:LEU:HB3	1:A:3854:PHE:CE2	2.48	0.49
2:E:22:THR:HG22	2:E:50:ARG:HG2	1.94	0.49
1:B:1502:ASN:OD1	1:B:1503:ASN:N	2.46	0.49
1:B:2273:GLY:O	1:B:2336:ARG:NH2	2.45	0.49
1:B:2418:ARG:NH2	1:C:156:GLU:OE2	2.43	0.49
1:B:3049:GLY:HA3	1:B:3054:LYS:HE3	1.95	0.49
1:B:3162:PHE:O	1:B:3245:TYR:CB	2.61	0.49
1:B:3164:GLY:CA	1:B:3247:SER:N	2.76	0.49
1:B:3187:LYS:HG3	1:B:3192:ARG:HD3	1.95	0.49
1:B:3298:ARG:NH2	3:J:133:GLY:O	2.43	0.49
1:B:4608:ARG:NH2	1:B:4644:TYR:OH	2.45	0.49
1:C:1432:ILE:HG22	1:C:1500:ARG:HH21	1.77	0.49
1:C:3192:ARG:HA	1:C:3197:LEU:HD12	1.95	0.49
1:C:4088:HIS:O	1:C:4092:LYS:N	2.39	0.49
1:D:2273:GLY:O	1:D:2336:ARG:NH2	2.45	0.49
1:D:3713:SER:O	1:D:3717:LYS:HG3	2.13	0.49
1:D:4270:LYS:HZ2	1:D:4274:MET:HE1	1.76	0.49
1:A:895:MET:O	1:A:899:GLU:HG2	2.11	0.49
1:A:1685:LEU:HB3	1:A:1706:LEU:HD12	1.94	0.49
1:A:2200:LEU:HD22	1:A:2214:MET:SD	2.53	0.49
1:A:2207:SER:HB3	1:A:2210:ASN:ND2	2.28	0.49
1:A:3192:ARG:HA	1:A:3197:LEU:HD12	1.95	0.49
1:A:4831:ILE:HG13	1:A:4843:ARG:NH2	2.28	0.49
1:B:849:ASP:OD1	1:B:1214:ARG:NE	2.44	0.49
1:B:1303:ARG:HA	1:B:1542:ALA:HA	1.95	0.49
1:B:1989:PRO:O	1:B:1993:ARG:HG3	2.13	0.49
1:B:2988:ARG:H	1:B:2989:PRO:CD	2.26	0.49
1:B:3172:GLU:HB2	1:B:3211:LEU:CD1	2.42	0.49
1:B:3312:PRO:O	1:B:3315:LEU:N	2.46	0.49
1:B:4797:GLU:CD	1:B:4797:GLU:H	2.20	0.49
1:C:1502:ASN:OD1	1:C:1503:ASN:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2937:HIS:HB2	1:C:3014:LEU:HD12	1.95	0.49
1:C:3000:GLU:HA	1:C:3003:MET:HE2	1.93	0.49
1:C:3162:PHE:O	1:C:3245:TYR:CB	2.61	0.49
1:C:3699:CYS:SG	1:C:3731:LEU:HD12	2.52	0.49
1:C:3846:LEU:HB3	1:C:3854:PHE:CE2	2.48	0.49
1:C:3892:TYR:OH	1:C:3899:ASP:OD1	2.26	0.49
1:D:2758:LYS:HE2	1:D:2763:LEU:HA	1.95	0.49
1:D:4055:HIS:O	1:D:4057:HIS:N	2.46	0.49
1:D:4735:ASN:HB3	1:D:4738:PHE:CD2	2.48	0.49
3:J:5:LEU:HD23	3:J:10:ILE:HD13	1.94	0.49
3:J:57:ASP:OD2	3:J:62:GLY:N	2.40	0.49
1:A:624:ALA:HB2	1:A:1667:LEU:HD12	1.94	0.48
1:A:2575:SER:O	1:A:2579:GLN:HG2	2.13	0.48
1:A:2610:LEU:HD13	1:A:2644:LEU:HD21	1.94	0.48
3:I:5:LEU:HD23	3:I:10:ILE:HD13	1.94	0.48
1:B:240:HIS:HB2	1:C:168:GLN:HE21	1.77	0.48
1:B:937:LEU:O	1:B:940:LEU:HG	2.13	0.48
1:B:2791:ARG:HA	1:B:2901:TYR:HA	1.94	0.48
1:C:661:LEU:HD23	1:C:673:TRP:CD1	2.48	0.48
1:C:3713:SER:O	1:C:3717:LYS:HG3	2.13	0.48
1:C:4943:MET:HE1	1:C:4950:GLU:HB2	1.94	0.48
1:D:969:ASN:OD1	1:D:970:TYR:N	2.46	0.48
1:D:3312:PRO:O	1:D:3315:LEU:N	2.46	0.48
1:D:3699:CYS:SG	1:D:3731:LEU:HD12	2.52	0.48
1:D:4110:PRO:O	1:D:4116:GLN:NE2	2.46	0.48
3:K:122:VAL:O	3:K:125:MET:HG3	2.13	0.48
1:A:1303:ARG:HA	1:A:1542:ALA:HA	1.95	0.48
1:A:1931:ASP:OD1	1:A:1932:PHE:N	2.47	0.48
1:A:4082:GLU:HA	1:A:4085:LYS:HG2	1.95	0.48
1:A:4797:GLU:H	1:A:4797:GLU:CD	2.20	0.48
1:B:2772:ARG:O	1:B:2776:LYS:HG2	2.13	0.48
1:B:2937:HIS:HB2	1:B:3014:LEU:HD12	1.95	0.48
1:B:3072:MET:HE1	1:B:3136:SER:O	2.12	0.48
1:B:3846:LEU:HB3	1:B:3854:PHE:CE2	2.48	0.48
1:B:4110:PRO:O	1:B:4116:GLN:NE2	2.46	0.48
1:B:4634:VAL:HG22	1:B:4640:PHE:HD1	1.77	0.48
1:C:976:TYR:O	1:C:978:PRO:HD3	2.13	0.48
1:C:1303:ARG:HA	1:C:1542:ALA:HA	1.95	0.48
1:C:1953:MET:CE	1:C:1953:MET:HA	2.44	0.48
1:C:1989:PRO:O	1:C:1993:ARG:HG3	2.13	0.48
1:C:2200:LEU:HD22	1:C:2214:MET:SD	2.53	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3071:THR:HA	1:C:3074:ASN:ND2	2.29	0.48
1:C:3109:PHE:HA	1:C:3112:ILE:HG22	1.95	0.48
1:C:3159:LEU:O	1:C:3162:PHE:HB2	2.12	0.48
1:D:798:ILE:HD12	1:D:800:VAL:HG22	1.95	0.48
1:D:882:ARG:HA	1:D:885:LEU:HB3	1.95	0.48
1:D:1011:ARG:HB3	1:D:1016:TRP:HB2	1.93	0.48
1:D:1833:ILE:O	1:D:1835:HIS:ND1	2.46	0.48
1:D:2162:MET:HB3	1:D:2167:MET:HE2	1.96	0.48
1:D:3109:PHE:HA	1:D:3112:ILE:HG22	1.95	0.48
1:D:3162:PHE:O	1:D:3245:TYR:CB	2.61	0.48
1:D:3179:ASN:O	1:D:3182:SER:OG	2.24	0.48
1:D:4797:GLU:CD	1:D:4797:GLU:H	2.20	0.48
1:A:1161:VAL:HG21	1:A:1225:LYS:HE3	1.95	0.48
1:A:1432:ILE:HG22	1:A:1500:ARG:HH21	1.77	0.48
1:A:2415:GLU:OE1	1:A:2418:ARG:NH1	2.46	0.48
1:A:3172:GLU:HB2	1:A:3211:LEU:CD1	2.43	0.48
1:A:3312:PRO:O	1:A:3315:LEU:N	2.46	0.48
1:A:4943:MET:HE1	1:A:4950:GLU:HB2	1.94	0.48
1:B:798:ILE:HD12	1:B:800:VAL:HG22	1.96	0.48
1:B:1161:VAL:HG21	1:B:1225:LYS:HE3	1.96	0.48
1:B:1688:ALA:HA	1:B:1694:MET:HE3	1.96	0.48
1:B:2207:SER:HB3	1:B:2210:ASN:ND2	2.28	0.48
1:B:3713:SER:O	1:B:3717:LYS:HG3	2.13	0.48
1:B:3892:TYR:OH	1:B:3899:ASP:OD1	2.27	0.48
1:C:937:LEU:O	1:C:940:LEU:HG	2.13	0.48
1:C:1161:VAL:HG21	1:C:1225:LYS:HE3	1.95	0.48
1:C:2119:LEU:HB2	1:C:2152:ASN:ND2	2.27	0.48
1:C:4055:HIS:O	1:C:4057:HIS:N	2.46	0.48
1:D:561:ARG:HB3	1:D:564:ARG:HD2	1.93	0.48
1:D:2119:LEU:HB2	1:D:2152:ASN:ND2	2.27	0.48
1:D:2415:GLU:OE1	1:D:2418:ARG:NH1	2.46	0.48
1:D:2988:ARG:H	1:D:2989:PRO:CD	2.26	0.48
1:A:470:LEU:HB2	1:A:475:LYS:HG3	1.95	0.48
1:A:1721:MET:HE1	1:A:2127:ARG:HH11	1.78	0.48
1:A:2758:LYS:HE2	1:A:2763:LEU:HA	1.95	0.48
1:A:3187:LYS:HG3	1:A:3192:ARG:HD3	1.95	0.48
1:B:470:LEU:HB2	1:B:475:LYS:HG3	1.95	0.48
1:B:4943:MET:HE1	1:B:4950:GLU:HB2	1.94	0.48
1:C:1688:ALA:HA	1:C:1694:MET:HE3	1.96	0.48
1:C:2988:ARG:H	1:C:2989:PRO:CD	2.26	0.48
1:D:1721:MET:HE1	1:D:2127:ARG:HH11	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2575:SER:O	1:D:2579:GLN:HG2	2.13	0.48
1:D:3063:ASN:ND2	1:D:3066:GLU:OE2	2.41	0.48
1:D:4831:ILE:HG13	1:D:4843:ARG:NH2	2.28	0.48
3:J:27:THR:HB	3:J:63:THR:HB	1.95	0.48
1:A:976:TYR:O	1:A:978:PRO:HD3	2.13	0.48
1:A:4110:PRO:O	1:A:4116:GLN:NE2	2.46	0.48
1:B:969:ASN:OD1	1:B:970:TYR:N	2.46	0.48
1:B:2610:LEU:HD13	1:B:2644:LEU:HD21	1.95	0.48
1:B:2758:LYS:HE2	1:B:2763:LEU:HA	1.95	0.48
1:B:3192:ARG:NH2	1:B:3197:LEU:HB3	2.27	0.48
1:B:4622:SER:OG	1:B:4624:ASP:OD1	2.25	0.48
1:C:370:LEU:HD23	1:C:395:HIS:HB3	1.94	0.48
1:C:1931:ASP:OD1	1:C:1932:PHE:N	2.47	0.48
1:C:3164:GLY:N	1:C:3244:SER:CA	2.77	0.48
1:C:3182:SER:OG	1:C:3185:ASN:ND2	2.40	0.48
1:D:370:LEU:HD23	1:D:395:HIS:HB3	1.94	0.48
1:D:4634:VAL:HG22	1:D:4640:PHE:HD1	1.77	0.48
3:J:122:VAL:O	3:J:125:MET:HG3	2.13	0.48
3:L:100:TYR:HD1	3:L:138:ASN:HB3	1.78	0.48
1:A:3031:ASN:HA	1:A:3034:HIS:NE2	2.29	0.48
1:A:3164:GLY:N	1:A:3244:SER:CA	2.77	0.48
1:A:4249:ARG:HA	1:B:4707:MET:HE3	1.94	0.48
1:A:4694:LEU:HB2	1:D:4268:MET:HE2	1.94	0.48
1:B:661:LEU:HD23	1:B:673:TRP:CD1	2.48	0.48
1:B:976:TYR:O	1:B:978:PRO:HD3	2.13	0.48
1:B:2443:PRO:HD3	1:B:2512:MET:HG2	1.96	0.48
1:B:2575:SER:O	1:B:2579:GLN:HG2	2.13	0.48
1:B:3584:LYS:HG2	3:J:145:MET:HA	1.94	0.48
1:C:798:ILE:HD12	1:C:800:VAL:HG22	1.96	0.48
1:C:3240:PRO:O	1:C:3243:CYS:HB2	2.13	0.48
1:C:3925:GLN:NE2	1:C:4934:THR:HA	2.29	0.48
1:D:937:LEU:O	1:D:940:LEU:HG	2.13	0.48
1:D:1931:ASP:OD1	1:D:1932:PHE:N	2.47	0.48
1:D:3049:GLY:HA3	1:D:3054:LYS:HE3	1.95	0.48
1:D:3192:ARG:HA	1:D:3197:LEU:HD12	1.95	0.48
1:D:4943:MET:HE1	1:D:4950:GLU:HB2	1.94	0.48
1:A:1035:TYR:O	1:A:1043:LYS:NZ	2.25	0.48
1:A:2432:LEU:O	1:A:2436:ILE:HG13	2.12	0.48
1:A:4521:LYS:HE2	1:A:4521:LYS:HB2	1.61	0.48
1:B:1833:ILE:O	1:B:1835:HIS:ND1	2.46	0.48
1:B:3109:PHE:HA	1:B:3112:ILE:HG22	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:470:LEU:HB2	1:C:475:LYS:HG3	1.95	0.48
1:C:3164:GLY:CA	1:C:3247:SER:N	2.76	0.48
1:C:4634:VAL:HG22	1:C:4640:PHE:HD1	1.77	0.48
1:C:4735:ASN:HB3	1:C:4738:PHE:CD2	2.48	0.48
1:D:3031:ASN:HA	1:D:3034:HIS:NE2	2.29	0.48
1:D:4268:MET:HA	1:D:4271:VAL:HB	1.96	0.48
1:A:967:PRO:O	1:A:971:GLN:HG2	2.14	0.48
1:A:3162:PHE:O	1:A:3245:TYR:CB	2.61	0.48
1:A:3935:LEU:HD23	1:A:3940:LEU:HD22	1.96	0.48
1:A:4011:GLU:HG3	1:A:4015:LYS:HZ2	1.79	0.48
1:A:4268:MET:HA	1:A:4271:VAL:HB	1.96	0.48
3:I:100:TYR:HD1	3:I:138:ASN:HB3	1.78	0.48
1:B:2162:MET:HB3	1:B:2167:MET:HE2	1.96	0.48
1:B:3031:ASN:HA	1:B:3034:HIS:NE2	2.29	0.48
1:C:1442:TRP:HB3	1:C:1487:MET:HE2	1.96	0.48
1:C:2443:PRO:HD3	1:C:2512:MET:HG2	1.96	0.48
1:C:2575:SER:O	1:C:2579:GLN:HG2	2.13	0.48
1:C:3179:ASN:O	1:C:3182:SER:OG	2.24	0.48
1:C:4795:LYS:HA	1:C:4795:LYS:HD2	1.67	0.48
1:D:332:ARG:NH1	1:D:339:ASP:OD1	2.42	0.48
1:D:1502:ASN:OD1	1:D:1503:ASN:N	2.46	0.48
1:D:1953:MET:HA	1:D:1953:MET:CE	2.44	0.48
1:D:2192:MET:HA	1:D:2192:MET:CE	2.44	0.48
1:D:3148:VAL:HG12	1:D:3152:ARG:NH1	2.29	0.48
1:D:3164:GLY:N	1:D:3244:SER:CA	2.77	0.48
1:A:661:LEU:HD23	1:A:673:TRP:CD1	2.48	0.48
1:A:969:ASN:OD1	1:A:970:TYR:N	2.46	0.48
1:A:1833:ILE:O	1:A:1835:HIS:ND1	2.46	0.48
1:A:2772:ARG:O	1:A:2776:LYS:HG2	2.13	0.48
1:A:3165:ALA:HA	1:A:3248:ARG:CA	2.44	0.48
1:A:3192:ARG:HD2	1:A:3197:LEU:HD12	1.94	0.48
1:A:4046:ARG:HG3	1:A:4050:LYS:NZ	2.29	0.48
1:A:4177:VAL:HG11	1:A:4880:VAL:HA	1.96	0.48
1:A:4735:ASN:HB3	1:A:4738:PHE:CD2	2.48	0.48
1:A:4829:ASP:N	1:D:4822:ARG:HH12	2.12	0.48
2:G:19:LYS:HA	2:G:19:LYS:CE	2.44	0.48
1:B:1953:MET:HA	1:B:1953:MET:CE	2.44	0.48
1:B:2415:GLU:OE1	1:B:2418:ARG:NH1	2.46	0.48
1:B:3240:PRO:O	1:B:3243:CYS:HB2	2.13	0.48
1:C:3049:GLY:HA3	1:C:3054:LYS:HE3	1.95	0.48
1:D:2200:LEU:HD22	1:D:2214:MET:SD	2.53	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2772:ARG:O	1:D:2776:LYS:HG2	2.13	0.48
1:D:3071:THR:HA	1:D:3074:ASN:ND2	2.29	0.48
1:D:4608:ARG:NH2	1:D:4644:TYR:OH	2.45	0.48
1:A:1688:ALA:HA	1:A:1694:MET:HE3	1.96	0.48
1:A:3164:GLY:CA	1:A:3247:SER:N	2.76	0.48
2:E:78:THR:OG1	2:E:80:ASP:OD1	2.29	0.48
1:B:882:ARG:HA	1:B:885:LEU:HB3	1.95	0.48
1:B:1682:GLU:OE2	1:B:1783:PRO:HG2	2.14	0.48
1:B:2200:LEU:HD22	1:B:2214:MET:SD	2.53	0.48
1:B:3071:THR:HA	1:B:3074:ASN:ND2	2.29	0.48
1:B:3165:ALA:HA	1:B:3248:ARG:CA	2.44	0.48
1:C:964:MET:SD	1:C:964:MET:N	2.81	0.48
1:C:1721:MET:HE1	1:C:2127:ARG:HH11	1.78	0.48
1:C:2162:MET:HB3	1:C:2167:MET:HE2	1.95	0.48
1:C:3845:LEU:HD23	1:C:3848:GLU:HG3	1.96	0.48
1:D:976:TYR:O	1:D:978:PRO:HD3	2.13	0.48
1:D:1682:GLU:OE2	1:D:1783:PRO:HG2	2.14	0.48
1:D:3072:MET:HE1	1:D:3136:SER:O	2.12	0.48
1:D:3072:MET:HE2	1:D:3072:MET:HB3	1.71	0.48
1:D:3183:ILE:O	1:D:3187:LYS:HG2	2.14	0.48
1:D:4046:ARG:HG3	1:D:4050:LYS:NZ	2.29	0.48
3:J:100:TYR:HD1	3:J:138:ASN:HB3	1.78	0.48
3:K:138:ASN:OD1	3:K:141:GLU:N	2.39	0.48
1:A:798:ILE:HD12	1:A:800:VAL:HG22	1.96	0.47
1:A:1442:TRP:HB3	1:A:1487:MET:HE2	1.96	0.47
1:B:1079:SER:HB3	1:B:1084:ARG:HH22	1.77	0.47
1:B:2926:LEU:HD12	1:B:3003:MET:HE3	1.96	0.47
1:B:3935:LEU:HD23	1:B:3940:LEU:HD22	1.96	0.47
1:B:4045:LYS:HD2	1:B:4067:LEU:HD13	1.96	0.47
1:B:4735:ASN:HB3	1:B:4738:PHE:CD2	2.48	0.47
1:C:2322:ARG:NH2	1:C:2415:GLU:OE2	2.47	0.47
1:D:258:ARG:NH1	1:D:317:MET:HA	2.29	0.47
1:D:1161:VAL:HG21	1:D:1225:LYS:HE3	1.95	0.47
1:D:1442:TRP:HB3	1:D:1487:MET:HE2	1.96	0.47
1:D:2214:MET:HA	1:D:2214:MET:CE	2.42	0.47
3:L:122:VAL:O	3:L:125:MET:HG3	2.13	0.47
1:A:258:ARG:NH1	1:A:317:MET:HA	2.29	0.47
1:A:1502:ASN:OD1	1:A:1503:ASN:N	2.46	0.47
1:A:1953:MET:HA	1:A:1953:MET:CE	2.44	0.47
1:A:3240:PRO:O	1:A:3243:CYS:HB2	2.13	0.47
1:A:3845:LEU:HD23	1:A:3848:GLU:HG3	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4045:LYS:HD2	1:A:4067:LEU:HD13	1.96	0.47
1:A:4622:SER:OG	1:A:4624:ASP:OD1	2.25	0.47
1:B:1442:TRP:HB3	1:B:1487:MET:HE2	1.96	0.47
1:B:3148:VAL:HG12	1:B:3152:ARG:NH1	2.29	0.47
1:B:3925:GLN:NE2	1:B:4934:THR:HA	2.29	0.47
1:B:4011:GLU:OE1	1:B:4121:LEU:HB3	2.15	0.47
1:B:4177:VAL:HG11	1:B:4880:VAL:HA	1.96	0.47
1:C:2415:GLU:OE1	1:C:2418:ARG:NH1	2.46	0.47
1:C:2798:MET:HB3	1:D:1498:GLN:HE22	1.80	0.47
1:C:3312:PRO:O	1:C:3315:LEU:N	2.46	0.47
1:D:255:GLU:OE2	1:D:255:GLU:N	2.45	0.47
1:D:967:PRO:O	1:D:971:GLN:HG2	2.14	0.47
1:D:1688:ALA:HA	1:D:1694:MET:HE3	1.96	0.47
1:D:3596:LYS:HE2	3:L:19:LEU:HB3	1.96	0.47
1:D:4082:GLU:HA	1:D:4085:LYS:HG2	1.95	0.47
1:D:4827:ILE:O	1:D:4831:ILE:HG12	2.15	0.47
1:A:1550:PRO:HD2	1:D:2830:ASN:OD1	2.14	0.47
1:A:2322:ARG:NH2	1:A:2415:GLU:OE2	2.47	0.47
1:A:3148:VAL:HG12	1:A:3152:ARG:NH1	2.29	0.47
1:A:4694:LEU:HB2	1:D:4268:MET:HE3	1.96	0.47
2:F:78:THR:OG1	2:F:80:ASP:OD1	2.29	0.47
3:I:122:VAL:O	3:I:125:MET:HG3	2.13	0.47
1:B:1931:ASP:OD1	1:B:1932:PHE:N	2.47	0.47
1:B:3900:GLU:OE1	1:B:3904:ARG:NH2	2.45	0.47
1:B:4046:ARG:HG3	1:B:4050:LYS:NZ	2.29	0.47
1:C:882:ARG:HA	1:C:885:LEU:HB3	1.95	0.47
1:C:969:ASN:OD1	1:C:970:TYR:N	2.47	0.47
1:C:2207:SER:HB3	1:C:2210:ASN:ND2	2.28	0.47
1:C:2926:LEU:HD12	1:C:3003:MET:HE3	1.96	0.47
1:C:3063:ASN:ND2	1:C:3066:GLU:OE2	2.41	0.47
1:C:4011:GLU:OE1	1:C:4121:LEU:HB3	2.15	0.47
1:D:3935:LEU:HD23	1:D:3940:LEU:HD22	1.96	0.47
3:K:100:TYR:HD1	3:K:138:ASN:HB3	1.78	0.47
1:A:2162:MET:HB3	1:A:2167:MET:HE2	1.95	0.47
1:A:2691:LYS:HB3	1:A:2694:SER:OG	2.15	0.47
1:A:3183:ILE:O	1:A:3187:LYS:HG2	2.14	0.47
2:G:29:GLY:N	2:G:38:ASP:O	2.37	0.47
1:B:1491:GLY:O	1:B:1494:MET:HG2	2.15	0.47
1:B:2691:LYS:HB3	1:B:2694:SER:OG	2.15	0.47
1:C:258:ARG:NH1	1:C:317:MET:HA	2.29	0.47
1:C:2704:GLN:OE1	1:C:2704:GLN:N	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2758:LYS:HE2	1:C:2763:LEU:HA	1.95	0.47
1:C:3183:ILE:O	1:C:3187:LYS:HG2	2.14	0.47
1:C:3190:ARG:HH21	1:C:3194:ALA:HB2	1.80	0.47
1:C:3935:LEU:HD23	1:C:3940:LEU:HD22	1.96	0.47
1:C:4641:PRO:HB3	1:C:4644:TYR:HB3	1.97	0.47
1:D:2207:SER:HB3	1:D:2210:ASN:ND2	2.28	0.47
1:A:441:LYS:HD3	1:A:443:SER:H	1.80	0.47
1:A:1989:PRO:O	1:A:1993:ARG:HG3	2.13	0.47
1:A:2418:ARG:NH2	1:B:156:GLU:OE2	2.42	0.47
1:A:2891:ASP:OD1	1:A:2892:ILE:N	2.48	0.47
1:A:3109:PHE:HA	1:A:3112:ILE:HG22	1.96	0.47
1:A:3179:ASN:O	1:A:3182:SER:OG	2.24	0.47
1:B:987:LYS:HZ3	1:B:989:THR:HA	1.80	0.47
1:B:1721:MET:HE1	1:B:2127:ARG:HH11	1.78	0.47
1:B:2886:ARG:HG2	1:B:2890:GLN:OE1	2.15	0.47
1:B:2891:ASP:OD1	1:B:2892:ILE:N	2.48	0.47
1:B:4481:TRP:HA	1:B:4484:ILE:HG12	1.97	0.47
1:C:2886:ARG:HG2	1:C:2890:GLN:OE1	2.15	0.47
1:C:4045:LYS:HD2	1:C:4067:LEU:HD13	1.96	0.47
1:D:2886:ARG:HG2	1:D:2890:GLN:OE1	2.15	0.47
1:D:3164:GLY:CA	1:D:3247:SER:N	2.76	0.47
1:D:4011:GLU:OE1	1:D:4121:LEU:HB3	2.15	0.47
1:A:2142:MET:HG3	1:A:2192:MET:SD	2.55	0.47
1:B:967:PRO:O	1:B:971:GLN:HG2	2.14	0.47
1:B:2142:MET:HG3	1:B:2192:MET:SD	2.55	0.47
1:B:3845:LEU:HD23	1:B:3848:GLU:HG3	1.95	0.47
1:B:4055:HIS:C	1:B:4057:HIS:H	2.23	0.47
1:C:2172:MET:O	1:C:2176:VAL:N	2.43	0.47
1:C:3148:VAL:HG12	1:C:3152:ARG:NH1	2.29	0.47
1:C:3161:ALA:N	1:C:3244:SER:HB3	2.30	0.47
1:C:3165:ALA:HA	1:C:3248:ARG:CA	2.44	0.47
1:C:3183:ILE:HG13	1:C:3187:LYS:HZ2	1.77	0.47
1:D:2322:ARG:NH2	1:D:2415:GLU:OE2	2.47	0.47
1:D:2891:ASP:OD1	1:D:2892:ILE:N	2.48	0.47
1:D:4055:HIS:C	1:D:4057:HIS:H	2.23	0.47
1:A:125:TYR:O	1:A:414:ARG:NH1	2.48	0.47
1:A:1491:GLY:O	1:A:1494:MET:HG2	2.15	0.47
1:A:1682:GLU:OE2	1:A:1783:PRO:HG2	2.14	0.47
1:A:1914:CYS:O	1:A:1918:VAL:HG23	2.15	0.47
1:A:2062:ILE:HG21	1:A:2087:LEU:HG	1.96	0.47
1:A:2443:PRO:HD3	1:A:2512:MET:HG2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3071:THR:HA	1:A:3074:ASN:ND2	2.29	0.47
1:A:4011:GLU:OE1	1:A:4121:LEU:HB3	2.15	0.47
1:A:4055:HIS:C	1:A:4057:HIS:H	2.23	0.47
1:A:4481:TRP:HA	1:A:4484:ILE:HG12	1.97	0.47
1:A:4608:ARG:NH2	1:A:4644:TYR:OH	2.45	0.47
2:H:19:LYS:HA	2:H:19:LYS:CE	2.44	0.47
1:B:2062:ILE:HG21	1:B:2087:LEU:HG	1.96	0.47
1:B:2123:LEU:HG	1:B:2127:ARG:HD2	1.97	0.47
1:B:3063:ASN:ND2	1:B:3066:GLU:OE2	2.41	0.47
1:B:4641:PRO:HB3	1:B:4644:TYR:HB3	1.97	0.47
1:C:255:GLU:OE2	1:C:255:GLU:N	2.45	0.47
1:C:1491:GLY:O	1:C:1494:MET:HG2	2.15	0.47
1:C:1682:GLU:OE2	1:C:1783:PRO:HG2	2.14	0.47
1:C:1833:ILE:O	1:C:1835:HIS:ND1	2.46	0.47
1:C:1945:ASN:O	1:C:1949:GLN:HG2	2.15	0.47
1:C:2062:ILE:HG21	1:C:2087:LEU:HG	1.96	0.47
1:C:2214:MET:HA	1:C:2214:MET:CE	2.42	0.47
1:C:2891:ASP:OD1	1:C:2892:ILE:N	2.48	0.47
1:C:3031:ASN:HA	1:C:3034:HIS:NE2	2.29	0.47
1:C:4107:GLU:OE1	1:C:4149:TYR:OH	2.20	0.47
1:C:4827:ILE:O	1:C:4831:ILE:HG12	2.15	0.47
1:D:125:TYR:O	1:D:414:ARG:NH1	2.48	0.47
1:D:1945:ASN:O	1:D:1949:GLN:HG2	2.15	0.47
1:D:3240:PRO:O	1:D:3243:CYS:HB2	2.13	0.47
1:D:4481:TRP:HA	1:D:4484:ILE:HG12	1.97	0.47
1:A:882:ARG:HH22	1:A:936:SER:HB2	1.79	0.47
1:A:1795:LEU:HD13	1:A:1842:ILE:HD11	1.97	0.47
1:A:2356:ASP:OD2	1:A:2358:SER:OG	2.31	0.47
1:A:2926:LEU:HD12	1:A:3003:MET:HE3	1.96	0.47
1:A:4283:PHE:CD2	1:B:4491:LEU:HD13	2.50	0.47
1:A:4827:ILE:O	1:A:4831:ILE:HG12	2.15	0.47
2:G:79:PRO:O	2:G:84:GLY:HA2	2.15	0.47
2:H:79:PRO:O	2:H:84:GLY:HA2	2.15	0.47
1:B:258:ARG:NH1	1:B:317:MET:HA	2.29	0.47
1:B:1945:ASN:O	1:B:1949:GLN:HG2	2.15	0.47
1:C:4046:ARG:HG3	1:C:4050:LYS:NZ	2.29	0.47
1:D:1989:PRO:O	1:D:1993:ARG:HG3	2.13	0.47
1:D:2933:VAL:HB	1:D:3010:LYS:HE3	1.97	0.47
2:F:79:PRO:O	2:F:84:GLY:HA2	2.15	0.47
1:B:882:ARG:HH22	1:B:936:SER:HB2	1.79	0.47
1:B:3017:HIS:C	1:B:3018:ARG:HD2	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3237:VAL:O	1:B:3240:PRO:HD2	2.15	0.47
1:B:4088:HIS:O	1:B:4092:LYS:N	2.39	0.47
1:B:4268:MET:HA	1:B:4271:VAL:HB	1.96	0.47
1:C:967:PRO:O	1:C:971:GLN:HG2	2.14	0.47
1:C:2856:LYS:O	1:C:2860:LEU:HD23	2.15	0.47
1:C:3017:HIS:C	1:C:3018:ARG:HD2	2.40	0.47
1:C:3195:LEU:C	1:C:3197:LEU:H	2.23	0.47
1:C:3237:VAL:O	1:C:3240:PRO:HD2	2.15	0.47
1:D:1249:MET:HE3	1:D:1599:MET:HE1	1.97	0.47
1:D:3322:LEU:O	1:D:3326:LEU:CB	2.63	0.47
1:A:2933:VAL:HB	1:A:3010:LYS:HE3	1.97	0.47
1:A:3113:GLY:HA2	1:A:3248:ARG:NH2	2.30	0.47
1:A:3925:GLN:NE2	1:A:4934:THR:HA	2.29	0.47
1:B:125:TYR:O	1:B:414:ARG:NH1	2.48	0.47
1:B:255:GLU:OE2	1:B:255:GLU:N	2.45	0.47
1:B:2704:GLN:OE1	1:B:2704:GLN:N	2.47	0.47
1:B:3161:ALA:N	1:B:3244:SER:HB3	2.30	0.47
1:B:3584:LYS:HB3	3:J:145:MET:O	2.15	0.47
1:C:2123:LEU:HG	1:C:2127:ARG:HD2	1.97	0.47
1:C:3322:LEU:O	1:C:3326:LEU:CB	2.63	0.47
1:C:4268:MET:HA	1:C:4271:VAL:HB	1.96	0.47
1:D:1229:ILE:O	1:D:1233:GLN:NE2	2.37	0.47
1:D:3161:ALA:O	1:D:3244:SER:O	2.33	0.47
1:D:3165:ALA:HA	1:D:3248:ARG:CA	2.44	0.47
1:D:4177:VAL:HG11	1:D:4880:VAL:HA	1.96	0.47
1:A:1945:ASN:O	1:A:1949:GLN:HG2	2.15	0.46
1:A:2856:LYS:O	1:A:2860:LEU:HD23	2.15	0.46
1:A:3882:GLN:HG2	1:A:3943:ALA:HA	1.98	0.46
1:A:4707:MET:HG3	1:D:4252:ILE:CG2	2.44	0.46
1:B:441:LYS:HD3	1:B:443:SER:H	1.80	0.46
1:B:448:PRO:HB2	1:B:451:SER:OG	2.15	0.46
1:B:3106:SER:O	1:B:3110:GLU:HG2	2.15	0.46
1:B:3183:ILE:O	1:B:3187:LYS:HG2	2.14	0.46
1:B:3219:VAL:O	1:B:3223:GLU:OE1	2.33	0.46
1:B:4897:TYR:OH	1:B:4963:GLU:OE1	2.22	0.46
1:C:448:PRO:HB2	1:C:451:SER:OG	2.15	0.46
1:C:562:LEU:HG	1:C:600:LEU:HD13	1.97	0.46
1:C:1795:LEU:HD13	1:C:1842:ILE:HD11	1.97	0.46
1:C:2142:MET:HG3	1:C:2192:MET:SD	2.55	0.46
1:C:3062:ASP:HB2	1:C:3132:ARG:HH22	1.80	0.46
1:C:4906:GLU:OE2	1:D:4182:GLU:HG3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:448:PRO:HB2	1:D:451:SER:OG	2.15	0.46
1:D:3106:SER:O	1:D:3110:GLU:HG2	2.15	0.46
1:A:1249:MET:HE3	1:A:1599:MET:HE1	1.97	0.46
1:A:1978:ASN:HB3	1:A:1983:LYS:HE2	1.98	0.46
1:A:2605:MET:HE3	1:A:2605:MET:HB3	1.74	0.46
1:A:3069:GLU:O	1:A:3073:GLU:OE1	2.34	0.46
2:E:79:PRO:O	2:E:84:GLY:HA2	2.15	0.46
3:I:145:MET:HE2	3:I:145:MET:HB2	1.69	0.46
1:C:1914:CYS:O	1:C:1918:VAL:HG23	2.15	0.46
1:C:2691:LYS:HB3	1:C:2694:SER:OG	2.15	0.46
1:C:2830:ASN:HB3	1:D:1434:PRO:O	2.15	0.46
1:C:4481:TRP:HA	1:C:4484:ILE:HG12	1.97	0.46
1:D:882:ARG:HH22	1:D:936:SER:HB2	1.79	0.46
1:D:1491:GLY:O	1:D:1494:MET:HG2	2.15	0.46
1:D:3069:GLU:O	1:D:3073:GLU:OE1	2.34	0.46
1:D:3161:ALA:N	1:D:3244:SER:HB3	2.30	0.46
1:D:3190:ARG:HH21	1:D:3194:ALA:HB2	1.80	0.46
1:D:3845:LEU:HD23	1:D:3848:GLU:HG3	1.95	0.46
3:K:69:PHE:O	3:K:73:MET:HG2	2.16	0.46
1:A:2123:LEU:HG	1:A:2127:ARG:HD2	1.97	0.46
1:A:3190:ARG:HH21	1:A:3194:ALA:HB2	1.80	0.46
1:A:3237:VAL:O	1:A:3240:PRO:HD2	2.15	0.46
1:A:4245:LEU:CD1	1:B:4626:ILE:HG13	2.45	0.46
1:B:2856:LYS:O	1:B:2860:LEU:HD23	2.16	0.46
1:B:3164:GLY:N	1:B:3244:SER:CA	2.77	0.46
1:C:2933:VAL:HB	1:C:3010:LYS:HE3	1.97	0.46
1:C:3113:GLY:HA2	1:C:3248:ARG:NH2	2.30	0.46
1:C:3316:LYS:O	1:C:3317:THR:OG1	2.24	0.46
1:D:756:SER:OG	1:D:769:ARG:HB3	2.16	0.46
1:D:1978:ASN:HB3	1:D:1983:LYS:HE2	1.98	0.46
1:D:2691:LYS:HB3	1:D:2694:SER:OG	2.15	0.46
1:D:4045:LYS:HD2	1:D:4067:LEU:HD13	1.96	0.46
1:A:2704:GLN:OE1	1:A:2704:GLN:N	2.46	0.46
1:A:3159:LEU:O	1:A:3241:MET:HA	2.16	0.46
1:B:880:ARG:NH1	1:B:881:ILE:HB	2.31	0.46
1:B:2586:GLN:NE2	1:B:2636:GLU:OE1	2.48	0.46
1:C:882:ARG:HH22	1:C:936:SER:HB2	1.79	0.46
1:C:3219:VAL:O	1:C:3223:GLU:OE1	2.33	0.46
1:C:4177:VAL:HG11	1:C:4880:VAL:HA	1.96	0.46
1:C:4521:LYS:HB2	1:C:4521:LYS:HE2	1.61	0.46
1:D:131:CYS:SG	1:D:150:GLN:HB2	2.56	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2142:MET:HG3	1:D:2192:MET:SD	2.55	0.46
1:D:2443:PRO:HD3	1:D:2512:MET:HG2	1.95	0.46
3:L:57:ASP:OD2	3:L:62:GLY:N	2.40	0.46
3:L:69:PHE:O	3:L:73:MET:HG2	2.16	0.46
1:A:448:PRO:HB2	1:A:451:SER:OG	2.15	0.46
1:A:880:ARG:NH1	1:A:881:ILE:HB	2.31	0.46
1:A:2104:LYS:NZ	1:A:2164:ALA:O	2.47	0.46
1:A:2841:ALA:HB2	1:A:2893:LEU:HD12	1.98	0.46
1:A:3975:GLN:O	1:A:3979:VAL:HG23	2.16	0.46
1:A:4268:MET:HE1	1:B:4481:TRP:CH2	2.50	0.46
1:B:3161:ALA:O	1:B:3244:SER:O	2.33	0.46
1:B:3183:ILE:HG13	1:B:3187:LYS:HZ2	1.79	0.46
1:B:3190:ARG:HH21	1:B:3194:ALA:HB2	1.80	0.46
1:B:4827:ILE:O	1:B:4831:ILE:HG12	2.15	0.46
1:C:131:CYS:SG	1:C:150:GLN:HB2	2.56	0.46
1:C:880:ARG:NH1	1:C:881:ILE:HB	2.31	0.46
1:C:3069:GLU:O	1:C:3073:GLU:OE1	2.34	0.46
1:C:3106:SER:O	1:C:3110:GLU:HG2	2.16	0.46
1:D:1176:THR:HG22	1:D:1181:ILE:HG13	1.98	0.46
1:D:1914:CYS:O	1:D:1918:VAL:HG23	2.15	0.46
1:D:2926:LEU:HD12	1:D:3003:MET:HE3	1.96	0.46
1:D:3017:HIS:C	1:D:3018:ARG:HD2	2.40	0.46
1:D:3113:GLY:HA2	1:D:3248:ARG:NH2	2.30	0.46
1:D:3322:LEU:HB3	1:D:3323:MET:CE	2.46	0.46
1:A:2192:MET:HA	1:A:2192:MET:CE	2.44	0.46
1:A:2586:GLN:NE2	1:A:2636:GLU:OE1	2.48	0.46
1:A:2927:GLN:O	1:A:2931:ARG:HD3	2.16	0.46
1:A:3106:SER:O	1:A:3110:GLU:HG2	2.15	0.46
1:A:3161:ALA:N	1:A:3244:SER:HB3	2.30	0.46
1:A:3219:VAL:O	1:A:3223:GLU:OE1	2.33	0.46
1:A:3297:LYS:HE2	3:I:136:GLN:HB2	1.98	0.46
1:A:4667:SER:OG	1:A:4672:MET:O	2.34	0.46
1:B:769:ARG:HH21	1:B:816:PRO:HG3	1.80	0.46
1:B:1795:LEU:HD13	1:B:1842:ILE:HD11	1.97	0.46
1:B:3069:GLU:O	1:B:3073:GLU:OE1	2.33	0.46
1:B:3113:GLY:HA2	1:B:3248:ARG:NH2	2.30	0.46
1:B:3322:LEU:HB3	1:B:3323:MET:CE	2.46	0.46
1:C:2927:GLN:O	1:C:2931:ARG:HD3	2.16	0.46
1:C:3002:GLU:HB3	1:C:3044:THR:HG21	1.97	0.46
1:C:3322:LEU:HB3	1:C:3323:MET:CE	2.46	0.46
1:D:2701:PHE:CD1	1:D:2873:PRO:HG3	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4194:GLU:HG2	1:D:4645:TRP:HZ3	1.80	0.46
1:D:4641:PRO:HB3	1:D:4644:TYR:HB3	1.97	0.46
1:A:2701:PHE:CD1	1:A:2873:PRO:HG3	2.51	0.46
1:A:2886:ARG:HG2	1:A:2890:GLN:OE1	2.15	0.46
1:A:3195:LEU:C	1:A:3197:LEU:H	2.23	0.46
1:A:3322:LEU:HB3	1:A:3323:MET:CE	2.46	0.46
1:A:4897:TYR:OH	1:A:4963:GLU:OE1	2.22	0.46
2:E:29:GLY:N	2:E:38:ASP:O	2.37	0.46
3:I:69:PHE:O	3:I:73:MET:HG2	2.16	0.46
1:B:1978:ASN:HB3	1:B:1983:LYS:HE2	1.98	0.46
1:B:2465:LYS:O	1:B:2469:VAL:HG23	2.16	0.46
1:B:2841:ALA:HB2	1:B:2893:LEU:HD12	1.98	0.46
1:B:4155:SER:O	1:B:4159:GLN:HG2	2.16	0.46
1:C:240:HIS:ND1	1:C:240:HIS:C	2.74	0.46
1:C:3159:LEU:O	1:C:3241:MET:HA	2.16	0.46
1:D:513:HIS:O	1:D:517:VAL:HG23	2.16	0.46
1:D:2856:LYS:O	1:D:2860:LEU:HD23	2.15	0.46
1:D:3062:ASP:HB2	1:D:3132:ARG:HH22	1.81	0.46
1:D:3237:VAL:O	1:D:3240:PRO:HD2	2.15	0.46
1:D:3882:GLN:HG2	1:D:3943:ALA:HA	1.98	0.46
1:D:3925:GLN:NE2	1:D:4934:THR:HA	2.29	0.46
1:D:4663:ARG:NH1	1:D:4663:ARG:HB2	2.31	0.46
1:A:655:MET:HE2	1:A:834:VAL:HG12	1.98	0.46
1:A:842:GLN:HG2	1:A:1605:LYS:HE3	1.97	0.46
1:A:2582:PRO:HG3	1:A:2617:CYS:SG	2.56	0.46
1:A:3062:ASP:HB2	1:A:3132:ARG:HH22	1.81	0.46
1:A:3830:LEU:HD13	1:A:3833:ASP:OD1	2.16	0.46
1:A:4088:HIS:O	1:A:4092:LYS:N	2.39	0.46
1:B:63:SER:HB3	1:B:276:ARG:CZ	2.45	0.46
1:B:513:HIS:O	1:B:517:VAL:HG23	2.16	0.46
1:B:2582:PRO:HG3	1:B:2617:CYS:SG	2.56	0.46
1:B:3808:PHE:HB2	1:B:3829:VAL:HG11	1.98	0.46
1:B:4663:ARG:NH1	1:B:4663:ARG:HB2	2.31	0.46
1:B:4667:SER:OG	1:B:4672:MET:O	2.34	0.46
1:C:2841:ALA:HB2	1:C:2893:LEU:HD12	1.98	0.46
1:C:3001:LYS:NZ	1:C:3041:ASP:OD2	2.34	0.46
1:C:3301:VAL:HA	1:C:3304:GLN:OE1	2.16	0.46
1:C:3639:LYS:HG3	1:C:4683:ARG:HH22	1.81	0.46
1:C:3882:GLN:HB3	1:C:3947:PHE:CE2	2.51	0.46
1:D:2927:GLN:O	1:D:2931:ARG:HD3	2.16	0.46
1:D:3183:ILE:HG13	1:D:3187:LYS:HZ2	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3195:LEU:C	1:D:3197:LEU:H	2.23	0.46
1:D:3219:VAL:O	1:D:3223:GLU:OE1	2.33	0.46
1:D:4264:LEU:HA	1:D:4267:GLN:OE1	2.16	0.46
1:A:932:ASN:HA	1:A:935:MET:HG2	1.98	0.46
1:A:1956:ALA:O	1:A:1966:ARG:NH1	2.49	0.46
1:A:3808:PHE:HB2	1:A:3829:VAL:HG11	1.98	0.46
1:A:4264:LEU:HA	1:A:4267:GLN:OE1	2.16	0.46
1:B:131:CYS:SG	1:B:150:GLN:HB2	2.56	0.46
1:B:1229:ILE:O	1:B:1233:GLN:NE2	2.37	0.46
1:B:2701:PHE:CD1	1:B:2873:PRO:HG3	2.51	0.46
1:B:2759:PRO:HG2	1:B:2762:LEU:HD12	1.98	0.46
1:B:2798:MET:SD	1:C:1497:GLY:HA3	2.56	0.46
1:B:3019:ILE:H	1:B:3019:ILE:HD12	1.81	0.46
1:C:655:MET:HE2	1:C:834:VAL:HG12	1.98	0.46
1:C:2465:LYS:O	1:C:2469:VAL:HG23	2.16	0.46
1:C:2918:GLU:HA	1:C:2923:TYR:CE1	2.51	0.46
1:C:3161:ALA:O	1:C:3244:SER:O	2.33	0.46
1:C:4055:HIS:C	1:C:4057:HIS:H	2.23	0.46
1:C:4194:GLU:HG2	1:C:4645:TRP:HZ3	1.80	0.46
1:C:4818:TYR:HA	1:D:4848:ILE:HD11	1.98	0.46
1:D:441:LYS:HD3	1:D:443:SER:H	1.79	0.46
1:D:769:ARG:HH21	1:D:816:PRO:HG3	1.80	0.46
1:D:1685:LEU:O	1:D:1689:ILE:HG12	2.16	0.46
1:D:1795:LEU:HD13	1:D:1842:ILE:HD11	1.97	0.46
1:D:2723:LYS:HD3	1:D:2899:ASN:OD1	2.16	0.46
1:A:63:SER:HB3	1:A:276:ARG:CZ	2.45	0.46
1:A:131:CYS:SG	1:A:150:GLN:HB2	2.56	0.46
1:A:240:HIS:ND1	1:A:240:HIS:C	2.74	0.46
1:A:562:LEU:HG	1:A:600:LEU:HD13	1.97	0.46
1:A:1685:LEU:O	1:A:1689:ILE:HG12	2.16	0.46
1:A:2767:GLU:O	1:A:2770:ILE:HG12	2.16	0.46
1:A:3882:GLN:HB3	1:A:3947:PHE:CE2	2.51	0.46
1:A:4280:VAL:HG22	1:B:4487:TYR:HE2	1.81	0.46
1:A:4641:PRO:HB3	1:A:4644:TYR:HB3	1.97	0.46
1:B:1914:CYS:O	1:B:1918:VAL:HG23	2.15	0.46
1:B:2322:ARG:NH2	1:B:2415:GLU:OE2	2.47	0.46
1:B:3322:LEU:O	1:B:3326:LEU:CB	2.63	0.46
1:B:3639:LYS:HG3	1:B:4683:ARG:HH22	1.81	0.46
1:B:3830:LEU:HD13	1:B:3833:ASP:OD1	2.16	0.46
1:C:125:TYR:O	1:C:414:ARG:NH1	2.48	0.46
1:C:441:LYS:HD3	1:C:443:SER:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2586:GLN:NE2	1:C:2636:GLU:OE1	2.48	0.46
1:D:71:GLN:HB3	1:D:73:LEU:HD23	1.98	0.46
1:D:562:LEU:HG	1:D:600:LEU:HD13	1.97	0.46
1:D:2062:ILE:HG21	1:D:2087:LEU:HG	1.96	0.46
1:D:2171:VAL:O	1:D:2174:VAL:HG22	2.16	0.46
1:D:2841:ALA:HB2	1:D:2893:LEU:HD12	1.98	0.46
1:A:2465:LYS:O	1:A:2469:VAL:HG23	2.16	0.45
1:A:3589:LYS:HB3	1:A:3589:LYS:HE2	1.39	0.45
1:B:2933:VAL:HB	1:B:3010:LYS:HE3	1.97	0.45
1:B:3195:LEU:C	1:B:3197:LEU:H	2.23	0.45
1:B:3664:LEU:O	1:B:3668:ILE:HG13	2.16	0.45
1:B:4079:ASP:O	1:B:4082:GLU:HG3	2.16	0.45
1:C:71:GLN:HB3	1:C:73:LEU:HD23	1.98	0.45
1:C:1249:MET:HE3	1:C:1599:MET:HE1	1.97	0.45
1:C:1685:LEU:O	1:C:1689:ILE:HG12	2.16	0.45
1:C:2171:VAL:O	1:C:2174:VAL:HG22	2.16	0.45
1:C:2832:THR:HG21	1:D:1550:PRO:HD3	1.98	0.45
1:D:864:PRO:HB2	1:D:1009:ARG:HG2	1.99	0.45
1:D:2582:PRO:HG3	1:D:2617:CYS:SG	2.56	0.45
1:D:3280:ILE:HA	1:D:3283:ILE:HG12	1.98	0.45
1:D:3639:LYS:HG3	1:D:4683:ARG:HH22	1.81	0.45
1:A:1176:THR:HG22	1:A:1181:ILE:HG13	1.98	0.45
1:A:2409:ILE:HD12	1:A:2417:ILE:HD13	1.98	0.45
1:A:2763:LEU:O	1:A:2768:LYS:NZ	2.49	0.45
1:A:3019:ILE:H	1:A:3019:ILE:HD12	1.81	0.45
1:A:3161:ALA:O	1:A:3244:SER:O	2.33	0.45
1:A:4663:ARG:NH1	1:A:4663:ARG:HB2	2.31	0.45
1:B:562:LEU:HG	1:B:600:LEU:HD13	1.97	0.45
1:B:1685:LEU:O	1:B:1689:ILE:HG12	2.16	0.45
1:B:1956:ALA:O	1:B:1966:ARG:NH1	2.49	0.45
1:B:1966:ARG:HG2	1:B:3605:MET:HG3	1.99	0.45
1:B:2927:GLN:O	1:B:2931:ARG:HD3	2.16	0.45
1:B:3165:ALA:HA	1:B:3247:SER:C	2.42	0.45
1:B:3301:VAL:HA	1:B:3304:GLN:OE1	2.16	0.45
1:C:756:SER:OG	1:C:769:ARG:HB3	2.16	0.45
1:C:2582:PRO:HG3	1:C:2617:CYS:SG	2.56	0.45
1:C:3245:TYR:HD2	1:C:3246:MET:HE2	1.81	0.45
1:C:3280:ILE:HA	1:C:3283:ILE:HG12	1.98	0.45
1:D:3167:PRO:HA	1:D:3248:ARG:NE	2.32	0.45
1:D:3808:PHE:HB2	1:D:3829:VAL:HG11	1.98	0.45
1:D:3882:GLN:HB3	1:D:3947:PHE:CE2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4079:ASP:O	1:D:4082:GLU:HG3	2.16	0.45
3:L:95:LYS:HE3	3:L:105:GLU:HB2	1.99	0.45
1:A:2918:GLU:HA	1:A:2923:TYR:CE1	2.51	0.45
1:A:3017:HIS:C	1:A:3018:ARG:HD2	2.40	0.45
1:A:3164:GLY:CA	1:A:3244:SER:CA	2.95	0.45
1:A:3167:PRO:HA	1:A:3248:ARG:NE	2.32	0.45
1:A:3322:LEU:O	1:A:3326:LEU:CB	2.63	0.45
1:B:842:GLN:HG2	1:B:1605:LYS:HE3	1.98	0.45
1:B:2723:LYS:HD3	1:B:2899:ASN:OD1	2.16	0.45
1:B:2767:GLU:O	1:B:2770:ILE:HG12	2.16	0.45
1:B:3882:GLN:HB3	1:B:3947:PHE:CE2	2.51	0.45
1:B:3975:GLN:O	1:B:3979:VAL:HG23	2.16	0.45
1:B:4022:LYS:HB2	1:B:4022:LYS:HE2	1.79	0.45
1:B:4521:LYS:HB2	1:B:4521:LYS:HE2	1.61	0.45
1:B:4800:ASP:OD1	1:B:4800:ASP:N	2.49	0.45
1:C:63:SER:HB3	1:C:276:ARG:CZ	2.45	0.45
1:C:769:ARG:HH21	1:C:816:PRO:HG3	1.80	0.45
1:C:1978:ASN:HB3	1:C:1983:LYS:HE2	1.98	0.45
1:C:2701:PHE:CD1	1:C:2873:PRO:HG3	2.51	0.45
1:C:2767:GLU:O	1:C:2770:ILE:HG12	2.16	0.45
1:C:3604:ARG:HA	3:K:52:MET:CE	2.43	0.45
1:C:4667:SER:OG	1:C:4672:MET:O	2.34	0.45
1:D:2123:LEU:HG	1:D:2127:ARG:HD2	1.97	0.45
1:D:3019:ILE:HD12	1:D:3019:ILE:H	1.81	0.45
1:A:23:GLN:OE1	1:A:34:LYS:HG3	2.17	0.45
1:A:75:VAL:HG12	1:A:79:GLN:NE2	2.20	0.45
1:A:756:SER:OG	1:A:769:ARG:HB3	2.16	0.45
1:A:4079:ASP:O	1:A:4082:GLU:HG3	2.16	0.45
1:B:864:PRO:HB2	1:B:1009:ARG:HG2	1.99	0.45
1:B:951:GLY:O	1:B:1063:ASN:N	2.49	0.45
1:B:2322:ARG:HH22	1:B:2415:GLU:CD	2.24	0.45
1:B:3002:GLU:HB3	1:B:3044:THR:HG21	1.97	0.45
1:B:3062:ASP:HB2	1:B:3132:ARG:HH22	1.81	0.45
1:B:3159:LEU:O	1:B:3241:MET:HA	2.16	0.45
1:B:3882:GLN:HG2	1:B:3943:ALA:HA	1.98	0.45
1:C:864:PRO:HB2	1:C:1009:ARG:HG2	1.99	0.45
1:C:1956:ALA:O	1:C:1966:ARG:NH1	2.49	0.45
1:C:3163:ALA:HB3	1:C:3241:MET:CG	2.46	0.45
1:C:3808:PHE:HB2	1:C:3829:VAL:HG11	1.97	0.45
1:C:4155:SER:O	1:C:4159:GLN:HG2	2.16	0.45
1:C:4782:THR:HG22	1:C:4809:MET:HE1	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:63:SER:HB3	1:D:276:ARG:CZ	2.45	0.45
1:D:240:HIS:ND1	1:D:240:HIS:C	2.74	0.45
1:D:1956:ALA:O	1:D:1966:ARG:NH1	2.49	0.45
1:D:2326:ARG:HA	1:D:2326:ARG:HD3	1.75	0.45
1:D:2465:LYS:O	1:D:2469:VAL:HG23	2.16	0.45
1:D:2767:GLU:O	1:D:2770:ILE:HG12	2.16	0.45
1:D:2918:GLU:HA	1:D:2923:TYR:CE1	2.51	0.45
1:D:3165:ALA:HA	1:D:3247:SER:C	2.42	0.45
1:D:3316:LYS:O	1:D:3317:THR:OG1	2.24	0.45
1:D:3830:LEU:HD13	1:D:3833:ASP:OD1	2.16	0.45
1:D:3975:GLN:O	1:D:3979:VAL:HG23	2.16	0.45
1:D:4622:SER:OG	1:D:4624:ASP:OD1	2.25	0.45
1:A:981:MET:HE1	1:A:985:PHE:HB2	1.99	0.45
1:A:1129:GLY:O	1:A:1147:GLN:N	2.50	0.45
1:A:2214:MET:HA	1:A:2214:MET:CE	2.42	0.45
1:A:3002:GLU:HB3	1:A:3044:THR:HG21	1.97	0.45
1:A:3301:VAL:HA	1:A:3304:GLN:OE1	2.16	0.45
1:A:3664:LEU:O	1:A:3668:ILE:HG13	2.16	0.45
1:A:4155:SER:O	1:A:4159:GLN:HG2	2.16	0.45
1:B:1176:THR:HG22	1:B:1181:ILE:HG13	1.98	0.45
1:B:1249:MET:HE3	1:B:1599:MET:HE1	1.97	0.45
1:B:2763:LEU:O	1:B:2768:LYS:NZ	2.49	0.45
1:B:2771:TYR:O	1:B:2775:ILE:HG13	2.17	0.45
1:C:951:GLY:O	1:C:1063:ASN:N	2.49	0.45
1:C:1966:ARG:HG2	1:C:3605:MET:HG3	1.99	0.45
1:C:2759:PRO:HG2	1:C:2762:LEU:HD12	1.98	0.45
1:C:2771:TYR:O	1:C:2775:ILE:HG13	2.17	0.45
1:C:2957:GLU:HA	1:C:2960:ILE:HG12	1.98	0.45
1:D:880:ARG:NH1	1:D:881:ILE:HB	2.31	0.45
1:D:964:MET:SD	1:D:964:MET:N	2.81	0.45
1:D:1253:LYS:HB2	1:D:1253:LYS:HE2	1.76	0.45
1:D:3159:LEU:O	1:D:3241:MET:HA	2.16	0.45
3:L:138:ASN:OD1	3:L:141:GLU:N	2.39	0.45
1:A:218:SER:HB3	1:A:286:GLY:HA3	1.99	0.45
1:A:514:PHE:CD2	1:A:526:TRP:HB2	2.51	0.45
1:A:864:PRO:HB2	1:A:1009:ARG:HG2	1.99	0.45
1:A:2723:LYS:HD3	1:A:2899:ASN:OD1	2.16	0.45
1:A:2844:MET:HE2	1:A:2845:ALA:N	2.32	0.45
1:A:3639:LYS:HG3	1:A:4683:ARG:HH22	1.81	0.45
1:A:3892:TYR:OH	1:A:3899:ASP:OD1	2.26	0.45
1:B:920:GLU:O	1:B:924:LEU:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:932:ASN:HA	1:B:935:MET:HG2	1.98	0.45
1:B:2171:VAL:O	1:B:2174:VAL:HG22	2.16	0.45
1:B:3164:GLY:CA	1:B:3244:SER:CA	2.95	0.45
1:C:2763:LEU:O	1:C:2768:LYS:NZ	2.49	0.45
1:C:3122:ILE:HD11	1:C:3167:PRO:HB2	1.98	0.45
1:C:3162:PHE:O	1:C:3244:SER:C	2.60	0.45
1:C:4079:ASP:O	1:C:4082:GLU:HG3	2.16	0.45
1:D:3163:ALA:HB3	1:D:3241:MET:CG	2.46	0.45
1:D:3301:VAL:HA	1:D:3304:GLN:OE1	2.16	0.45
1:D:4667:SER:OG	1:D:4672:MET:O	2.34	0.45
3:J:69:PHE:O	3:J:73:MET:HG2	2.16	0.45
3:K:95:LYS:HE3	3:K:105:GLU:HB2	1.99	0.45
1:A:387:ILE:HG12	1:A:389:ARG:HB3	1.99	0.45
1:A:1922:ILE:O	1:A:1926:VAL:HG23	2.16	0.45
1:A:2771:TYR:O	1:A:2775:ILE:HG13	2.17	0.45
1:A:4194:GLU:HG2	1:A:4645:TRP:HZ3	1.80	0.45
3:I:95:LYS:HE3	3:I:105:GLU:HB2	1.99	0.45
1:B:981:MET:HE1	1:B:985:PHE:HB2	1.99	0.45
1:B:1129:GLY:O	1:B:1147:GLN:N	2.50	0.45
1:B:1922:ILE:O	1:B:1926:VAL:HG23	2.16	0.45
1:B:2171:VAL:HG21	1:B:2199:PHE:CE2	2.52	0.45
1:B:2605:MET:HE3	1:B:2606:PRO:HD3	1.98	0.45
1:B:2918:GLU:HA	1:B:2923:TYR:CE1	2.51	0.45
1:B:4194:GLU:HG2	1:B:4645:TRP:HZ3	1.80	0.45
1:C:2322:ARG:HH22	1:C:2415:GLU:CD	2.24	0.45
1:C:3250:TRP:CD1	1:C:3273:MET:CE	2.99	0.45
1:C:3882:GLN:HG2	1:C:3943:ALA:HA	1.98	0.45
1:C:4084:VAL:O	1:C:4088:HIS:HB3	2.16	0.45
1:D:551:PHE:HE2	1:D:558:LEU:HD22	1.82	0.45
1:D:932:ASN:HA	1:D:935:MET:HG2	1.98	0.45
1:D:2171:VAL:HG21	1:D:2199:PHE:CE2	2.52	0.45
1:D:2586:GLN:NE2	1:D:2636:GLU:OE1	2.48	0.45
1:D:2771:TYR:O	1:D:2775:ILE:HG13	2.17	0.45
1:D:2957:GLU:HA	1:D:2960:ILE:HG12	1.98	0.45
1:A:2171:VAL:HG21	1:A:2199:PHE:CE2	2.52	0.45
1:A:2605:MET:HB3	1:A:2606:PRO:HD3	1.99	0.45
1:B:1174:MET:HE3	1:B:1174:MET:HB3	1.81	0.45
1:B:3163:ALA:HB3	1:B:3241:MET:CG	2.46	0.45
1:B:3278:GLY:HA2	1:B:3281:LEU:HD23	1.99	0.45
1:B:4061:SER:O	1:B:4064:GLU:HG3	2.17	0.45
1:C:218:SER:HB3	1:C:286:GLY:HA3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:842:GLN:HG2	1:C:1605:LYS:HE3	1.98	0.45
1:C:946:LEU:HD11	1:C:999:LEU:HG	1.99	0.45
1:C:3019:ILE:H	1:C:3019:ILE:HD12	1.81	0.45
1:C:3172:GLU:HB2	1:C:3211:LEU:HD12	1.99	0.45
1:C:3217:GLU:O	1:C:3220:GLU:HG3	2.17	0.45
1:C:3589:LYS:HE2	1:C:3589:LYS:HB3	1.39	0.45
1:C:3975:GLN:O	1:C:3979:VAL:HG23	2.16	0.45
1:C:4663:ARG:HB2	1:C:4663:ARG:NH1	2.31	0.45
1:D:625:VAL:HG13	1:D:2133:ARG:NH2	2.32	0.45
1:D:655:MET:HE2	1:D:834:VAL:HG12	1.98	0.45
1:D:1129:GLY:O	1:D:1147:GLN:N	2.50	0.45
1:D:1922:ILE:O	1:D:1926:VAL:HG23	2.16	0.45
1:D:3164:GLY:CA	1:D:3244:SER:CA	2.95	0.45
1:D:4084:VAL:O	1:D:4088:HIS:HB3	2.16	0.45
3:J:138:ASN:OD1	3:J:141:GLU:N	2.39	0.45
1:A:71:GLN:HB3	1:A:73:LEU:HD23	1.98	0.45
1:A:2605:MET:HE3	1:A:2606:PRO:HD3	1.98	0.45
1:A:3163:ALA:HB3	1:A:3241:MET:CG	2.46	0.45
1:A:3250:TRP:CD1	1:A:3273:MET:CE	2.99	0.45
1:B:23:GLN:OE1	1:B:34:LYS:HG3	2.17	0.45
1:B:655:MET:HE2	1:B:834:VAL:HG12	1.98	0.45
1:B:895:MET:HE3	1:B:978:PRO:CD	2.34	0.45
1:B:1420:LEU:HD11	1:B:1559:ARG:NH2	2.32	0.45
1:B:2605:MET:HB3	1:B:2606:PRO:HD3	1.99	0.45
1:B:2788:ARG:HH11	1:B:2908:LYS:HZ2	1.63	0.45
1:B:2957:GLU:HA	1:B:2960:ILE:HG12	1.98	0.45
1:B:3070:LYS:O	1:B:3074:ASN:ND2	2.50	0.45
1:B:3122:ILE:HD11	1:B:3167:PRO:HB2	1.98	0.45
1:B:3172:GLU:OE2	1:B:3175:LEU:N	2.50	0.45
1:B:3217:GLU:O	1:B:3220:GLU:HG3	2.17	0.45
1:B:4084:VAL:O	1:B:4088:HIS:HB3	2.16	0.45
1:C:920:GLU:O	1:C:924:LEU:N	2.50	0.45
1:C:2133:ARG:HG2	1:C:2133:ARG:HH11	1.82	0.45
1:C:3164:GLY:O	1:C:3247:SER:OG	2.27	0.45
1:C:3664:LEU:O	1:C:3668:ILE:HG13	2.16	0.45
1:C:4264:LEU:HA	1:C:4267:GLN:OE1	2.16	0.45
1:C:4519:PHE:O	1:C:4561:LEU:HD12	2.17	0.45
1:D:23:GLN:OE1	1:D:34:LYS:HG3	2.17	0.45
1:D:2322:ARG:HH22	1:D:2415:GLU:CD	2.24	0.45
1:D:2704:GLN:OE1	1:D:2704:GLN:N	2.46	0.45
1:D:3122:ILE:HD11	1:D:3167:PRO:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3172:GLU:HB2	1:D:3211:LEU:HD12	1.99	0.45
1:D:3245:TYR:HD2	1:D:3246:MET:HE2	1.81	0.45
1:D:4782:THR:HG22	1:D:4809:MET:HE1	1.99	0.45
3:J:95:LYS:HE3	3:J:105:GLU:HB2	1.99	0.45
1:A:513:HIS:O	1:A:517:VAL:HG23	2.16	0.45
1:A:611:LEU:HD22	1:A:1660:LEU:HD22	1.99	0.45
1:A:920:GLU:O	1:A:924:LEU:N	2.50	0.45
3:I:57:ASP:OD2	3:I:62:GLY:N	2.40	0.45
1:B:2214:MET:HA	1:B:2214:MET:CE	2.42	0.45
1:B:2252:GLU:OE1	1:B:2252:GLU:N	2.39	0.45
1:B:2830:ASN:HD21	1:C:1551:ASN:HB2	1.82	0.45
1:B:3172:GLU:HB2	1:B:3211:LEU:HD12	1.99	0.45
1:C:611:LEU:HD22	1:C:1660:LEU:HD22	1.99	0.45
1:C:1174:MET:HE3	1:C:1174:MET:HB3	1.81	0.45
1:C:1420:LEU:HD11	1:C:1559:ARG:NH2	2.32	0.45
1:C:2171:VAL:HG21	1:C:2199:PHE:CE2	2.52	0.45
1:C:3164:GLY:CA	1:C:3244:SER:CA	2.95	0.45
1:C:3173:THR:HG21	1:C:3201:VAL:HG11	1.99	0.45
1:C:3830:LEU:HD13	1:C:3833:ASP:OD1	2.16	0.45
1:D:842:GLN:HG2	1:D:1605:LYS:HE3	1.98	0.45
1:D:2763:LEU:O	1:D:2768:LYS:NZ	2.49	0.45
1:D:4155:SER:O	1:D:4159:GLN:HG2	2.16	0.45
1:A:829:LYS:HE3	1:A:1037:LEU:HD22	1.99	0.44
1:A:2172:MET:O	1:A:2176:VAL:N	2.43	0.44
1:A:3062:ASP:O	1:A:3066:GLU:OE1	2.35	0.44
1:A:3697:LYS:HA	1:A:3700:HIS:NE2	2.32	0.44
1:A:4484:ILE:HG22	1:D:4279:MET:HE1	2.00	0.44
1:B:3015:VAL:HG13	1:B:3096:TYR:OH	2.17	0.44
1:B:4264:LEU:HA	1:B:4267:GLN:OE1	2.16	0.44
1:C:23:GLN:OE1	1:C:34:LYS:HG3	2.17	0.44
1:C:513:HIS:O	1:C:517:VAL:HG23	2.16	0.44
1:C:2605:MET:HE3	1:C:2606:PRO:HD3	1.98	0.44
1:C:2605:MET:HB3	1:C:2606:PRO:HD3	1.99	0.44
1:D:387:ILE:HG12	1:D:389:ARG:HB3	1.99	0.44
1:D:3182:SER:OG	1:D:3185:ASN:ND2	2.40	0.44
1:D:3184:TYR:CE1	1:D:3192:ARG:NH2	2.85	0.44
1:A:551:PHE:HE2	1:A:558:LEU:HD22	1.82	0.44
1:A:769:ARG:HH21	1:A:816:PRO:HG3	1.80	0.44
1:A:3015:VAL:HG13	1:A:3096:TYR:OH	2.17	0.44
1:A:3165:ALA:HA	1:A:3247:SER:C	2.42	0.44
1:A:3172:GLU:HB2	1:A:3211:LEU:HD12	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3184:TYR:CE1	1:A:3192:ARG:NH2	2.85	0.44
2:H:75:LEU:O	2:H:100:PHE:N	2.36	0.44
3:I:22:LYS:HD3	3:I:22:LYS:N	2.32	0.44
1:B:71:GLN:HB3	1:B:73:LEU:HD23	1.98	0.44
1:B:551:PHE:HE2	1:B:558:LEU:HD22	1.82	0.44
1:B:756:SER:OG	1:B:769:ARG:HB3	2.16	0.44
1:B:946:LEU:HD11	1:B:999:LEU:HG	1.99	0.44
1:B:1906:MET:HE3	1:B:1906:MET:HB3	1.87	0.44
1:B:3173:THR:HG21	1:B:3201:VAL:HG11	1.99	0.44
1:B:4519:PHE:O	1:B:4561:LEU:HD12	2.17	0.44
1:B:4782:THR:HG22	1:B:4809:MET:HE1	1.99	0.44
1:C:625:VAL:HG13	1:C:2133:ARG:NH2	2.32	0.44
1:C:1436:GLN:H	1:C:1500:ARG:HH22	1.65	0.44
1:C:2723:LYS:HD3	1:C:2899:ASN:OD1	2.16	0.44
1:C:2844:MET:HE2	1:C:2845:ALA:N	2.32	0.44
1:C:4818:TYR:HE1	1:D:4847:ASP:HB2	1.83	0.44
1:D:2409:ILE:HD12	1:D:2417:ILE:HD13	1.98	0.44
1:D:3002:GLU:HB3	1:D:3044:THR:HG21	1.97	0.44
1:D:3297:LYS:O	1:D:3301:VAL:HG23	2.18	0.44
1:A:3278:GLY:HA2	1:A:3281:LEU:HD23	1.99	0.44
1:B:240:HIS:ND1	1:B:240:HIS:C	2.74	0.44
1:B:874:LEU:HD12	1:B:875:PRO:CD	2.48	0.44
1:B:1436:GLN:H	1:B:1500:ARG:HH22	1.66	0.44
1:B:2645:PHE:HB2	1:B:2672:VAL:HG11	1.99	0.44
1:B:3138:TYR:CD2	1:B:3208:ILE:HG13	2.53	0.44
1:C:551:PHE:HE2	1:C:558:LEU:HD22	1.82	0.44
1:C:932:ASN:HA	1:C:935:MET:HG2	1.98	0.44
1:C:2136:LYS:O	1:C:2140:LYS:HG2	2.18	0.44
1:C:2409:ILE:HD12	1:C:2417:ILE:HD13	1.98	0.44
1:C:3167:PRO:HA	1:C:3248:ARG:NE	2.32	0.44
1:C:3172:GLU:OE2	1:C:3175:LEU:N	2.50	0.44
1:D:322:ALA:HB1	1:D:327:THR:HG21	1.99	0.44
1:D:981:MET:HE1	1:D:985:PHE:HB2	1.99	0.44
1:D:2605:MET:HB3	1:D:2606:PRO:HD3	1.99	0.44
1:D:2645:PHE:HB2	1:D:2672:VAL:HG11	1.99	0.44
1:D:3062:ASP:O	1:D:3066:GLU:OE1	2.35	0.44
1:D:3070:LYS:O	1:D:3074:ASN:ND2	2.50	0.44
1:A:1420:LEU:HD11	1:A:1559:ARG:NH2	2.32	0.44
1:A:2136:LYS:O	1:A:2140:LYS:HG2	2.18	0.44
1:A:2171:VAL:O	1:A:2174:VAL:HG22	2.16	0.44
1:A:2759:PRO:HG2	1:A:2762:LEU:HD12	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3122:ILE:HD11	1:A:3167:PRO:HB2	1.98	0.44
1:A:4084:VAL:O	1:A:4088:HIS:HB3	2.16	0.44
2:G:78:THR:OG1	2:G:80:ASP:OD1	2.29	0.44
1:B:611:LEU:HD22	1:B:1660:LEU:HD22	1.99	0.44
1:B:2333:PRO:HA	1:B:2336:ARG:HG2	2.00	0.44
1:B:2785:TRP:HH2	1:B:2847:ASN:HB2	1.83	0.44
1:B:2844:MET:HE2	1:B:2845:ALA:N	2.32	0.44
1:C:514:PHE:CD2	1:C:526:TRP:HB2	2.51	0.44
1:C:829:LYS:HE3	1:C:1037:LEU:HD22	1.99	0.44
1:C:1922:ILE:O	1:C:1926:VAL:HG23	2.16	0.44
1:D:1102:TYR:HD1	1:D:1165:MET:HG2	1.83	0.44
1:D:2605:MET:HE3	1:D:2606:PRO:HD3	1.98	0.44
1:D:2844:MET:HE2	1:D:2845:ALA:N	2.32	0.44
1:A:1966:ARG:HG2	1:A:3605:MET:HG3	1.99	0.44
1:A:2133:ARG:HG2	1:A:2133:ARG:HH11	1.82	0.44
1:A:3162:PHE:O	1:A:3244:SER:C	2.60	0.44
1:A:4766:GLN:HA	1:D:4756:ILE:HD11	1.99	0.44
2:G:24:VAL:HG22	2:G:48:LYS:HG2	2.00	0.44
1:B:625:VAL:HG13	1:B:2133:ARG:NH2	2.32	0.44
1:B:3167:PRO:HA	1:B:3248:ARG:NE	2.32	0.44
1:B:3319:PHE:CD2	1:B:3323:MET:HE3	2.52	0.44
1:C:1097:LYS:NZ	1:C:1198:GLY:O	2.51	0.44
1:C:2333:PRO:HA	1:C:2336:ARG:HG2	2.00	0.44
1:C:3112:ILE:HG13	1:C:3117:PHE:HB2	2.00	0.44
1:D:611:LEU:HD22	1:D:1660:LEU:HD22	2.00	0.44
1:D:3664:LEU:O	1:D:3668:ILE:HG13	2.16	0.44
3:L:145:MET:HE2	3:L:145:MET:HB2	1.69	0.44
3:K:126:ILE:HA	3:K:129:ALA:HB3	2.00	0.44
1:A:2645:PHE:HB2	1:A:2672:VAL:HG11	1.99	0.44
1:A:2785:TRP:HH2	1:A:2847:ASN:HB2	1.83	0.44
1:A:2957:GLU:HA	1:A:2960:ILE:HG12	1.98	0.44
1:A:4800:ASP:N	1:A:4800:ASP:OD1	2.49	0.44
2:G:51:ILE:O	2:G:53:LYS:NZ	2.39	0.44
1:B:1097:LYS:NZ	1:B:1198:GLY:O	2.51	0.44
1:B:2136:LYS:O	1:B:2140:LYS:HG2	2.18	0.44
1:B:2409:ILE:HD12	1:B:2417:ILE:HD13	1.98	0.44
1:B:3297:LYS:O	1:B:3301:VAL:HG23	2.18	0.44
1:B:3697:LYS:HA	1:B:3700:HIS:NE2	2.32	0.44
1:C:874:LEU:HD12	1:C:875:PRO:CD	2.48	0.44
1:C:981:MET:HE1	1:C:985:PHE:HB2	1.99	0.44
1:C:1102:TYR:HD1	1:C:1165:MET:HG2	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1176:THR:HG22	1:C:1181:ILE:HG13	1.98	0.44
1:C:2832:THR:HG21	1:D:1290:PHE:HE2	1.83	0.44
1:D:1760:ARG:NE	1:D:1762:GLN:HE22	2.14	0.44
3:L:22:LYS:HD3	3:L:22:LYS:N	2.32	0.44
1:A:876:PRO:HA	1:A:879:GLU:CG	2.48	0.44
1:A:951:GLY:O	1:A:1063:ASN:N	2.49	0.44
1:A:2322:ARG:HH22	1:A:2415:GLU:CD	2.24	0.44
1:A:2732:TRP:O	1:A:2736:LYS:HD2	2.18	0.44
2:H:78:THR:OG1	2:H:80:ASP:OD1	2.29	0.44
1:B:1185:ASP:OD1	1:B:1185:ASP:N	2.51	0.44
1:B:3062:ASP:O	1:B:3066:GLU:OE1	2.35	0.44
1:C:322:ALA:HB1	1:C:327:THR:HG21	1.99	0.44
1:C:1760:ARG:NE	1:C:1762:GLN:HE22	2.14	0.44
1:C:2645:PHE:HB2	1:C:2672:VAL:HG11	1.99	0.44
1:C:3070:LYS:O	1:C:3074:ASN:ND2	2.50	0.44
1:C:3184:TYR:CE1	1:C:3192:ARG:NH2	2.85	0.44
1:D:4156:SER:HB3	1:D:4923:MET:HE1	2.00	0.44
3:J:145:MET:HE2	3:J:145:MET:HB2	1.69	0.44
1:A:625:VAL:HG13	1:A:2133:ARG:NH2	2.32	0.44
1:A:1097:LYS:NZ	1:A:1198:GLY:O	2.51	0.44
1:A:1177:LEU:O	1:A:1180:GLU:HG3	2.18	0.44
1:A:3138:TYR:CD2	1:A:3208:ILE:HG13	2.53	0.44
1:A:3280:ILE:HA	1:A:3283:ILE:HG12	1.98	0.44
1:A:4056:LYS:HE3	1:B:4660:PHE:CA	2.47	0.44
1:B:70:GLU:OE2	1:B:122:ARG:HD3	2.18	0.44
1:B:3162:PHE:O	1:B:3244:SER:C	2.60	0.44
1:B:4521:LYS:HB3	1:B:4562:GLU:CD	2.43	0.44
1:C:1185:ASP:OD1	1:C:1185:ASP:N	2.51	0.44
1:C:3165:ALA:HA	1:C:3247:SER:C	2.42	0.44
1:C:4061:SER:O	1:C:4064:GLU:HG3	2.17	0.44
1:C:4156:SER:HB3	1:C:4923:MET:HE1	2.00	0.44
1:D:218:SER:HB3	1:D:286:GLY:HA3	1.99	0.44
1:D:1097:LYS:NZ	1:D:1198:GLY:O	2.51	0.44
1:D:1177:LEU:O	1:D:1180:GLU:HG3	2.18	0.44
1:D:1420:LEU:HD11	1:D:1559:ARG:NH2	2.32	0.44
1:D:4519:PHE:O	1:D:4561:LEU:HD12	2.17	0.44
1:D:4521:LYS:HB3	1:D:4562:GLU:CD	2.43	0.44
1:A:322:ALA:HB1	1:A:327:THR:HG21	1.99	0.44
1:A:3072:MET:HE2	1:A:3072:MET:HB3	1.71	0.44
1:A:3297:LYS:O	1:A:3301:VAL:HG23	2.18	0.44
1:A:4061:SER:O	1:A:4064:GLU:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4521:LYS:HB3	1:A:4562:GLU:CD	2.43	0.44
3:I:4:GLN:HG2	3:I:5:LEU:N	2.33	0.44
1:B:2691:LYS:O	1:B:2694:SER:OG	2.35	0.44
1:B:3016:ARG:HH12	1:B:3063:ASN:HB3	1.83	0.44
1:B:3280:ILE:HA	1:B:3283:ILE:HG12	1.98	0.44
1:B:3299:LEU:H	1:B:3299:LEU:HG	1.63	0.44
1:C:4000:VAL:O	1:C:4004:VAL:HG23	2.18	0.44
1:D:1906:MET:HE3	1:D:1906:MET:HB3	1.87	0.44
1:D:1966:ARG:HG2	1:D:3605:MET:HG3	1.99	0.44
1:D:2605:MET:HB3	1:D:2605:MET:HE3	1.74	0.44
1:D:3001:LYS:O	1:D:3005:THR:HG23	2.18	0.44
1:D:3093:ILE:HD12	1:D:3093:ILE:HA	1.89	0.44
1:D:3164:GLY:O	1:D:3247:SER:CA	2.66	0.44
1:D:3278:GLY:HA2	1:D:3281:LEU:HD23	1.99	0.44
3:K:22:LYS:HD3	3:K:22:LYS:N	2.32	0.44
1:A:1720:MET:HE3	1:A:1721:MET:HE2	2.00	0.43
1:A:2418:ARG:HD3	1:B:189:GLU:OE1	2.18	0.43
1:A:3016:ARG:HH12	1:A:3063:ASN:HB3	1.83	0.43
1:A:4256:MET:HE2	1:A:4256:MET:HB3	1.95	0.43
1:A:4782:THR:HG22	1:A:4809:MET:HE1	1.99	0.43
1:B:218:SER:HB3	1:B:286:GLY:HA3	1.99	0.43
1:B:829:LYS:HE3	1:B:1037:LEU:HD22	1.99	0.43
1:B:2785:TRP:CH2	1:B:2847:ASN:HB2	2.53	0.43
1:B:3589:LYS:HE2	1:B:3589:LYS:HB3	1.39	0.43
1:C:733:TRP:CE2	1:C:738:ALA:HB2	2.53	0.43
1:C:1720:MET:HE3	1:C:1721:MET:HE2	2.00	0.43
1:C:2192:MET:HA	1:C:2192:MET:CE	2.44	0.43
1:C:3001:LYS:O	1:C:3005:THR:HG23	2.18	0.43
1:C:3026:ALA:O	1:C:3030:VAL:HG23	2.18	0.43
1:C:3165:ALA:H	1:C:3245:TYR:N	2.08	0.43
1:C:3297:LYS:O	1:C:3301:VAL:HG23	2.18	0.43
1:C:3879:LEU:O	1:C:3882:GLN:HG3	2.18	0.43
1:D:181:LEU:N	1:D:212:TRP:O	2.35	0.43
1:D:1720:MET:HE3	1:D:1721:MET:HE2	2.00	0.43
1:D:2333:PRO:HA	1:D:2336:ARG:HG2	2.00	0.43
1:D:3217:GLU:O	1:D:3220:GLU:HG3	2.17	0.43
1:D:3697:LYS:HA	1:D:3700:HIS:NE2	2.32	0.43
1:D:4800:ASP:N	1:D:4800:ASP:OD1	2.49	0.43
3:L:126:ILE:HA	3:L:129:ALA:HB3	2.00	0.43
1:A:1681:ASP:OD1	1:A:1684:GLN:NE2	2.51	0.43
1:A:3070:LYS:O	1:A:3074:ASN:ND2	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3217:GLU:O	1:A:3220:GLU:HG3	2.17	0.43
1:A:3900:GLU:OE1	1:A:3904:ARG:NH2	2.45	0.43
1:B:733:TRP:CE2	1:B:738:ALA:HB2	2.53	0.43
1:B:2133:ARG:HG2	1:B:2133:ARG:HH11	1.82	0.43
1:B:2488:LEU:HD21	1:B:2548:LEU:HD22	2.00	0.43
1:B:3045:VAL:HG22	1:B:3054:LYS:HE2	2.00	0.43
1:B:3164:GLY:N	1:B:3242:LEU:O	2.51	0.43
1:C:70:GLU:OE2	1:C:122:ARG:HD3	2.18	0.43
1:C:312:LYS:HE2	1:C:393:MET:O	2.19	0.43
1:C:394:HIS:CE1	1:C:396:GLU:HB2	2.54	0.43
1:C:1226:TYR:HD1	1:C:1229:ILE:HD11	1.83	0.43
1:C:1681:ASP:OD1	1:C:1684:GLN:NE2	2.51	0.43
1:C:1825:PHE:CE1	1:C:1842:ILE:HG12	2.54	0.43
1:C:2732:TRP:O	1:C:2736:LYS:HD2	2.18	0.43
1:C:2785:TRP:HH2	1:C:2847:ASN:HB2	1.83	0.43
1:C:3045:VAL:HG22	1:C:3054:LYS:HE2	2.00	0.43
1:C:3138:TYR:CD2	1:C:3208:ILE:HG13	2.53	0.43
1:C:3164:GLY:N	1:C:3242:LEU:O	2.51	0.43
1:D:70:GLU:OE2	1:D:122:ARG:HD3	2.18	0.43
1:D:829:LYS:HE3	1:D:1037:LEU:HD22	1.99	0.43
1:D:1089:ARG:HB3	1:D:1204:VAL:HG23	2.00	0.43
1:D:1226:TYR:HD1	1:D:1229:ILE:HD11	1.83	0.43
1:D:1681:ASP:OD1	1:D:1684:GLN:NE2	2.51	0.43
1:D:2136:LYS:O	1:D:2140:LYS:HG2	2.18	0.43
1:D:2759:PRO:HG2	1:D:2762:LEU:HD12	1.98	0.43
1:D:3015:VAL:HG13	1:D:3096:TYR:OH	2.17	0.43
1:D:3164:GLY:N	1:D:3242:LEU:O	2.51	0.43
1:D:3173:THR:HG21	1:D:3201:VAL:HG11	1.99	0.43
3:J:126:ILE:HA	3:J:129:ALA:HB3	2.00	0.43
1:A:448:PRO:HB2	1:A:451:SER:HG	1.83	0.43
1:A:3045:VAL:HA	1:A:3054:LYS:HE2	2.00	0.43
2:E:24:VAL:HG22	2:E:48:LYS:HG2	2.00	0.43
1:B:322:ALA:HB1	1:B:327:THR:HG21	1.99	0.43
1:B:1681:ASP:OD1	1:B:1684:GLN:NE2	2.51	0.43
1:B:3112:ILE:HG13	1:B:3117:PHE:HB2	2.00	0.43
1:B:3879:LEU:O	1:B:3882:GLN:HG3	2.18	0.43
1:C:1129:GLY:O	1:C:1147:GLN:N	2.50	0.43
1:C:1906:MET:HE3	1:C:1906:MET:HB3	1.87	0.43
1:C:3015:VAL:HG13	1:C:3096:TYR:OH	2.17	0.43
1:C:4521:LYS:HB3	1:C:4562:GLU:CD	2.43	0.43
1:D:876:PRO:HA	1:D:879:GLU:CG	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1444:GLY:HA3	1:D:1487:MET:HA	2.01	0.43
1:D:1900:GLU:HG2	1:D:2080:LEU:HD23	2.00	0.43
1:D:2785:TRP:HH2	1:D:2847:ASN:HB2	1.83	0.43
1:D:3138:TYR:CD2	1:D:3208:ILE:HG13	2.53	0.43
1:D:4000:VAL:O	1:D:4004:VAL:HG23	2.18	0.43
1:D:4107:GLU:OE1	1:D:4149:TYR:OH	2.20	0.43
1:A:1102:TYR:HD1	1:A:1165:MET:HG2	1.83	0.43
1:A:1226:TYR:HD1	1:A:1229:ILE:HD11	1.83	0.43
1:A:1825:PHE:CE1	1:A:1842:ILE:HG12	2.53	0.43
1:A:2215:PHE:CG	1:A:2253:LEU:HD22	2.54	0.43
1:A:3319:PHE:CD2	1:A:3323:MET:HE3	2.52	0.43
1:A:3583:LYS:HB3	3:I:125:MET:HB2	1.99	0.43
1:A:3604:ARG:HA	3:I:52:MET:HE3	1.99	0.43
1:A:4872:GLU:CD	1:D:4874:ARG:HD2	2.43	0.43
1:B:1444:GLY:HA3	1:B:1487:MET:HA	2.01	0.43
1:B:1825:PHE:CE1	1:B:1842:ILE:HG12	2.53	0.43
1:B:1890:LYS:HA	1:B:1890:LYS:HD2	1.82	0.43
1:B:2418:ARG:HD3	1:C:189:GLU:OE2	2.17	0.43
1:B:2732:TRP:O	1:B:2736:LYS:HD2	2.18	0.43
1:B:3234:VAL:O	1:B:3238:ILE:HB	2.19	0.43
1:B:3298:ARG:NH2	3:J:133:GLY:C	2.77	0.43
1:B:3805:LEU:HD11	1:B:3887:ASP:HB3	2.00	0.43
1:B:3845:LEU:HA	1:B:3848:GLU:HG2	2.00	0.43
1:C:810:GLU:CD	1:C:810:GLU:H	2.27	0.43
1:C:897:LYS:HB2	1:C:902:TRP:HB2	2.01	0.43
1:C:1177:LEU:O	1:C:1180:GLU:HG3	2.18	0.43
1:C:2798:MET:CB	1:D:1498:GLN:HE22	2.32	0.43
1:C:3164:GLY:O	1:C:3247:SER:CA	2.66	0.43
1:C:3197:LEU:HA	1:C:3198:PRO:HD3	1.77	0.43
1:C:3278:GLY:HA2	1:C:3281:LEU:HD23	1.99	0.43
1:C:3697:LYS:HA	1:C:3700:HIS:NE2	2.32	0.43
1:D:2488:LEU:HD21	1:D:2548:LEU:HD22	2.00	0.43
1:D:3172:GLU:OE2	1:D:3175:LEU:N	2.50	0.43
1:D:3845:LEU:HA	1:D:3848:GLU:HG2	2.00	0.43
1:A:1436:GLN:H	1:A:1500:ARG:HH22	1.66	0.43
1:A:2333:PRO:HA	1:A:2336:ARG:HG2	2.00	0.43
1:A:2999:LYS:O	1:A:3003:MET:HG2	2.19	0.43
1:A:3164:GLY:N	1:A:3242:LEU:O	2.51	0.43
1:A:3164:GLY:O	1:A:3247:SER:CA	2.66	0.43
1:A:3173:THR:HG21	1:A:3201:VAL:HG11	1.99	0.43
1:A:3245:TYR:HD2	1:A:3246:MET:HE2	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3295:TRP:CD1	1:A:3295:TRP:H	2.37	0.43
1:A:4156:SER:HB3	1:A:4923:MET:HE1	2.00	0.43
1:A:4519:PHE:O	1:A:4561:LEU:HD12	2.17	0.43
1:B:810:GLU:H	1:B:810:GLU:CD	2.27	0.43
1:B:2999:LYS:O	1:B:3003:MET:HG2	2.19	0.43
1:B:3184:TYR:CE1	1:B:3192:ARG:NH2	2.85	0.43
1:B:4618:THR:HG23	1:B:4619:GLU:OE1	2.19	0.43
1:C:1444:GLY:HA3	1:C:1487:MET:HA	2.01	0.43
1:C:2268:TYR:HB3	1:C:2298:TYR:CZ	2.54	0.43
1:C:3845:LEU:HA	1:C:3848:GLU:HG2	2.00	0.43
1:D:602:ASP:HA	1:D:642:LEU:HD21	2.00	0.43
1:D:733:TRP:CE2	1:D:738:ALA:HB2	2.53	0.43
1:D:1185:ASP:OD1	1:D:1185:ASP:N	2.51	0.43
1:D:2268:TYR:HB3	1:D:2298:TYR:CZ	2.54	0.43
1:D:2691:LYS:O	1:D:2694:SER:OG	2.35	0.43
1:D:3295:TRP:CD1	1:D:3295:TRP:H	2.37	0.43
1:A:70:GLU:OE2	1:A:122:ARG:HD3	2.18	0.43
1:A:733:TRP:CE2	1:A:738:ALA:HB2	2.53	0.43
1:A:1185:ASP:OD1	1:A:1185:ASP:N	2.51	0.43
1:A:2086:VAL:HG22	1:A:3687:LEU:HD13	2.00	0.43
1:A:3322:LEU:C	1:A:3323:MET:HE2	2.44	0.43
1:B:312:LYS:HE2	1:B:393:MET:O	2.19	0.43
1:B:387:ILE:HG12	1:B:389:ARG:HB3	1.99	0.43
1:B:1102:TYR:HD1	1:B:1165:MET:HG2	1.83	0.43
1:B:2086:VAL:HG22	1:B:3687:LEU:HD13	2.00	0.43
1:B:2296:GLU:HG3	1:B:2390:THR:HG22	2.01	0.43
1:B:3026:ALA:O	1:B:3030:VAL:HG23	2.18	0.43
1:B:3288:LEU:HD12	1:B:3325:LYS:HB3	2.01	0.43
1:B:4635:ILE:HG22	1:B:4670:LEU:HA	2.01	0.43
1:C:3062:ASP:O	1:C:3066:GLU:OE1	2.35	0.43
1:C:4056:LYS:HE3	1:D:4660:PHE:C	2.43	0.43
1:D:810:GLU:H	1:D:810:GLU:CD	2.27	0.43
1:D:946:LEU:HD11	1:D:999:LEU:HG	1.99	0.43
1:D:1494:MET:O	1:D:1494:MET:CG	2.67	0.43
1:D:2133:ARG:HG2	1:D:2133:ARG:HH11	1.82	0.43
1:D:4061:SER:O	1:D:4064:GLU:HG3	2.17	0.43
1:A:810:GLU:H	1:A:810:GLU:CD	2.27	0.43
1:A:1282:CYS:SG	1:A:1556:GLU:HG2	2.59	0.43
1:A:2215:PHE:HB2	1:A:2253:LEU:HD13	2.01	0.43
1:A:3234:VAL:O	1:A:3238:ILE:HB	2.19	0.43
1:A:4257:ARG:HA	1:A:4260:SER:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:24:VAL:HG22	2:F:48:LYS:HG2	2.00	0.43
1:B:182:ILE:O	1:B:182:ILE:HG13	2.19	0.43
1:B:394:HIS:CE1	1:B:396:GLU:HB2	2.53	0.43
1:B:995:MET:CE	1:B:1066:ALA:HB2	2.49	0.43
1:B:1014:GLN:HB3	1:B:1027:ARG:HH21	1.84	0.43
1:B:2215:PHE:CG	1:B:2253:LEU:HD22	2.54	0.43
1:B:2940:ILE:HG21	1:B:3018:ARG:HG2	2.01	0.43
1:B:3025:ASP:O	1:B:3029:ILE:HG13	2.19	0.43
1:B:3112:ILE:CD1	1:B:3121:LEU:HD23	2.46	0.43
1:B:3322:LEU:C	1:B:3323:MET:HE2	2.44	0.43
1:C:182:ILE:O	1:C:182:ILE:HG13	2.19	0.43
1:C:739:ARG:HD3	1:C:1480:ILE:HD13	2.01	0.43
1:C:982:ASP:OD1	1:C:982:ASP:N	2.52	0.43
1:C:1900:GLU:HG2	1:C:2080:LEU:HD23	2.00	0.43
1:C:2235:ARG:HA	1:C:2297:ARG:HH12	1.83	0.43
1:C:4257:ARG:HA	1:C:4260:SER:HB2	2.01	0.43
1:D:312:LYS:HE2	1:D:393:MET:O	2.19	0.43
1:D:874:LEU:HD12	1:D:875:PRO:CD	2.48	0.43
1:D:891:GLU:HB3	1:D:978:PRO:HG2	2.01	0.43
1:D:895:MET:HE1	1:D:979:ALA:H	1.84	0.43
1:D:951:GLY:O	1:D:1063:ASN:N	2.49	0.43
1:D:995:MET:CE	1:D:1066:ALA:HB2	2.49	0.43
1:D:2086:VAL:HG22	1:D:3687:LEU:HD13	2.00	0.43
1:D:2403:ALA:HB2	1:D:2475:VAL:HG22	2.00	0.43
1:D:3112:ILE:HG13	1:D:3117:PHE:HB2	2.00	0.43
1:D:3587:TRP:HB3	3:L:146:MET:SD	2.58	0.43
3:K:145:MET:HE2	3:K:145:MET:HB2	1.69	0.43
1:A:1549:SER:HB2	1:D:2830:ASN:OD1	2.19	0.43
1:A:2235:ARG:HA	1:A:2297:ARG:HH12	1.83	0.43
1:A:2268:TYR:HB3	1:A:2298:TYR:CZ	2.54	0.43
1:A:3025:ASP:O	1:A:3029:ILE:HG13	2.19	0.43
1:A:3026:ALA:O	1:A:3030:VAL:HG23	2.18	0.43
1:A:3045:VAL:HG22	1:A:3054:LYS:HE2	2.00	0.43
2:E:75:LEU:O	2:E:100:PHE:N	2.36	0.43
2:H:24:VAL:HG22	2:H:48:LYS:HG2	2.00	0.43
1:B:876:PRO:HA	1:B:879:GLU:CG	2.48	0.43
1:B:895:MET:HE1	1:B:979:ALA:H	1.84	0.43
1:B:897:LYS:HB2	1:B:902:TRP:HB2	2.01	0.43
1:B:1100:ARG:HH22	1:B:1236:TYR:N	2.17	0.43
1:B:1177:LEU:O	1:B:1180:GLU:HG3	2.18	0.43
1:B:1694:MET:HE2	1:B:1694:MET:HB2	1.91	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2268:TYR:HB3	1:B:2298:TYR:CZ	2.54	0.43
1:B:2849:HIS:CE1	1:B:2877:LEU:HD11	2.54	0.43
1:B:3182:SER:OG	1:B:3185:ASN:ND2	2.40	0.43
1:B:3245:TYR:HD2	1:B:3246:MET:HE2	1.82	0.43
1:B:4641:PRO:O	1:B:4647:LYS:NZ	2.43	0.43
1:C:387:ILE:HG12	1:C:389:ARG:HB3	1.99	0.43
1:C:891:GLU:HB3	1:C:978:PRO:HG2	2.01	0.43
1:C:1766:PRO:HG3	1:C:1780:PRO:HB3	2.01	0.43
1:C:2086:VAL:HG22	1:C:3687:LEU:HD13	2.00	0.43
1:C:2940:ILE:HG21	1:C:3018:ARG:HG2	2.01	0.43
1:C:3025:ASP:O	1:C:3029:ILE:HG13	2.19	0.43
1:C:3288:LEU:HD12	1:C:3325:LYS:HB3	2.01	0.43
1:C:4635:ILE:HG22	1:C:4670:LEU:HA	2.01	0.43
1:C:4863:GLN:HG2	1:D:4860:ALA:HB2	2.01	0.43
1:D:1825:PHE:CE1	1:D:1842:ILE:HG12	2.53	0.43
1:D:2732:TRP:O	1:D:2736:LYS:HD2	2.18	0.43
1:D:3250:TRP:CD1	1:D:3273:MET:CE	2.99	0.43
3:K:4:GLN:HG2	3:K:5:LEU:N	2.33	0.43
1:A:602:ASP:HA	1:A:642:LEU:HD21	2.00	0.43
1:A:946:LEU:HD11	1:A:999:LEU:HG	1.99	0.43
1:A:1100:ARG:HB3	1:A:1236:TYR:CD1	2.54	0.43
1:A:1100:ARG:HH22	1:A:1236:TYR:N	2.17	0.43
1:A:2785:TRP:CH2	1:A:2847:ASN:HB2	2.54	0.43
1:A:3649:ALA:C	1:A:3652:PRO:HD2	2.44	0.43
1:B:827:LEU:HD23	1:B:827:LEU:HA	1.91	0.43
1:B:891:GLU:HB3	1:B:978:PRO:HG2	2.01	0.43
1:B:2192:MET:HA	1:B:2192:MET:CE	2.44	0.43
1:C:1697:LEU:HD23	1:C:1697:LEU:HA	1.87	0.43
1:C:1959:ALA:C	1:C:1961:LYS:N	2.77	0.43
1:C:2215:PHE:HB2	1:C:2253:LEU:HD13	2.01	0.43
1:C:3965:ILE:O	1:C:3969:LYS:HD3	2.19	0.43
1:C:4186:MET:O	1:C:4190:VAL:HG23	2.19	0.43
1:D:1304:LEU:HD23	1:D:1304:LEU:HA	1.88	0.43
1:D:3288:LEU:HD12	1:D:3325:LYS:HB3	2.01	0.43
1:D:4635:ILE:HG22	1:D:4670:LEU:HA	2.01	0.43
1:A:629:GLN:OE1	1:A:1669:ASN:ND2	2.39	0.43
1:A:1089:ARG:HB3	1:A:1204:VAL:HG23	2.00	0.43
1:A:3001:LYS:O	1:A:3005:THR:HG23	2.18	0.43
1:A:3112:ILE:HG13	1:A:3117:PHE:HB2	2.00	0.43
1:A:3182:SER:OG	1:A:3185:ASN:ND2	2.40	0.43
1:A:4580:THR:OG1	1:A:4733:HIS:NE2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4694:LEU:HA	1:A:4697:VAL:HG22	2.01	0.43
3:I:126:ILE:HA	3:I:129:ALA:HB3	2.00	0.43
1:B:1720:MET:HE3	1:B:1721:MET:HE2	2.00	0.43
1:B:2215:PHE:HB2	1:B:2253:LEU:HD13	2.01	0.43
1:B:2385:GLY:O	1:B:2389:MET:HG3	2.19	0.43
1:B:2968:LEU:HB2	1:B:2969:PRO:HD3	2.00	0.43
1:B:3002:GLU:OE1	1:B:3053:VAL:HG21	2.19	0.43
1:B:3164:GLY:O	1:B:3247:SER:CA	2.66	0.43
1:B:3165:ALA:H	1:B:3245:TYR:N	2.08	0.43
1:B:3249:TRP:HA	1:B:3252:HIS:HB3	2.01	0.43
1:B:3250:TRP:CD1	1:B:3273:MET:CE	2.99	0.43
1:B:4625:ASP:OD1	1:B:4625:ASP:N	2.49	0.43
1:B:4960:LYS:HB2	1:B:4960:LYS:HE2	1.89	0.43
1:C:895:MET:HE1	1:C:979:ALA:H	1.84	0.43
1:C:1089:ARG:HB3	1:C:1204:VAL:HG23	2.00	0.43
1:C:1100:ARG:HB3	1:C:1236:TYR:CD1	2.54	0.43
1:C:2785:TRP:CH2	1:C:2847:ASN:HB2	2.54	0.43
1:C:4618:THR:HG23	1:C:4619:GLU:OE1	2.19	0.43
1:D:163:HIS:HB2	1:D:182:ILE:HG13	2.01	0.43
1:D:394:HIS:CE1	1:D:396:GLU:HB2	2.53	0.43
1:D:1100:ARG:HB3	1:D:1236:TYR:CD1	2.54	0.43
1:D:1436:GLN:H	1:D:1500:ARG:HH22	1.66	0.43
1:D:3016:ARG:HH12	1:D:3063:ASN:HB3	1.83	0.43
1:D:3805:LEU:HD11	1:D:3887:ASP:HB3	2.00	0.43
1:D:3879:LEU:O	1:D:3882:GLN:HG3	2.18	0.43
1:D:4618:THR:HG23	1:D:4619:GLU:OE1	2.19	0.43
3:L:4:GLN:HG2	3:L:5:LEU:N	2.33	0.43
1:A:394:HIS:CE1	1:A:396:GLU:HB2	2.53	0.42
1:A:895:MET:HE1	1:A:979:ALA:H	1.84	0.42
1:A:995:MET:CE	1:A:1066:ALA:HB2	2.49	0.42
1:A:1444:GLY:HA3	1:A:1487:MET:HA	2.01	0.42
1:A:2296:GLU:HG3	1:A:2390:THR:HG22	2.01	0.42
1:A:4635:ILE:HG22	1:A:4670:LEU:HA	2.01	0.42
1:A:4714:PHE:CG	1:D:4294:LEU:HD13	2.54	0.42
1:B:674:TYR:OH	1:B:676:GLU:OE2	2.29	0.42
1:B:1226:TYR:HD1	1:B:1229:ILE:HD11	1.83	0.42
1:B:1494:MET:O	1:B:1494:MET:CG	2.67	0.42
1:B:2403:ALA:HB2	1:B:2475:VAL:HG22	2.00	0.42
1:B:4186:MET:O	1:B:4190:VAL:HG23	2.19	0.42
1:C:163:HIS:HB2	1:C:182:ILE:HG13	2.01	0.42
1:C:602:ASP:HA	1:C:642:LEU:HD21	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1014:GLN:HB3	1:C:1027:ARG:HH21	1.84	0.42
1:C:1100:ARG:HH22	1:C:1236:TYR:N	2.17	0.42
1:C:1282:CYS:SG	1:C:1556:GLU:HG2	2.59	0.42
1:C:1839:LEU:HA	1:C:1842:ILE:HG22	2.01	0.42
1:C:2215:PHE:CG	1:C:2253:LEU:HD22	2.54	0.42
1:C:2849:HIS:CE1	1:C:2877:LEU:HD11	2.54	0.42
1:C:2999:LYS:O	1:C:3003:MET:HG2	2.19	0.42
1:C:4256:MET:HE2	1:C:4256:MET:HB3	1.95	0.42
1:D:877:HIS:HA	1:D:880:ARG:NE	2.34	0.42
1:D:1444:GLY:CA	1:D:1487:MET:HG2	2.49	0.42
1:D:2968:LEU:HB2	1:D:2969:PRO:HD3	2.00	0.42
1:D:3160:ALA:O	1:D:3163:ALA:N	2.52	0.42
1:A:1839:LEU:HA	1:A:1842:ILE:HG22	2.01	0.42
1:A:2139:GLU:HG3	1:A:2192:MET:HE3	2.02	0.42
1:A:2895:PHE:O	1:A:2898:ILE:HG22	2.20	0.42
1:A:3288:LEU:HD12	1:A:3325:LYS:HB3	2.01	0.42
1:A:3879:LEU:O	1:A:3882:GLN:HG3	2.18	0.42
3:I:42:GLN:O	3:I:44:PRO:HD3	2.19	0.42
1:B:514:PHE:CD2	1:B:526:TRP:HB2	2.51	0.42
1:B:602:ASP:HA	1:B:642:LEU:HD21	2.00	0.42
1:B:739:ARG:HD3	1:B:1480:ILE:HD13	2.01	0.42
1:B:982:ASP:N	1:B:982:ASP:OD1	2.52	0.42
1:B:1100:ARG:HB3	1:B:1236:TYR:CD1	2.54	0.42
1:B:2727:HIS:NE2	1:B:2825:ALA:HB1	2.34	0.42
1:B:2956:TYR:HA	1:B:2959:GLU:OE1	2.19	0.42
1:B:3787:VAL:HG12	1:B:3791:GLN:HG3	2.02	0.42
1:B:4011:GLU:HG3	1:B:4015:LYS:HZ3	1.83	0.42
1:C:1494:MET:O	1:C:1494:MET:CG	2.67	0.42
1:C:2296:GLU:HG3	1:C:2390:THR:HG22	2.01	0.42
1:C:3045:VAL:HA	1:C:3054:LYS:HE2	2.00	0.42
1:D:739:ARG:HD3	1:D:1480:ILE:HD13	2.01	0.42
1:D:827:LEU:HD23	1:D:827:LEU:HA	1.91	0.42
1:D:3026:ALA:O	1:D:3030:VAL:HG23	2.18	0.42
1:D:3045:VAL:HA	1:D:3054:LYS:HE2	2.00	0.42
1:D:3162:PHE:O	1:D:3244:SER:C	2.60	0.42
1:D:3589:LYS:HB3	1:D:3589:LYS:HE2	1.39	0.42
1:D:3999:MET:SD	1:D:4101:LEU:HD11	2.59	0.42
3:J:4:GLN:HG2	3:J:5:LEU:N	2.33	0.42
3:K:123:ASP:O	3:K:126:ILE:HG22	2.19	0.42
1:A:891:GLU:HB3	1:A:978:PRO:HG2	2.01	0.42
1:A:1444:GLY:CA	1:A:1487:MET:HG2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2403:ALA:HB2	1:A:2475:VAL:HG22	2.00	0.42
1:A:3016:ARG:NH1	1:A:3063:ASN:HB3	2.34	0.42
1:A:3999:MET:SD	1:A:4101:LEU:HD11	2.59	0.42
2:G:26:HIS:CE1	2:G:105:LEU:HD21	2.54	0.42
1:B:1766:PRO:HG3	1:B:1780:PRO:HB3	2.01	0.42
1:B:1839:LEU:HA	1:B:1842:ILE:HG22	2.01	0.42
1:B:1900:GLU:HG2	1:B:2080:LEU:HD23	2.00	0.42
1:B:2139:GLU:HG3	1:B:2192:MET:HE3	2.02	0.42
1:B:3001:LYS:O	1:B:3005:THR:HG23	2.18	0.42
1:B:3045:VAL:HA	1:B:3054:LYS:HE2	2.00	0.42
1:B:3295:TRP:CD1	1:B:3295:TRP:H	2.37	0.42
1:B:3649:ALA:C	1:B:3652:PRO:HD2	2.44	0.42
1:B:4640:PHE:CG	1:B:4641:PRO:HD3	2.54	0.42
1:C:1253:LYS:HB2	1:C:1253:LYS:HE2	1.76	0.42
1:C:2403:ALA:HB2	1:C:2475:VAL:HG22	2.00	0.42
1:C:2727:HIS:NE2	1:C:2825:ALA:HB1	2.34	0.42
1:C:2833:LEU:HB3	1:C:2837:LEU:HB3	2.01	0.42
1:C:3016:ARG:HH12	1:C:3063:ASN:HB3	1.83	0.42
1:D:920:GLU:O	1:D:924:LEU:N	2.50	0.42
1:D:2215:PHE:CG	1:D:2253:LEU:HD22	2.54	0.42
1:D:2235:ARG:HA	1:D:2297:ARG:HH12	1.84	0.42
1:D:2573:LEU:HD12	1:D:2573:LEU:HA	1.93	0.42
1:D:2956:TYR:HA	1:D:2959:GLU:OE1	2.19	0.42
1:D:3002:GLU:OE1	1:D:3053:VAL:HG21	2.19	0.42
1:D:3650:GLU:HB2	1:D:3651:PRO:HD3	2.01	0.42
1:D:3718:GLU:O	1:D:3722:GLN:HG2	2.19	0.42
1:D:4640:PHE:CG	1:D:4641:PRO:HD3	2.54	0.42
3:L:123:ASP:O	3:L:127:ARG:HG2	2.19	0.42
1:A:163:HIS:HB2	1:A:182:ILE:HG13	2.01	0.42
1:A:877:HIS:HA	1:A:880:ARG:NE	2.34	0.42
1:A:1434:PRO:HA	1:A:1500:ARG:HH12	1.84	0.42
1:A:1494:MET:O	1:A:1494:MET:CG	2.67	0.42
1:A:3965:ILE:O	1:A:3969:LYS:HD3	2.19	0.42
1:B:163:HIS:HB2	1:B:182:ILE:HG13	2.01	0.42
1:B:721:ASP:OD2	1:B:721:ASP:N	2.52	0.42
1:B:2833:LEU:HB3	1:B:2837:LEU:HB3	2.01	0.42
1:B:3718:GLU:O	1:B:3722:GLN:HG2	2.19	0.42
1:B:3965:ILE:O	1:B:3969:LYS:HD3	2.19	0.42
1:B:3999:MET:SD	1:B:4101:LEU:HD11	2.59	0.42
1:C:2139:GLU:HG3	1:C:2192:MET:HE3	2.02	0.42
1:C:3062:ASP:O	1:C:3065:ALA:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3160:ALA:O	1:C:3163:ALA:N	2.52	0.42
1:C:3261:ALA:C	1:C:3263:MET:H	2.28	0.42
1:C:3322:LEU:HB3	1:C:3323:MET:HE2	2.02	0.42
1:C:3649:ALA:C	1:C:3652:PRO:HD2	2.44	0.42
1:C:4270:LYS:HZ3	1:C:4274:MET:HE1	1.84	0.42
1:C:4270:LYS:HZ2	1:C:4274:MET:HE1	1.82	0.42
1:D:182:ILE:HG13	1:D:182:ILE:O	2.19	0.42
1:D:514:PHE:CD2	1:D:526:TRP:HB2	2.51	0.42
1:D:1282:CYS:SG	1:D:1556:GLU:HG2	2.59	0.42
1:D:2849:HIS:CE1	1:D:2877:LEU:HD11	2.54	0.42
1:D:3234:VAL:O	1:D:3238:ILE:HB	2.19	0.42
1:D:3882:GLN:NE2	1:D:3883:GLU:HG3	2.34	0.42
1:D:4641:PRO:HG2	1:D:4646:ASP:O	2.20	0.42
1:D:4694:LEU:HA	1:D:4697:VAL:HG22	2.01	0.42
3:J:106:LEU:HA	3:J:109:VAL:HG12	2.01	0.42
1:A:721:ASP:OD2	1:A:721:ASP:N	2.52	0.42
1:A:1900:GLU:HG2	1:A:2080:LEU:HD23	2.00	0.42
1:A:2385:GLY:O	1:A:2389:MET:HG3	2.19	0.42
1:A:3165:ALA:HB3	1:A:3244:SER:OG	2.20	0.42
1:A:3882:GLN:NE2	1:A:3883:GLU:HG3	2.34	0.42
1:A:4502:MET:SD	1:A:4585:PHE:HB3	2.60	0.42
1:A:4618:THR:HG23	1:A:4619:GLU:OE1	2.19	0.42
1:A:4641:PRO:HG2	1:A:4646:ASP:O	2.20	0.42
2:F:19:LYS:HA	2:F:19:LYS:CE	2.44	0.42
1:B:59:PRO:HG3	1:B:296:ARG:CZ	2.50	0.42
1:B:1444:GLY:CA	1:B:1487:MET:HG2	2.49	0.42
1:B:3209:PRO:HG2	1:B:3214:LEU:HD21	2.01	0.42
1:B:4156:SER:HB3	1:B:4923:MET:HE1	2.00	0.42
1:C:125:TYR:CZ	1:C:417:ARG:HG2	2.55	0.42
1:C:876:PRO:HA	1:C:879:GLU:CG	2.48	0.42
1:C:995:MET:CE	1:C:1066:ALA:HB2	2.49	0.42
1:C:1434:PRO:HA	1:C:1500:ARG:HH12	1.84	0.42
1:C:1894:LEU:HD22	1:C:2065:THR:HG21	2.01	0.42
1:C:2488:LEU:HD21	1:C:2548:LEU:HD22	2.00	0.42
1:C:2956:TYR:HA	1:C:2959:GLU:OE1	2.19	0.42
1:C:3002:GLU:OE1	1:C:3053:VAL:HG21	2.19	0.42
1:C:3718:GLU:O	1:C:3722:GLN:HG2	2.19	0.42
1:C:3805:LEU:HD11	1:C:3887:ASP:HB3	2.00	0.42
1:C:4255:LEU:HD13	1:C:4293:THR:OG1	2.20	0.42
1:C:4640:PHE:CG	1:C:4641:PRO:HD3	2.54	0.42
1:C:4800:ASP:OD1	1:C:4800:ASP:N	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:28:ILE:HG22	1:D:29:HIS:CD2	2.55	0.42
1:D:765:SER:HA	1:D:779:PHE:O	2.20	0.42
1:D:1766:PRO:HG3	1:D:1780:PRO:HB3	2.01	0.42
1:D:2215:PHE:HB2	1:D:2253:LEU:HD13	2.01	0.42
1:D:2635:GLU:OE2	1:D:2680:TYR:OH	2.31	0.42
1:D:2785:TRP:CH2	1:D:2847:ASN:HB2	2.54	0.42
1:D:2940:ILE:HG21	1:D:3018:ARG:HG2	2.01	0.42
1:D:3209:PRO:HG2	1:D:3214:LEU:HD21	2.01	0.42
1:D:3605:MET:HE2	1:D:3605:MET:HB3	1.77	0.42
1:A:255:GLU:OE2	1:A:255:GLU:N	2.45	0.42
1:A:739:ARG:HD3	1:A:1480:ILE:HD13	2.01	0.42
1:A:1038:LEU:O	1:A:1043:LYS:HE2	2.20	0.42
1:A:2071:GLN:O	1:A:3660:ARG:NH1	2.52	0.42
1:A:2727:HIS:NE2	1:A:2825:ALA:HB1	2.34	0.42
1:A:3127:GLN:OE1	1:A:3168:VAL:HG11	2.20	0.42
1:A:3787:VAL:HG12	1:A:3791:GLN:HG3	2.01	0.42
1:A:4000:VAL:O	1:A:4004:VAL:HG23	2.18	0.42
3:I:123:ASP:O	3:I:126:ILE:HG22	2.20	0.42
1:B:877:HIS:HA	1:B:880:ARG:NE	2.35	0.42
1:B:1894:LEU:HD23	1:B:1894:LEU:HA	1.94	0.42
1:B:2235:ARG:HA	1:B:2297:ARG:HH12	1.83	0.42
1:B:3016:ARG:NH1	1:B:3063:ASN:HB3	2.34	0.42
1:B:3322:LEU:HB3	1:B:3323:MET:HE2	2.02	0.42
1:C:765:SER:HA	1:C:779:PHE:O	2.20	0.42
1:C:1004:HIS:HD2	1:C:1035:TYR:HB2	1.85	0.42
1:C:1444:GLY:CA	1:C:1487:MET:HG2	2.49	0.42
1:C:2979:ARG:NH1	1:C:3039:THR:HA	2.35	0.42
1:C:3787:VAL:HG12	1:C:3791:GLN:HG3	2.02	0.42
1:C:3999:MET:SD	1:C:4101:LEU:HD11	2.59	0.42
1:D:897:LYS:HB2	1:D:902:TRP:HB2	2.01	0.42
1:D:2071:GLN:O	1:D:3660:ARG:NH1	2.52	0.42
1:D:2290:TRP:CZ3	1:D:2292:PRO:HB3	2.55	0.42
1:D:2895:PHE:O	1:D:2898:ILE:HG22	2.20	0.42
1:D:3016:ARG:NH1	1:D:3063:ASN:HB3	2.34	0.42
1:D:4094:ILE:O	1:D:4098:VAL:HG23	2.20	0.42
1:D:4255:LEU:HD13	1:D:4293:THR:OG1	2.20	0.42
3:J:22:LYS:HD3	3:J:22:LYS:N	2.32	0.42
3:J:123:ASP:O	3:J:126:ILE:HG22	2.20	0.42
1:A:28:ILE:HG22	1:A:29:HIS:CD2	2.55	0.42
1:A:125:TYR:CZ	1:A:417:ARG:HG2	2.55	0.42
1:A:168:GLN:HE21	1:D:240:HIS:HB2	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:561:ARG:HG2	1:A:561:ARG:HH11	1.85	0.42
1:A:718:VAL:HG23	1:A:793:SER:HB3	2.02	0.42
1:A:982:ASP:OD1	1:A:982:ASP:N	2.52	0.42
1:A:2729:HIS:NE2	1:A:2763:LEU:HD21	2.35	0.42
1:A:2926:LEU:HD23	1:A:2926:LEU:HA	1.86	0.42
1:A:3062:ASP:O	1:A:3065:ALA:HB3	2.20	0.42
2:F:26:HIS:CE1	2:F:105:LEU:HD21	2.54	0.42
2:H:51:ILE:O	2:H:53:LYS:NZ	2.39	0.42
3:I:30:THR:HG22	3:I:53:ILE:HD12	2.02	0.42
1:B:1253:LYS:HE2	1:B:1253:LYS:HB2	1.76	0.42
1:B:1889:PRO:HB2	1:B:1890:LYS:H	1.64	0.42
1:B:2071:GLN:O	1:B:3660:ARG:NH1	2.52	0.42
1:B:3062:ASP:O	1:B:3065:ALA:HB3	2.20	0.42
1:B:3165:ALA:HB3	1:B:3244:SER:OG	2.20	0.42
1:B:4795:LYS:HA	1:B:4795:LYS:HD2	1.67	0.42
1:C:3209:PRO:HG2	1:C:3214:LEU:HD21	2.01	0.42
1:C:3299:LEU:H	1:C:3299:LEU:HG	1.63	0.42
1:C:4140:GLY:HA3	1:C:4146:GLU:OE1	2.20	0.42
1:D:874:LEU:HD23	1:D:879:GLU:HB3	2.01	0.42
1:D:1100:ARG:HH22	1:D:1236:TYR:N	2.17	0.42
1:D:1839:LEU:HA	1:D:1842:ILE:HG22	2.01	0.42
1:D:2139:GLU:HG3	1:D:2192:MET:HE3	2.02	0.42
1:D:2729:HIS:NE2	1:D:2763:LEU:HD21	2.35	0.42
1:D:3045:VAL:HG22	1:D:3054:LYS:HE2	2.00	0.42
1:D:3165:ALA:HB3	1:D:3244:SER:OG	2.20	0.42
1:D:3249:TRP:HA	1:D:3252:HIS:HB3	2.01	0.42
1:D:3649:ALA:C	1:D:3652:PRO:HD2	2.44	0.42
3:L:30:THR:HG22	3:L:53:ILE:HD12	2.02	0.42
3:K:123:ASP:O	3:K:127:ARG:HG2	2.19	0.42
1:A:312:LYS:HE2	1:A:393:MET:O	2.19	0.42
1:A:500:GLU:HB3	1:A:504:ARG:NH1	2.35	0.42
1:A:1014:GLN:HB3	1:A:1027:ARG:HH21	1.84	0.42
1:A:1761:MET:C	1:A:1762:GLN:OE1	2.63	0.42
1:A:3002:GLU:OE1	1:A:3053:VAL:HG21	2.19	0.42
1:A:3209:PRO:HG2	1:A:3214:LEU:HD21	2.01	0.42
1:A:3845:LEU:HA	1:A:3848:GLU:HG2	2.00	0.42
1:A:4040:LYS:HD2	1:A:4042:VAL:N	2.25	0.42
1:A:4094:ILE:O	1:A:4098:VAL:HG23	2.20	0.42
1:A:4737:PHE:CD1	1:B:4783:VAL:HG13	2.54	0.42
1:B:28:ILE:HG22	1:B:29:HIS:CD2	2.55	0.42
1:B:1282:CYS:SG	1:B:1556:GLU:HG2	2.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1959:ALA:C	1:B:1961:LYS:N	2.76	0.42
1:B:2729:HIS:NE2	1:B:2763:LEU:HD21	2.34	0.42
1:C:28:ILE:HG22	1:C:29:HIS:CD2	2.55	0.42
1:C:59:PRO:HG3	1:C:296:ARG:CZ	2.50	0.42
1:C:537:LEU:O	1:C:541:ILE:HG12	2.20	0.42
1:C:895:MET:HE3	1:C:978:PRO:CD	2.34	0.42
1:C:2077:ASP:OD2	1:C:2080:LEU:N	2.52	0.42
1:C:2605:MET:HE3	1:C:2605:MET:HB3	1.74	0.42
1:C:2968:LEU:HB2	1:C:2969:PRO:HD3	2.00	0.42
1:C:3016:ARG:NH1	1:C:3063:ASN:HB3	2.34	0.42
1:D:675:TYR:HB3	1:D:822:CYS:SG	2.60	0.42
1:D:2202:TYR:CE2	1:D:2206:ILE:HD11	2.55	0.42
1:D:2385:GLY:O	1:D:2389:MET:HG3	2.19	0.42
1:D:3164:GLY:CA	1:D:3244:SER:N	2.83	0.42
1:D:3322:LEU:C	1:D:3323:MET:HE2	2.44	0.42
1:D:4654:MET:HE3	1:D:4663:ARG:NE	2.35	0.42
1:A:2277:CYS:HB3	1:A:2280:LEU:HB2	2.02	0.42
1:A:3291:ASP:C	1:A:3293:GLY:H	2.28	0.42
1:B:629:GLN:OE1	1:B:1669:ASN:ND2	2.39	0.42
1:B:675:TYR:HB3	1:B:822:CYS:SG	2.60	0.42
1:B:2277:CYS:HB3	1:B:2280:LEU:HB2	2.02	0.42
1:B:2979:ARG:NH1	1:B:3039:THR:HA	2.35	0.42
1:B:3063:ASN:HA	1:B:3066:GLU:CD	2.45	0.42
1:B:3109:PHE:O	1:B:3112:ILE:HG22	2.20	0.42
1:B:3261:ALA:C	1:B:3263:MET:H	2.28	0.42
1:C:877:HIS:HA	1:C:880:ARG:NE	2.34	0.42
1:C:2326:ARG:HD3	1:C:2326:ARG:HA	1.75	0.42
1:C:2385:GLY:O	1:C:2389:MET:HG3	2.19	0.42
1:C:3109:PHE:O	1:C:3112:ILE:HG22	2.20	0.42
1:C:3164:GLY:CA	1:C:3244:SER:N	2.83	0.42
1:C:3165:ALA:HB3	1:C:3244:SER:OG	2.20	0.42
1:C:3234:VAL:O	1:C:3238:ILE:HB	2.19	0.42
1:C:3287:ASN:O	1:C:3290:ILE:HG12	2.20	0.42
1:C:3295:TRP:CD1	1:C:3295:TRP:H	2.37	0.42
1:C:3793:LEU:HD23	1:C:3793:LEU:HA	1.90	0.42
1:C:4694:LEU:HA	1:C:4697:VAL:HG22	2.01	0.42
1:D:59:PRO:HG3	1:D:296:ARG:CZ	2.50	0.42
1:D:125:TYR:CZ	1:D:417:ARG:HG2	2.55	0.42
1:D:246:THR:OG1	1:D:247:VAL:N	2.53	0.42
1:D:500:GLU:HB3	1:D:504:ARG:NH1	2.35	0.42
1:D:561:ARG:HG2	1:D:561:ARG:HH11	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:785:ASP:OD1	1:D:786:GLY:N	2.53	0.42
1:D:2077:ASP:OD2	1:D:2080:LEU:N	2.52	0.42
1:D:2727:HIS:NE2	1:D:2825:ALA:HB1	2.34	0.42
1:D:3109:PHE:O	1:D:3112:ILE:HG22	2.20	0.42
1:D:3127:GLN:OE1	1:D:3168:VAL:HG11	2.20	0.42
1:D:3127:GLN:HB3	1:D:3183:ILE:HD12	2.02	0.42
1:D:3299:LEU:H	1:D:3299:LEU:HG	1.63	0.42
1:D:4140:GLY:HA3	1:D:4146:GLU:OE1	2.20	0.42
1:D:4186:MET:O	1:D:4190:VAL:HG23	2.19	0.42
1:D:4270:LYS:HG3	1:D:4274:MET:HE2	2.02	0.42
1:D:4502:MET:SD	1:D:4585:PHE:HB3	2.60	0.42
1:A:182:ILE:HG13	1:A:182:ILE:O	2.19	0.42
1:A:897:LYS:HB2	1:A:902:TRP:HB2	2.01	0.42
1:A:1004:HIS:HD2	1:A:1035:TYR:HB2	1.85	0.42
1:A:1894:LEU:HD22	1:A:2065:THR:HG21	2.02	0.42
1:A:2202:TYR:CE2	1:A:2206:ILE:HD11	2.55	0.42
1:A:2488:LEU:HD21	1:A:2548:LEU:HD22	2.00	0.42
1:A:2940:ILE:HG21	1:A:3018:ARG:HG2	2.01	0.42
1:A:2956:TYR:HA	1:A:2959:GLU:OE1	2.19	0.42
1:A:2968:LEU:HB2	1:A:2969:PRO:HD3	2.00	0.42
1:A:3172:GLU:OE2	1:A:3175:LEU:N	2.50	0.42
1:A:3319:PHE:O	1:A:3323:MET:HE3	2.20	0.42
1:A:3650:GLU:HB2	1:A:3651:PRO:HD3	2.01	0.42
1:A:3718:GLU:O	1:A:3722:GLN:HG2	2.19	0.42
2:E:26:HIS:CE1	2:E:105:LEU:HD21	2.54	0.42
1:B:1444:GLY:HA3	1:B:1487:MET:HG2	2.02	0.42
1:B:1761:MET:C	1:B:1762:GLN:OE1	2.63	0.42
1:B:3127:GLN:OE1	1:B:3168:VAL:HG11	2.20	0.42
1:B:3287:ASN:O	1:B:3290:ILE:HG12	2.20	0.42
1:B:4257:ARG:HA	1:B:4260:SER:HB2	2.01	0.42
1:C:1761:MET:C	1:C:1762:GLN:OE1	2.63	0.42
1:C:2071:GLN:O	1:C:3660:ARG:NH1	2.52	0.42
1:C:2290:TRP:CZ3	1:C:2292:PRO:HB3	2.55	0.42
1:C:3063:ASN:HA	1:C:3066:GLU:CD	2.45	0.42
1:C:4094:ILE:O	1:C:4098:VAL:HG23	2.20	0.42
1:D:1004:HIS:HD2	1:D:1035:TYR:HB2	1.85	0.42
1:D:2999:LYS:O	1:D:3003:MET:HG2	2.19	0.42
1:D:3287:ASN:O	1:D:3290:ILE:HG12	2.20	0.42
1:D:3787:VAL:HG12	1:D:3791:GLN:HG3	2.01	0.42
1:D:3965:ILE:O	1:D:3969:LYS:HD3	2.19	0.42
3:J:42:GLN:O	3:J:44:PRO:HD3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:59:PRO:HG3	1:A:296:ARG:CZ	2.50	0.41
1:A:2849:HIS:CE1	1:A:2877:LEU:HD11	2.54	0.41
1:A:3063:ASN:HA	1:A:3066:GLU:CD	2.45	0.41
1:A:3261:ALA:C	1:A:3263:MET:H	2.28	0.41
1:A:3805:LEU:HD11	1:A:3887:ASP:HB3	2.00	0.41
1:A:4186:MET:O	1:A:4190:VAL:HG23	2.19	0.41
1:A:4287:TYR:HE1	1:B:4591:TYR:HD2	1.67	0.41
1:B:253:GLY:O	1:B:257:ARG:HG2	2.20	0.41
1:B:537:LEU:O	1:B:541:ILE:HG12	2.20	0.41
1:B:718:VAL:HG23	1:B:793:SER:HB3	2.02	0.41
1:B:804:LEU:HD13	1:B:832:LEU:HD21	2.02	0.41
1:B:1089:ARG:HB3	1:B:1204:VAL:HG23	2.00	0.41
1:B:1434:PRO:HA	1:B:1500:ARG:HH12	1.84	0.41
1:B:2957:GLU:O	1:B:2961:LYS:HE2	2.20	0.41
1:B:3016:ARG:HG2	1:B:3017:HIS:NE2	2.35	0.41
1:B:3102:LEU:HD13	1:B:3137:LEU:CD2	2.50	0.41
1:C:494:MET:HA	1:C:494:MET:CE	2.47	0.41
1:C:1694:MET:HE2	1:C:1694:MET:HB2	1.91	0.41
1:C:2277:CYS:HB3	1:C:2280:LEU:HB2	2.02	0.41
1:C:3067:ASP:O	1:C:3071:THR:HG23	2.20	0.41
1:C:3882:GLN:NE2	1:C:3883:GLU:HG3	2.34	0.41
1:C:4502:MET:SD	1:C:4585:PHE:HB3	2.60	0.41
1:D:1761:MET:C	1:D:1762:GLN:OE1	2.63	0.41
3:L:123:ASP:O	3:L:126:ILE:HG22	2.19	0.41
1:A:246:THR:OG1	1:A:247:VAL:N	2.53	0.41
1:A:677:LEU:HD12	1:A:801:ARG:O	2.20	0.41
1:A:2290:TRP:CZ3	1:A:2292:PRO:HB3	2.55	0.41
1:A:3127:GLN:HB3	1:A:3183:ILE:HD12	2.02	0.41
1:A:3287:ASN:O	1:A:3290:ILE:HG12	2.20	0.41
3:I:106:LEU:HA	3:I:109:VAL:HG12	2.01	0.41
3:I:123:ASP:O	3:I:127:ARG:HG2	2.20	0.41
1:B:23:GLN:HG3	1:B:34:LYS:HD2	2.02	0.41
1:B:1760:ARG:NE	1:B:1762:GLN:HE22	2.14	0.41
1:B:2172:MET:O	1:B:2176:VAL:N	2.43	0.41
1:B:2290:TRP:CZ3	1:B:2292:PRO:HB3	2.55	0.41
1:B:2319:VAL:O	1:B:2323:LEU:HG	2.21	0.41
1:B:3587:TRP:CG	3:J:145:MET:HE3	2.54	0.41
1:B:4641:PRO:HG2	1:B:4646:ASP:O	2.20	0.41
1:B:4748:MET:N	1:B:4748:MET:SD	2.93	0.41
1:C:785:ASP:OD1	1:C:786:GLY:N	2.53	0.41
1:C:2729:HIS:NE2	1:C:2763:LEU:HD21	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3260:ARG:NH2	1:C:3264:CYS:SG	2.93	0.41
1:D:234:LEU:HD13	1:D:405:LEU:HD22	2.03	0.41
1:D:804:LEU:HD13	1:D:832:LEU:HD21	2.02	0.41
1:D:1434:PRO:HA	1:D:1500:ARG:HH12	1.84	0.41
1:D:3062:ASP:O	1:D:3065:ALA:HB3	2.20	0.41
3:L:106:LEU:HA	3:L:109:VAL:HG12	2.01	0.41
3:K:42:GLN:O	3:K:44:PRO:HD3	2.19	0.41
1:A:785:ASP:OD1	1:A:786:GLY:N	2.53	0.41
1:A:895:MET:HE3	1:A:978:PRO:CD	2.34	0.41
1:A:1552:VAL:HG12	1:A:1553:PHE:HD1	1.86	0.41
1:A:1766:PRO:HG3	1:A:1780:PRO:HB3	2.01	0.41
1:A:2833:LEU:HB3	1:A:2837:LEU:HB3	2.01	0.41
2:H:26:HIS:CE1	2:H:105:LEU:HD21	2.54	0.41
1:B:448:PRO:HB2	1:B:451:SER:HG	1.85	0.41
1:B:765:SER:HA	1:B:779:PHE:O	2.20	0.41
1:B:885:LEU:O	1:B:889:ILE:HG12	2.21	0.41
1:B:903:GLN:HB2	1:B:913:ARG:HG3	2.02	0.41
1:B:1434:PRO:HA	1:B:1500:ARG:NH1	2.36	0.41
1:B:2326:ARG:HA	1:B:2326:ARG:HD3	1.75	0.41
1:B:3650:GLU:HB2	1:B:3651:PRO:HD3	2.01	0.41
1:B:3926:GLY:O	1:B:3927:PRO:C	2.63	0.41
1:B:4694:LEU:HA	1:B:4697:VAL:HG22	2.01	0.41
1:C:561:ARG:HG2	1:C:561:ARG:HH11	1.85	0.41
1:C:1724:GLU:HG2	1:C:2165:LEU:HD23	2.03	0.41
1:C:3650:GLU:HB2	1:C:3651:PRO:HD3	2.01	0.41
1:C:4257:ARG:O	1:C:4261:LEU:HG	2.21	0.41
1:C:4270:LYS:HG3	1:C:4274:MET:HE2	2.02	0.41
1:C:4641:PRO:HG2	1:C:4646:ASP:O	2.20	0.41
1:C:4898:PHE:O	1:C:4904:GLY:HA3	2.20	0.41
1:D:537:LEU:O	1:D:541:ILE:HG12	2.20	0.41
1:D:1434:PRO:HA	1:D:1500:ARG:NH1	2.36	0.41
1:D:2296:GLU:HG3	1:D:2390:THR:HG22	2.01	0.41
1:D:2734:MET:HG2	1:D:2823:PRO:HG2	2.02	0.41
1:D:3025:ASP:O	1:D:3029:ILE:HG13	2.19	0.41
1:D:3260:ARG:NH2	1:D:3264:CYS:SG	2.94	0.41
1:D:4257:ARG:HA	1:D:4260:SER:HB2	2.01	0.41
3:K:118:THR:O	3:K:122:VAL:HG23	2.20	0.41
1:A:370:LEU:CD2	1:A:395:HIS:HB3	2.51	0.41
1:A:675:TYR:HB3	1:A:822:CYS:SG	2.60	0.41
1:A:1174:MET:HE3	1:A:1174:MET:HB3	1.81	0.41
1:A:1444:GLY:HA3	1:A:1487:MET:HG2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1906:MET:HE3	1:A:1906:MET:HB3	1.87	0.41
1:A:3260:ARG:NH2	1:A:3264:CYS:SG	2.94	0.41
1:A:3587:TRP:HA	1:A:3590:LEU:HD12	2.02	0.41
1:A:4140:GLY:HA3	1:A:4146:GLU:OE1	2.20	0.41
1:A:4255:LEU:HD13	1:A:4293:THR:OG1	2.20	0.41
1:A:4280:VAL:CG2	1:B:4487:TYR:HE2	2.34	0.41
1:B:234:LEU:HD13	1:B:405:LEU:HD22	2.03	0.41
1:B:677:LEU:HD12	1:B:801:ARG:O	2.20	0.41
1:B:1552:VAL:HG12	1:B:1553:PHE:HD1	1.86	0.41
1:B:4502:MET:SD	1:B:4585:PHE:HB3	2.60	0.41
1:C:1038:LEU:O	1:C:1043:LYS:HE2	2.20	0.41
1:C:1124:PRO:HD3	1:C:1596:TRP:NE1	2.36	0.41
1:C:1649:GLU:HG2	1:C:1650:LEU:N	2.36	0.41
1:C:2957:GLU:O	1:C:2961:LYS:HE2	2.20	0.41
1:C:3072:MET:CE	1:C:3140:LEU:HG	2.51	0.41
1:C:3249:TRP:HA	1:C:3252:HIS:HB3	2.01	0.41
1:C:3291:ASP:C	1:C:3293:GLY:H	2.28	0.41
1:C:3972:MET:HE2	1:C:3972:MET:HA	2.02	0.41
1:D:1038:LEU:HD23	1:D:1039:ASP:O	2.20	0.41
1:D:3102:LEU:HD13	1:D:3137:LEU:CD2	2.50	0.41
3:L:42:GLN:O	3:L:44:PRO:HD3	2.19	0.41
3:K:30:THR:HG22	3:K:53:ILE:HD12	2.02	0.41
1:A:23:GLN:HG3	1:A:34:LYS:HD2	2.02	0.41
1:A:799:LYS:NZ	1:A:1620:GLN:OE1	2.54	0.41
1:A:874:LEU:HD12	1:A:875:PRO:CD	2.48	0.41
1:A:1038:LEU:HD23	1:A:1039:ASP:O	2.20	0.41
1:A:1446:ILE:HG12	1:A:1542:ALA:HB2	2.02	0.41
1:A:2319:VAL:O	1:A:2323:LEU:HG	2.21	0.41
1:A:2429:LEU:HD21	1:A:2483:PHE:CE1	2.56	0.41
1:A:2957:GLU:O	1:A:2961:LYS:HE2	2.20	0.41
1:A:4294:LEU:HD22	1:B:4719:PHE:CD2	2.55	0.41
1:A:4748:MET:N	1:A:4748:MET:SD	2.93	0.41
1:B:169:ARG:HA	1:B:169:ARG:HD3	1.94	0.41
1:B:500:GLU:HB3	1:B:504:ARG:NH1	2.35	0.41
1:B:561:ARG:HG2	1:B:561:ARG:HH11	1.85	0.41
1:B:1649:GLU:HG2	1:B:1650:LEU:N	2.36	0.41
1:B:1823:LYS:HB2	1:B:1905:GLN:HE22	1.86	0.41
1:B:3793:LEU:HD23	1:B:3793:LEU:HA	1.90	0.41
1:B:4000:VAL:O	1:B:4004:VAL:HG23	2.18	0.41
1:B:4140:GLY:HA3	1:B:4146:GLU:OE1	2.20	0.41
1:B:4255:LEU:HD13	1:B:4293:THR:OG1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4898:PHE:O	1:B:4904:GLY:HA3	2.20	0.41
1:C:885:LEU:O	1:C:889:ILE:HG12	2.21	0.41
1:C:2351:ILE:HD11	1:C:2460:PHE:HB2	2.03	0.41
1:C:2573:LEU:HD12	1:C:2573:LEU:HA	1.93	0.41
1:C:2895:PHE:O	1:C:2898:ILE:HG22	2.20	0.41
1:C:3127:GLN:OE1	1:C:3168:VAL:HG11	2.20	0.41
1:C:3322:LEU:C	1:C:3323:MET:HE2	2.44	0.41
1:D:721:ASP:OD2	1:D:721:ASP:N	2.52	0.41
1:D:1038:LEU:O	1:D:1043:LYS:HE2	2.20	0.41
1:D:1959:ALA:C	1:D:1961:LYS:N	2.77	0.41
1:D:2351:ILE:HD11	1:D:2460:PHE:HB2	2.03	0.41
1:D:2435:VAL:HG11	1:D:2468:MET:HE3	2.03	0.41
3:K:106:LEU:HA	3:K:109:VAL:HG12	2.01	0.41
1:A:804:LEU:HD13	1:A:832:LEU:HD21	2.02	0.41
1:A:874:LEU:HD23	1:A:879:GLU:HB3	2.02	0.41
1:A:916:PRO:O	1:A:919:VAL:HG22	2.21	0.41
1:A:3000:GLU:HA	1:A:3003:MET:HG2	2.02	0.41
1:A:3072:MET:CE	1:A:3140:LEU:HG	2.51	0.41
1:A:3109:PHE:O	1:A:3112:ILE:HG22	2.20	0.41
1:A:3160:ALA:HB2	1:A:3240:PRO:HB2	2.02	0.41
1:A:3164:GLY:CA	1:A:3244:SER:N	2.83	0.41
1:A:3322:LEU:HB3	1:A:3323:MET:HE2	2.02	0.41
1:A:4268:MET:CE	1:B:4481:TRP:CZ2	2.95	0.41
1:A:4270:LYS:HG3	1:A:4274:MET:HE2	2.02	0.41
3:I:90:PHE:HZ	3:I:99:GLY:O	2.04	0.41
1:B:388:GLN:HG3	1:B:388:GLN:O	2.21	0.41
1:B:785:ASP:OD1	1:B:786:GLY:N	2.53	0.41
1:B:1004:HIS:HD2	1:B:1035:TYR:HB2	1.85	0.41
1:B:2351:ILE:HD11	1:B:2460:PHE:HB2	2.03	0.41
1:B:3072:MET:CE	1:B:3140:LEU:HG	2.51	0.41
1:B:3161:ALA:HA	1:B:3244:SER:OG	2.21	0.41
1:B:3319:PHE:O	1:B:3323:MET:HE3	2.20	0.41
1:B:3882:GLN:NE2	1:B:3883:GLU:HG3	2.34	0.41
1:C:246:THR:OG1	1:C:247:VAL:N	2.53	0.41
1:C:629:GLN:OE1	1:C:1669:ASN:ND2	2.39	0.41
1:C:674:TYR:CE1	1:C:756:SER:HB2	2.56	0.41
1:C:677:LEU:HD12	1:C:801:ARG:O	2.20	0.41
1:C:2691:LYS:O	1:C:2694:SER:OG	2.35	0.41
1:C:2734:MET:HG2	1:C:2823:PRO:HG2	2.02	0.41
1:C:3016:ARG:HG2	1:C:3017:HIS:NE2	2.35	0.41
1:C:3102:LEU:HD13	1:C:3137:LEU:CD2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3177:LYS:O	1:C:3185:ASN:ND2	2.54	0.41
1:C:3180:ILE:HG13	1:C:3181:TYR:N	2.36	0.41
1:C:3926:GLY:O	1:C:3927:PRO:C	2.63	0.41
1:C:4748:MET:N	1:C:4748:MET:SD	2.94	0.41
1:D:916:PRO:O	1:D:919:VAL:HG22	2.21	0.41
1:D:1979:PHE:CE1	1:D:1988:CYS:HB3	2.52	0.41
1:D:2429:LEU:HD21	1:D:2483:PHE:CE1	2.56	0.41
1:D:2679:ASP:HB2	1:D:2920:ARG:NH1	2.36	0.41
1:D:2833:LEU:HB3	1:D:2837:LEU:HB3	2.01	0.41
1:D:2926:LEU:HD23	1:D:2926:LEU:HA	1.86	0.41
1:D:2979:ARG:NH1	1:D:3039:THR:HA	2.35	0.41
1:D:3016:ARG:HG2	1:D:3017:HIS:NE2	2.35	0.41
1:D:3161:ALA:HA	1:D:3244:SER:OG	2.21	0.41
1:D:3261:ALA:C	1:D:3263:MET:H	2.28	0.41
1:D:3319:PHE:O	1:D:3323:MET:HE3	2.20	0.41
1:D:3926:GLY:O	1:D:3927:PRO:C	2.63	0.41
1:D:4027:THR:HG21	1:D:4084:VAL:HG11	2.03	0.41
1:D:4795:LYS:HD2	1:D:4795:LYS:HA	1.67	0.41
3:J:118:THR:O	3:J:122:VAL:HG23	2.20	0.41
3:K:16:ALA:HA	3:K:19:LEU:HD12	2.03	0.41
3:K:20:PHE:HA	3:K:22:LYS:NZ	2.36	0.41
1:A:388:GLN:HG3	1:A:388:GLN:O	2.21	0.41
1:A:537:LEU:O	1:A:541:ILE:HG12	2.20	0.41
1:A:885:LEU:O	1:A:889:ILE:HG12	2.21	0.41
1:A:1823:LYS:HB2	1:A:1905:GLN:HE22	1.86	0.41
1:A:2593:VAL:HG12	1:A:2644:LEU:HB2	2.03	0.41
1:A:2679:ASP:HB2	1:A:2920:ARG:NH1	2.36	0.41
1:A:3067:ASP:O	1:A:3071:THR:HG23	2.20	0.41
1:A:3249:TRP:HA	1:A:3252:HIS:HB3	2.01	0.41
1:B:125:TYR:CZ	1:B:417:ARG:HG2	2.55	0.41
1:B:1038:LEU:O	1:B:1043:LYS:HE2	2.20	0.41
1:B:2202:TYR:CE2	1:B:2206:ILE:HD11	2.55	0.41
1:B:3067:ASP:O	1:B:3071:THR:HG23	2.20	0.41
1:B:3164:GLY:CA	1:B:3244:SER:N	2.83	0.41
1:B:3291:ASP:C	1:B:3293:GLY:H	2.28	0.41
1:C:439:LYS:HA	1:C:439:LYS:HD3	1.89	0.41
1:C:659:ILE:HD12	1:C:661:LEU:HD11	2.02	0.41
1:C:804:LEU:HD13	1:C:832:LEU:HD21	2.02	0.41
1:C:874:LEU:HD23	1:C:879:GLU:HB3	2.02	0.41
1:C:1033:VAL:HG22	1:C:1034:PRO:HD2	2.02	0.41
1:C:3093:ILE:HD12	1:C:3093:ILE:HA	1.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3160:ALA:HB2	1:C:3240:PRO:HB2	2.02	0.41
1:C:3298:ARG:NH1	3:K:133:GLY:HA3	2.33	0.41
1:C:4267:GLN:O	1:C:4271:VAL:HG23	2.21	0.41
1:D:659:ILE:HD12	1:D:661:LEU:HD11	2.03	0.41
1:D:931:TYR:HA	1:D:934:GLN:OE1	2.21	0.41
1:D:1124:PRO:HD3	1:D:1596:TRP:NE1	2.36	0.41
1:D:2593:VAL:HG12	1:D:2644:LEU:HB2	2.03	0.41
1:D:2898:ILE:HD12	1:D:2898:ILE:HA	1.94	0.41
1:D:3034:HIS:O	1:D:3038:GLN:HG2	2.21	0.41
1:D:3067:ASP:O	1:D:3071:THR:HG23	2.20	0.41
1:D:4748:MET:N	1:D:4748:MET:SD	2.94	0.41
1:A:903:GLN:HB2	1:A:913:ARG:HG3	2.03	0.41
1:A:2351:ILE:HD11	1:A:2460:PHE:HB2	2.03	0.41
1:A:2435:VAL:HG11	1:A:2468:MET:HE3	2.03	0.41
1:A:2619:LYS:O	1:A:2626:GLY:HA2	2.21	0.41
1:A:3164:GLY:HA2	1:A:3247:SER:N	2.36	0.41
1:A:3197:LEU:HA	1:A:3198:PRO:HD3	1.77	0.41
1:A:4740:ALA:HB1	1:B:4780:LEU:HD23	2.03	0.41
2:H:26:HIS:ND1	2:H:105:LEU:HD11	2.36	0.41
1:B:931:TYR:HA	1:B:934:GLN:OE1	2.21	0.41
1:B:2793:ARG:HD3	1:B:2794:GLU:N	2.36	0.41
1:B:3160:ALA:O	1:B:3163:ALA:N	2.52	0.41
1:B:3164:GLY:HA2	1:B:3247:SER:N	2.36	0.41
1:B:4052:MET:HE2	1:B:4063:THR:HG23	2.03	0.41
1:B:4094:ILE:O	1:B:4098:VAL:HG23	2.20	0.41
1:C:253:GLY:O	1:C:257:ARG:HG2	2.20	0.41
1:C:675:TYR:HB3	1:C:822:CYS:SG	2.60	0.41
1:C:1038:LEU:HD23	1:C:1039:ASP:O	2.20	0.41
1:C:1434:PRO:HA	1:C:1500:ARG:NH1	2.36	0.41
1:C:1552:VAL:HG12	1:C:1553:PHE:HD1	1.86	0.41
1:C:3161:ALA:HA	1:C:3244:SER:OG	2.21	0.41
1:C:3164:GLY:HA2	1:C:3247:SER:N	2.36	0.41
1:C:3319:PHE:O	1:C:3323:MET:HE3	2.20	0.41
1:C:3587:TRP:HA	1:C:3590:LEU:HD12	2.02	0.41
1:D:388:GLN:HG3	1:D:388:GLN:O	2.21	0.41
1:D:677:LEU:HD12	1:D:801:ARG:O	2.20	0.41
1:D:1446:ILE:HG12	1:D:1542:ALA:HB2	2.02	0.41
1:D:4257:ARG:O	1:D:4261:LEU:HG	2.21	0.41
3:J:15:GLU:O	3:J:19:LEU:HG	2.21	0.41
3:K:15:GLU:O	3:K:19:LEU:HG	2.21	0.41
3:K:90:PHE:HZ	3:K:99:GLY:O	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:552:SER:HB2	1:A:588:ILE:HD13	2.03	0.41
1:A:606:ARG:NH2	1:A:1632:ILE:HG23	2.36	0.41
1:A:765:SER:HA	1:A:779:PHE:O	2.20	0.41
1:A:882:ARG:HG3	1:A:883:GLU:N	2.36	0.41
1:A:889:ILE:HA	1:A:892:LEU:HB2	2.03	0.41
1:A:1074:ARG:O	1:A:1077:VAL:HG23	2.21	0.41
1:A:1253:LYS:HE2	1:A:1253:LYS:HB2	1.76	0.41
1:A:1434:PRO:HA	1:A:1500:ARG:NH1	2.36	0.41
1:A:1649:GLU:HG2	1:A:1650:LEU:N	2.36	0.41
1:A:1724:GLU:HG2	1:A:2165:LEU:HD23	2.03	0.41
1:A:1760:ARG:NE	1:A:1762:GLN:HE22	2.14	0.41
1:A:1959:ALA:C	1:A:1961:LYS:N	2.77	0.41
1:A:2241:ASP:OD2	1:A:2297:ARG:NH2	2.54	0.41
1:A:2691:LYS:O	1:A:2694:SER:OG	2.35	0.41
1:A:2734:MET:HE1	1:A:2825:ALA:CB	2.51	0.41
1:A:2798:MET:HB3	1:B:1498:GLN:HE22	1.86	0.41
1:A:2857:LYS:O	1:A:2861:GLU:OE1	2.39	0.41
1:A:2979:ARG:NH1	1:A:3039:THR:HA	2.35	0.41
1:A:3016:ARG:HG2	1:A:3017:HIS:NE2	2.35	0.41
1:A:3093:ILE:HD12	1:A:3093:ILE:HA	1.89	0.41
1:A:3250:TRP:CG	1:A:3273:MET:HE3	2.56	0.41
1:A:4257:ARG:O	1:A:4261:LEU:HG	2.21	0.41
1:A:4898:PHE:O	1:A:4904:GLY:HA3	2.20	0.41
2:E:26:HIS:ND1	2:E:105:LEU:HD11	2.36	0.41
1:B:555:LEU:HD23	1:B:555:LEU:HA	1.93	0.41
1:B:1033:VAL:HG22	1:B:1034:PRO:HD2	2.02	0.41
1:B:1304:LEU:HD23	1:B:1304:LEU:HA	1.88	0.41
1:B:2065:THR:HG23	1:B:2068:ARG:HH21	1.86	0.41
1:B:2429:LEU:HD21	1:B:2483:PHE:CE1	2.56	0.41
1:B:2619:LYS:O	1:B:2626:GLY:HA2	2.21	0.41
1:B:2679:ASP:HB2	1:B:2920:ARG:NH1	2.36	0.41
1:B:2895:PHE:O	1:B:2898:ILE:HG22	2.19	0.41
1:B:3197:LEU:HA	1:B:3198:PRO:HD3	1.77	0.41
1:B:3587:TRP:HA	1:B:3590:LEU:HD12	2.02	0.41
1:B:4806:CYS:HA	1:B:4812:CYS:HB2	2.03	0.41
1:C:23:GLN:HG3	1:C:34:LYS:HD2	2.02	0.41
1:C:370:LEU:CD2	1:C:395:HIS:HB3	2.51	0.41
1:C:500:GLU:HB3	1:C:504:ARG:NH1	2.35	0.41
1:C:807:ARG:HB2	1:C:807:ARG:CZ	2.51	0.41
1:C:916:PRO:O	1:C:919:VAL:HG22	2.21	0.41
1:C:931:TYR:HA	1:C:934:GLN:OE1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1074:ARG:O	1:C:1077:VAL:HG23	2.21	0.41
1:C:1784:LEU:HD22	1:C:1833:ILE:HG13	2.03	0.41
1:C:1889:PRO:HB2	1:C:1890:LYS:H	1.64	0.41
1:C:2150:MET:O	1:C:2156:TYR:OH	2.29	0.41
1:C:2202:TYR:CE2	1:C:2206:ILE:HD11	2.55	0.41
1:C:2222:LEU:HB3	1:C:2264:LYS:HD2	2.03	0.41
1:C:2319:VAL:O	1:C:2323:LEU:HG	2.21	0.41
1:C:2435:VAL:HG11	1:C:2468:MET:HE3	2.03	0.41
1:C:2679:ASP:HB2	1:C:2920:ARG:NH1	2.36	0.41
1:C:2734:MET:HE1	1:C:2825:ALA:CB	2.51	0.41
1:C:3000:GLU:HA	1:C:3003:MET:HG2	2.02	0.41
1:C:3058:ARG:NH2	1:C:3126:VAL:HB	2.36	0.41
1:C:3127:GLN:HB3	1:C:3183:ILE:HD12	2.02	0.41
1:C:3238:ILE:O	1:C:3241:MET:SD	2.79	0.41
1:C:4027:THR:HG21	1:C:4084:VAL:HG11	2.03	0.41
1:D:23:GLN:HG3	1:D:34:LYS:HD2	2.02	0.41
1:D:75:VAL:C	1:D:79:GLN:NE2	2.79	0.41
1:D:889:ILE:HA	1:D:892:LEU:HB2	2.03	0.41
1:D:1552:VAL:HG12	1:D:1553:PHE:HD1	1.86	0.41
1:D:1649:GLU:HG2	1:D:1650:LEU:N	2.36	0.41
1:D:1784:LEU:HD22	1:D:1833:ILE:HG13	2.03	0.41
1:D:1890:LYS:HA	1:D:1890:LYS:HD2	1.82	0.41
1:D:2150:MET:O	1:D:2156:TYR:OH	2.29	0.41
1:D:2172:MET:O	1:D:2176:VAL:N	2.43	0.41
1:D:2277:CYS:HB3	1:D:2280:LEU:HB2	2.02	0.41
1:D:3072:MET:CE	1:D:3140:LEU:HG	2.51	0.41
1:D:3192:ARG:HD2	1:D:3197:LEU:HD13	2.03	0.41
1:D:3250:TRP:CG	1:D:3273:MET:HE3	2.56	0.41
1:D:3291:ASP:C	1:D:3293:GLY:H	2.28	0.41
1:D:3587:TRP:HA	1:D:3590:LEU:HD12	2.02	0.41
1:D:4898:PHE:O	1:D:4904:GLY:HA3	2.20	0.41
3:J:20:PHE:HA	3:J:22:LYS:NZ	2.36	0.41
3:J:90:PHE:HZ	3:J:99:GLY:O	2.04	0.41
3:J:123:ASP:O	3:J:127:ARG:HG2	2.19	0.41
3:L:90:PHE:HZ	3:L:99:GLY:O	2.04	0.41
1:A:75:VAL:C	1:A:79:GLN:NE2	2.79	0.41
1:A:1124:PRO:HD3	1:A:1596:TRP:NE1	2.36	0.41
1:A:2573:LEU:HD12	1:A:2573:LEU:HA	1.93	0.41
1:A:3058:ARG:NH2	1:A:3126:VAL:HB	2.36	0.41
1:A:3160:ALA:HB1	1:A:3302:PHE:CZ	2.56	0.41
1:A:3796:LEU:HD22	1:A:3835:PHE:HZ	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:26:HIS:ND1	2:F:105:LEU:HD11	2.36	0.41
1:B:75:VAL:C	1:B:79:GLN:NE2	2.79	0.41
1:B:233:VAL:HG12	1:B:274:LEU:HD22	2.03	0.41
1:B:246:THR:OG1	1:B:247:VAL:N	2.53	0.41
1:B:606:ARG:NH2	1:B:1632:ILE:HG23	2.36	0.41
1:B:799:LYS:NZ	1:B:1620:GLN:OE1	2.54	0.41
1:B:1446:ILE:HG12	1:B:1542:ALA:HB2	2.02	0.41
1:B:1538:LYS:HD2	1:B:1636:ASN:ND2	2.36	0.41
1:B:2222:LEU:HB3	1:B:2264:LYS:HD2	2.03	0.41
1:B:2241:ASP:OD2	1:B:2297:ARG:NH2	2.54	0.41
1:B:3260:ARG:NH2	1:B:3264:CYS:SG	2.94	0.41
1:B:3972:MET:HA	1:B:3972:MET:HE2	2.02	0.41
1:B:4257:ARG:O	1:B:4261:LEU:HG	2.21	0.41
1:C:75:VAL:C	1:C:79:GLN:NE2	2.79	0.41
1:C:799:LYS:NZ	1:C:1620:GLN:OE1	2.54	0.41
1:C:891:GLU:O	1:C:894:VAL:HG22	2.21	0.41
1:C:2429:LEU:HD21	1:C:2483:PHE:CE1	2.56	0.41
1:C:2857:LYS:O	1:C:2861:GLU:OE1	2.39	0.41
1:D:253:GLY:O	1:D:257:ARG:HG2	2.20	0.41
1:D:1823:LYS:HB2	1:D:1905:GLN:HE22	1.86	0.41
1:D:1894:LEU:HD22	1:D:2065:THR:HG21	2.02	0.41
1:D:1940:GLN:OE1	1:D:3608:LEU:HB3	2.21	0.41
1:D:2065:THR:HG23	1:D:2068:ARG:HH21	1.86	0.41
1:D:2319:VAL:O	1:D:2323:LEU:HG	2.21	0.41
1:D:3968:LEU:O	1:D:3972:MET:HG2	2.21	0.41
1:D:3972:MET:HE2	1:D:3972:MET:HA	2.02	0.41
3:L:118:THR:O	3:L:122:VAL:HG23	2.20	0.41
1:A:623:VAL:HA	1:A:2131:SER:O	2.22	0.40
1:A:659:ILE:HD12	1:A:661:LEU:HD11	2.02	0.40
1:A:891:GLU:O	1:A:894:VAL:HG22	2.21	0.40
1:A:2466:ALA:HB2	1:A:2519:TYR:HD1	1.86	0.40
1:A:3102:LEU:HD13	1:A:3137:LEU:CD2	2.51	0.40
1:A:3926:GLY:O	1:A:3927:PRO:C	2.63	0.40
3:I:118:THR:O	3:I:122:VAL:HG23	2.20	0.40
1:B:370:LEU:CD2	1:B:395:HIS:HB3	2.51	0.40
1:B:459:LEU:HD23	1:B:459:LEU:HA	1.94	0.40
1:B:480:ARG:NH2	1:B:3678:GLU:OE2	2.55	0.40
1:B:1799:VAL:HG12	1:B:1890:LYS:NZ	2.36	0.40
1:B:2824:ARG:NH2	1:C:1503:ASN:HB2	2.35	0.40
1:B:3014:LEU:O	1:B:3018:ARG:HD3	2.22	0.40
1:B:3238:ILE:O	1:B:3241:MET:SD	2.79	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:233:VAL:HG12	1:C:274:LEU:HD22	2.03	0.40
1:C:1444:GLY:HA3	1:C:1487:MET:HG2	2.02	0.40
1:C:4270:LYS:HG3	1:C:4274:MET:CE	2.52	0.40
1:D:575:LEU:O	1:D:579:LEU:HG	2.21	0.40
1:D:982:ASP:OD1	1:D:982:ASP:N	2.52	0.40
1:D:1724:GLU:HG2	1:D:2165:LEU:HD23	2.03	0.40
1:D:2104:LYS:NZ	1:D:2164:ALA:O	2.47	0.40
1:D:2241:ASP:OD2	1:D:2297:ARG:NH2	2.54	0.40
1:D:2252:GLU:OE1	1:D:2252:GLU:N	2.39	0.40
1:D:2857:LYS:O	1:D:2861:GLU:OE1	2.39	0.40
1:D:3063:ASN:HA	1:D:3066:GLU:CD	2.45	0.40
1:D:3163:ALA:CA	1:D:3241:MET:O	2.70	0.40
1:D:3322:LEU:HB3	1:D:3323:MET:HE2	2.02	0.40
1:D:4256:MET:HE2	1:D:4256:MET:HB3	1.95	0.40
1:D:4269:LYS:HA	1:D:4269:LYS:HD3	1.90	0.40
1:D:4491:LEU:HD23	1:D:4491:LEU:HA	1.97	0.40
1:A:253:GLY:O	1:A:257:ARG:HG2	2.20	0.40
1:A:807:ARG:HB2	1:A:807:ARG:CZ	2.51	0.40
1:A:931:TYR:HA	1:A:934:GLN:OE1	2.21	0.40
1:A:1168:MET:HE3	1:A:1168:MET:HB3	1.88	0.40
1:A:2518:ARG:O	1:A:2522:THR:OG1	2.27	0.40
1:A:3034:HIS:O	1:A:3038:GLN:HG2	2.21	0.40
1:A:3968:LEU:O	1:A:3972:MET:HG2	2.21	0.40
1:A:4052:MET:HE2	1:A:4063:THR:HG23	2.03	0.40
1:A:4270:LYS:HG3	1:A:4274:MET:CE	2.52	0.40
1:A:4854:VAL:HA	1:A:4858:LEU:HD12	2.04	0.40
1:B:291:TRP:CD1	1:B:353:GLU:HB3	2.57	0.40
1:B:874:LEU:HD23	1:B:879:GLU:HB3	2.01	0.40
1:B:2077:ASP:OD2	1:B:2080:LEU:N	2.52	0.40
1:B:2556:SER:HB3	1:B:2569:ILE:HG21	2.03	0.40
1:B:3156:GLY:HA2	1:B:3237:VAL:HG13	2.03	0.40
1:B:3163:ALA:CA	1:B:3241:MET:O	2.70	0.40
1:B:4267:GLN:O	1:B:4271:VAL:HG23	2.21	0.40
1:B:4270:LYS:HG3	1:B:4274:MET:HE2	2.02	0.40
1:C:174:LYS:HE2	1:C:174:LYS:HB2	1.96	0.40
1:C:318:ASP:O	1:C:322:ALA:HB2	2.22	0.40
1:C:718:VAL:HG23	1:C:793:SER:HB3	2.02	0.40
1:C:992:GLN:O	1:C:996:VAL:HG23	2.22	0.40
1:C:1446:ILE:HG12	1:C:1542:ALA:HB2	2.02	0.40
1:C:1799:VAL:HG12	1:C:1890:LYS:NZ	2.36	0.40
1:C:2065:THR:HG23	1:C:2068:ARG:HH21	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2241:ASP:OD2	1:C:2297:ARG:NH2	2.54	0.40
1:C:3072:MET:HB3	1:C:3072:MET:HE2	1.71	0.40
1:C:3192:ARG:HD2	1:C:3197:LEU:HD13	2.03	0.40
1:C:3312:PRO:O	1:C:3315:LEU:HB2	2.22	0.40
1:C:4710:LEU:HD23	1:C:4710:LEU:HA	1.96	0.40
1:D:480:ARG:NH2	1:D:3678:GLU:OE2	2.55	0.40
1:D:1168:MET:HE3	1:D:1168:MET:HB3	1.88	0.40
3:J:30:THR:HG22	3:J:53:ILE:HD12	2.02	0.40
3:L:20:PHE:HA	3:L:22:LYS:NZ	2.36	0.40
1:A:480:ARG:NH2	1:A:3678:GLU:OE2	2.55	0.40
1:A:633:CYS:SG	1:A:637:LEU:HD12	2.62	0.40
1:A:1592:SER:OG	1:A:1594:VAL:HG12	2.22	0.40
1:A:1788:LYS:HD3	1:A:1833:ILE:HG22	2.04	0.40
1:A:3161:ALA:HA	1:A:3244:SER:OG	2.21	0.40
1:A:3163:ALA:CA	1:A:3241:MET:O	2.70	0.40
1:A:3592:SER:O	1:A:3596:LYS:HG2	2.22	0.40
1:A:4267:GLN:O	1:A:4271:VAL:HG23	2.21	0.40
3:I:15:GLU:O	3:I:19:LEU:HG	2.21	0.40
3:I:20:PHE:HA	3:I:22:LYS:NZ	2.36	0.40
1:B:75:VAL:HG12	1:B:79:GLN:NE2	2.20	0.40
1:B:1167:ASP:HB3	1:B:1172:THR:HG23	2.04	0.40
1:B:1894:LEU:HD22	1:B:2065:THR:HG21	2.02	0.40
1:B:4270:LYS:HG3	1:B:4274:MET:CE	2.52	0.40
1:C:234:LEU:HD13	1:C:405:LEU:HD22	2.02	0.40
1:C:606:ARG:NH2	1:C:1632:ILE:HG23	2.36	0.40
1:C:2434:GLY:O	1:C:2438:ILE:HG13	2.22	0.40
1:C:2466:ALA:HB2	1:C:2519:TYR:HD1	1.86	0.40
1:C:3014:LEU:O	1:C:3018:ARG:HD3	2.22	0.40
1:C:3156:GLY:HA2	1:C:3237:VAL:HG13	2.03	0.40
1:C:3592:SER:O	1:C:3596:LYS:HG2	2.22	0.40
1:D:799:LYS:NZ	1:D:1620:GLN:OE1	2.54	0.40
1:D:807:ARG:HB2	1:D:807:ARG:CZ	2.51	0.40
1:D:1444:GLY:HA3	1:D:1487:MET:HG2	2.02	0.40
1:D:1592:SER:OG	1:D:1594:VAL:HG12	2.22	0.40
1:D:1694:MET:HE2	1:D:1694:MET:HB2	1.91	0.40
1:D:2434:GLY:O	1:D:2438:ILE:HG13	2.22	0.40
1:D:2619:LYS:O	1:D:2626:GLY:HA2	2.21	0.40
1:D:2999:LYS:O	1:D:3002:GLU:HG3	2.21	0.40
1:D:3014:LEU:O	1:D:3018:ARG:HD3	2.22	0.40
1:D:3160:ALA:HB2	1:D:3240:PRO:HB2	2.02	0.40
1:D:3160:ALA:HB1	1:D:3302:PHE:CZ	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3177:LYS:O	1:D:3185:ASN:ND2	2.54	0.40
3:K:107:ARG:H	3:K:107:ARG:HG2	1.75	0.40
1:A:309:MET:HE3	1:A:315:LEU:CB	2.50	0.40
1:A:1145:TRP:CE2	1:A:1149:ASN:HB3	2.57	0.40
1:A:1167:ASP:HB3	1:A:1172:THR:HG23	2.04	0.40
1:A:1890:LYS:HA	1:A:1890:LYS:HD2	1.82	0.40
1:A:2658:GLU:OE1	1:A:2661:LEU:N	2.33	0.40
1:A:2734:MET:HG2	1:A:2823:PRO:HG2	2.02	0.40
1:A:2754:GLN:HG2	1:A:2756:LEU:HB2	2.04	0.40
1:A:3177:LYS:O	1:A:3185:ASN:ND2	2.54	0.40
1:A:3972:MET:HE2	1:A:3972:MET:HA	2.02	0.40
1:A:4268:MET:HE2	1:B:4694:LEU:HD13	2.03	0.40
1:A:4860:ALA:HB2	1:D:4863:GLN:HG2	2.04	0.40
2:G:26:HIS:ND1	2:G:105:LEU:HD11	2.36	0.40
1:B:374:TYR:CD1	1:B:376:SER:HB3	2.57	0.40
1:B:575:LEU:O	1:B:579:LEU:HG	2.21	0.40
1:B:608:HIS:HB2	1:B:1656:HIS:ND1	2.37	0.40
1:B:659:ILE:HD12	1:B:661:LEU:HD11	2.02	0.40
1:B:674:TYR:CE1	1:B:756:SER:HB2	2.56	0.40
1:B:1074:ARG:O	1:B:1077:VAL:HG23	2.21	0.40
1:B:1788:LYS:HD3	1:B:1833:ILE:HG22	2.04	0.40
1:B:2466:ALA:HB2	1:B:2519:TYR:HD1	1.86	0.40
1:B:2591:ARG:HA	1:B:2594:PHE:CE1	2.57	0.40
1:B:2734:MET:HE1	1:B:2825:ALA:CB	2.51	0.40
1:B:2857:LYS:O	1:B:2861:GLU:OE1	2.39	0.40
1:B:3583:LYS:HD2	3:J:128:GLU:HB3	2.03	0.40
1:B:4943:MET:O	1:B:4946:GLU:HG2	2.22	0.40
1:C:471:GLU:CD	1:C:473:GLU:H	2.30	0.40
1:C:674:TYR:HE1	1:C:756:SER:HB2	1.86	0.40
1:C:882:ARG:HG3	1:C:883:GLU:N	2.36	0.40
1:C:1016:TRP:HA	1:C:1027:ARG:HB3	2.04	0.40
1:C:3034:HIS:O	1:C:3038:GLN:HG2	2.21	0.40
1:C:3163:ALA:CA	1:C:3241:MET:O	2.70	0.40
1:C:3262:GLU:C	1:C:3263:MET:HE2	2.47	0.40
1:C:4084:VAL:O	1:C:4088:HIS:HB2	2.22	0.40
1:C:4690:LYS:HG2	1:C:4692:SER:H	1.87	0.40
1:D:233:VAL:HG12	1:D:274:LEU:HD22	2.03	0.40
1:D:291:TRP:CD1	1:D:353:GLU:HB3	2.57	0.40
1:D:992:GLN:O	1:D:996:VAL:HG23	2.22	0.40
1:D:1014:GLN:HB3	1:D:1027:ARG:HH21	1.84	0.40
1:D:1074:ARG:O	1:D:1077:VAL:HG23	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3000:GLU:HA	1:D:3003:MET:HG2	2.02	0.40
1:D:3112:ILE:HD11	1:D:3118:GLY:HA2	2.04	0.40
1:D:3312:PRO:O	1:D:3315:LEU:HB2	2.22	0.40
1:D:4249:ARG:O	1:D:4253:LEU:HG	2.22	0.40
3:J:108:HIS:CE1	3:J:112:ASN:HD21	2.40	0.40
3:J:126:ILE:O	3:J:130:ASP:HB2	2.22	0.40
3:L:108:HIS:CE1	3:L:112:ASN:HD21	2.40	0.40
1:A:233:VAL:HG12	1:A:274:LEU:HD22	2.03	0.40
1:A:238:HIS:CG	1:A:239:GLY:N	2.90	0.40
1:A:1979:PHE:CE1	1:A:1988:CYS:HB3	2.51	0.40
1:A:2793:ARG:HD3	1:A:2794:GLU:N	2.36	0.40
1:A:3924:ILE:HG21	1:A:3935:LEU:HD22	2.04	0.40
1:A:4249:ARG:O	1:A:4253:LEU:HG	2.22	0.40
1:B:1299:ILE:HD13	1:B:1457:PHE:HB3	2.04	0.40
1:B:2435:VAL:HG11	1:B:2468:MET:HE3	2.03	0.40
1:B:2447:LYS:HD3	1:B:2447:LYS:HA	1.91	0.40
1:B:2634:SER:O	1:B:2635:GLU:HB3	2.22	0.40
1:B:2734:MET:HG2	1:B:2823:PRO:HG2	2.02	0.40
1:B:3034:HIS:O	1:B:3038:GLN:HG2	2.21	0.40
1:B:3127:GLN:HB3	1:B:3183:ILE:HD12	2.02	0.40
1:B:3968:LEU:O	1:B:3972:MET:HG2	2.21	0.40
1:C:1167:ASP:HB3	1:C:1172:THR:HG23	2.03	0.40
1:C:2170:THR:O	1:C:2174:VAL:HG13	2.22	0.40
1:C:2556:SER:HB3	1:C:2569:ILE:HG21	2.03	0.40
1:C:2581:ARG:HG3	1:C:2584:MET:HG2	2.04	0.40
1:C:3596:LYS:HE2	3:K:19:LEU:HB3	2.03	0.40
1:C:3833:ASP:OD1	1:C:3908:LYS:HB3	2.22	0.40
1:D:318:ASP:O	1:D:322:ALA:HB2	2.22	0.40
1:D:623:VAL:HA	1:D:2131:SER:O	2.22	0.40
1:D:674:TYR:CE1	1:D:756:SER:HB2	2.56	0.40
1:D:1033:VAL:HG22	1:D:1034:PRO:HD2	2.03	0.40
1:D:2581:ARG:HG3	1:D:2584:MET:HG2	2.04	0.40
1:D:2706:VAL:HG12	1:D:2847:ASN:HD21	1.87	0.40
1:D:3163:ALA:C	1:D:3245:TYR:HB3	2.46	0.40
1:D:3965:ILE:HD13	1:D:3965:ILE:HA	1.94	0.40
1:D:4270:LYS:HG3	1:D:4274:MET:CE	2.52	0.40
3:J:16:ALA:HA	3:J:19:LEU:HD12	2.03	0.40
3:K:108:HIS:CE1	3:K:112:ASN:HD21	2.40	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	4206/4967 (85%)	4072 (97%)	130 (3%)	4 (0%)	48	77
1	B	4206/4967 (85%)	4072 (97%)	130 (3%)	4 (0%)	48	77
1	C	4206/4967 (85%)	4074 (97%)	128 (3%)	4 (0%)	48	77
1	D	4206/4967 (85%)	4073 (97%)	129 (3%)	4 (0%)	48	77
2	E	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
2	F	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
2	G	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
2	H	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
3	I	141/149 (95%)	136 (96%)	5 (4%)	0	100	100
3	J	141/149 (95%)	136 (96%)	5 (4%)	0	100	100
3	K	141/149 (95%)	136 (96%)	5 (4%)	0	100	100
3	L	141/149 (95%)	136 (96%)	5 (4%)	0	100	100
All	All	17808/20896 (85%)	17243 (97%)	549 (3%)	16 (0%)	49	77

All (16) Ramachandran outliers are listed below:

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

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

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	3716/4358 (85%)	3667 (99%)	49 (1%)	61	75
1	B	3716/4358 (85%)	3667 (99%)	49 (1%)	61	75
1	C	3716/4358 (85%)	3667 (99%)	49 (1%)	61	75
1	D	3716/4358 (85%)	3667 (99%)	49 (1%)	61	75
2	E	88/89 (99%)	86 (98%)	2 (2%)	44	68
2	F	88/89 (99%)	86 (98%)	2 (2%)	44	68
2	G	88/89 (99%)	86 (98%)	2 (2%)	44	68
2	H	88/89 (99%)	86 (98%)	2 (2%)	44	68
3	I	123/127 (97%)	114 (93%)	9 (7%)	13	38
3	J	123/127 (97%)	114 (93%)	9 (7%)	13	38
3	K	123/127 (97%)	114 (93%)	9 (7%)	13	38
3	L	123/127 (97%)	114 (93%)	9 (7%)	13	38
All	All	15708/18296 (86%)	15468 (98%)	240 (2%)	55	73

All (240) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	81	MET
1	A	240	HIS
1	A	309	MET
1	A	494	MET
1	A	682	THR
1	A	807	ARG

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Mol	Chain	Res	Type
1	A	878	LEU
1	A	944	LEU
1	A	1044	LYS
1	A	1063	ASN
1	A	1162	VAL
1	A	1174	MET
1	A	1729	MET
1	A	1761	MET
1	A	1762	GLN
1	A	1953	MET
1	A	2192	MET
1	A	2214	MET
1	A	2456	MET
1	A	2689	MET
1	A	2712	THR
1	A	2736	LYS
1	A	2737	LEU
1	A	2772	ARG
1	A	2793	ARG
1	A	2835	ARG
1	A	2838[A]	HIS
1	A	2838[B]	HIS
1	A	2843	MET
1	A	2844	MET
1	A	3072	MET
1	A	3211	LEU
1	A	3241	MET
1	A	3287	ASN
1	A	3299	LEU
1	A	3313	GLN
1	A	3323	MET
1	A	3583	LYS
1	A	3584	LYS
1	A	3589	LYS
1	A	4067	LEU
1	A	4521	LYS
1	A	4672	MET
1	A	4728	MET
1	A	4753	LEU
1	A	4809	MET
1	A	4814	MET
1	A	4884	MET

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Mol	Chain	Res	Type
1	A	4963	GLU
2	E	19	LYS
2	E	58	LYS
2	F	19	LYS
2	F	58	LYS
2	G	19	LYS
2	G	58	LYS
2	H	19	LYS
2	H	58	LYS
3	I	22	LYS
3	I	77	MET
3	I	105	GLU
3	I	107	ARG
3	I	125	MET
3	I	126	ILE
3	I	128	GLU
3	I	130	ASP
3	I	145	MET
1	B	81	MET
1	B	240	HIS
1	B	309	MET
1	B	494	MET
1	B	682	THR
1	B	807	ARG
1	B	878	LEU
1	B	944	LEU
1	B	1044	LYS
1	B	1063	ASN
1	B	1162	VAL
1	B	1174	MET
1	B	1729	MET
1	B	1761	MET
1	B	1762	GLN
1	B	1953	MET
1	B	2192	MET
1	B	2214	MET
1	B	2456	MET
1	B	2689	MET
1	B	2712	THR
1	B	2736	LYS
1	B	2737	LEU
1	B	2772	ARG

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Mol	Chain	Res	Type
1	B	2793	ARG
1	B	2835	ARG
1	B	2838[A]	HIS
1	B	2838[B]	HIS
1	B	2843	MET
1	B	2844	MET
1	B	3072	MET
1	B	3211	LEU
1	B	3241	MET
1	B	3287	ASN
1	B	3299	LEU
1	B	3313	GLN
1	B	3323	MET
1	B	3583	LYS
1	B	3584	LYS
1	B	3589	LYS
1	B	4067	LEU
1	B	4521	LYS
1	B	4672	MET
1	B	4728	MET
1	B	4753	LEU
1	B	4809	MET
1	B	4814	MET
1	B	4884	MET
1	B	4963	GLU
1	C	81	MET
1	C	240	HIS
1	C	309	MET
1	C	494	MET
1	C	682	THR
1	C	807	ARG
1	C	878	LEU
1	C	944	LEU
1	C	1044	LYS
1	C	1063	ASN
1	C	1162	VAL
1	C	1174	MET
1	C	1729	MET
1	C	1761	MET
1	C	1762	GLN
1	C	1953	MET
1	C	2192	MET

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Mol	Chain	Res	Type
1	C	2214	MET
1	C	2456	MET
1	C	2689	MET
1	C	2712	THR
1	C	2736	LYS
1	C	2737	LEU
1	C	2772	ARG
1	C	2793	ARG
1	C	2835	ARG
1	C	2838[A]	HIS
1	C	2838[B]	HIS
1	C	2843	MET
1	C	2844	MET
1	C	3072	MET
1	C	3211	LEU
1	C	3241	MET
1	C	3287	ASN
1	C	3299	LEU
1	C	3313	GLN
1	C	3323	MET
1	C	3583	LYS
1	C	3584	LYS
1	C	3589	LYS
1	C	4067	LEU
1	C	4521	LYS
1	C	4672	MET
1	C	4728	MET
1	C	4753	LEU
1	C	4809	MET
1	C	4814	MET
1	C	4884	MET
1	C	4963	GLU
1	D	81	MET
1	D	240	HIS
1	D	309	MET
1	D	494	MET
1	D	682	THR
1	D	807	ARG
1	D	878	LEU
1	D	944	LEU
1	D	1044	LYS
1	D	1063	ASN

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Mol	Chain	Res	Type
1	D	1162	VAL
1	D	1174	MET
1	D	1729	MET
1	D	1761	MET
1	D	1762	GLN
1	D	1953	MET
1	D	2192	MET
1	D	2214	MET
1	D	2456	MET
1	D	2689	MET
1	D	2712	THR
1	D	2736	LYS
1	D	2737	LEU
1	D	2772	ARG
1	D	2793	ARG
1	D	2835	ARG
1	D	2838[A]	HIS
1	D	2838[B]	HIS
1	D	2843	MET
1	D	2844	MET
1	D	3072	MET
1	D	3211	LEU
1	D	3241	MET
1	D	3287	ASN
1	D	3299	LEU
1	D	3313	GLN
1	D	3323	MET
1	D	3583	LYS
1	D	3584	LYS
1	D	3589	LYS
1	D	4067	LEU
1	D	4521	LYS
1	D	4672	MET
1	D	4728	MET
1	D	4753	LEU
1	D	4809	MET
1	D	4814	MET
1	D	4884	MET
1	D	4963	GLU
3	J	22	LYS
3	J	77	MET
3	J	105	GLU

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

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (182) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	79	GLN
1	A	84	ASN
1	A	117	HIS
1	A	225	GLN
1	A	293	GLN
1	A	476	GLN
1	A	544	ASN
1	A	776	GLN
1	A	992	GLN
1	A	1022	GLN
1	A	1069	GLN
1	A	1071	HIS
1	A	1123	GLN
1	A	1126	GLN

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Mol	Chain	Res	Type
1	A	1147	GLN
1	A	1151	HIS
1	A	1577	ASN
1	A	1615	GLN
1	A	1722	ASN
1	A	1917	GLN
1	A	2118	ASN
1	A	2152	ASN
1	A	2309	ASN
1	A	2639	HIS
1	A	2847	ASN
1	A	2850	ASN
1	A	2927	GLN
1	A	2938	GLN
1	A	2978	HIS
1	A	3151	GLN
1	A	3233	HIS
1	A	3257	ASN
1	A	3318	HIS
1	A	3722	GLN
1	A	3767	ASN
1	A	3812	ASN
1	A	3850	HIS
1	A	3925	GLN
1	A	4097	ASN
1	A	4178	ASN
1	A	4514	ASN
1	A	4579	HIS
3	I	108	HIS
3	I	112	ASN
1	B	79	GLN
1	B	84	ASN
1	B	117	HIS
1	B	225	GLN
1	B	293	GLN
1	B	476	GLN
1	B	544	ASN
1	B	776	GLN
1	B	992	GLN
1	B	1063	ASN
1	B	1069	GLN
1	B	1071	HIS

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Mol	Chain	Res	Type
1	B	1123	GLN
1	B	1126	GLN
1	B	1147	GLN
1	B	1151	HIS
1	B	1577	ASN
1	B	1615	GLN
1	B	1722	ASN
1	B	1917	GLN
1	B	2118	ASN
1	B	2152	ASN
1	B	2309	ASN
1	B	2541	HIS
1	B	2639	HIS
1	B	2847	ASN
1	B	2850	ASN
1	B	2927	GLN
1	B	2938	GLN
1	B	2978	HIS
1	B	3151	GLN
1	B	3257	ASN
1	B	3318	HIS
1	B	3722	GLN
1	B	3812	ASN
1	B	3850	HIS
1	B	3925	GLN
1	B	4097	ASN
1	B	4178	ASN
1	B	4514	ASN
1	B	4579	HIS
1	C	79	GLN
1	C	84	ASN
1	C	163	HIS
1	C	225	GLN
1	C	293	GLN
1	C	476	GLN
1	C	621	HIS
1	C	776	GLN
1	C	992	GLN
1	C	1022	GLN
1	C	1063	ASN
1	C	1069	GLN
1	C	1071	HIS

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Mol	Chain	Res	Type
1	C	1123	GLN
1	C	1147	GLN
1	C	1615	GLN
1	C	1656	HIS
1	C	1722	ASN
1	C	1917	GLN
1	C	2118	ASN
1	C	2152	ASN
1	C	2224	ASN
1	C	2309	ASN
1	C	2541	HIS
1	C	2639	HIS
1	C	2830	ASN
1	C	2847	ASN
1	C	2850	ASN
1	C	2927	GLN
1	C	2938	GLN
1	C	2978	HIS
1	C	3151	GLN
1	C	3233	HIS
1	C	3257	ASN
1	C	3318	HIS
1	C	3588	HIS
1	C	3722	GLN
1	C	3767	ASN
1	C	3812	ASN
1	C	3850	HIS
1	C	3925	GLN
1	C	4097	ASN
1	C	4178	ASN
1	C	4498	ASN
1	C	4514	ASN
1	C	4579	HIS
1	D	79	GLN
1	D	84	ASN
1	D	163	HIS
1	D	225	GLN
1	D	293	GLN
1	D	476	GLN
1	D	544	ASN
1	D	776	GLN
1	D	992	GLN

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Mol	Chain	Res	Type
1	D	1021	GLN
1	D	1022	GLN
1	D	1063	ASN
1	D	1069	GLN
1	D	1071	HIS
1	D	1123	GLN
1	D	1126	GLN
1	D	1147	GLN
1	D	1501	ASN
1	D	1577	ASN
1	D	1615	GLN
1	D	1722	ASN
1	D	1917	GLN
1	D	2118	ASN
1	D	2152	ASN
1	D	2309	ASN
1	D	2639	HIS
1	D	2847	ASN
1	D	2850	ASN
1	D	2927	GLN
1	D	2938	GLN
1	D	2978	HIS
1	D	3151	GLN
1	D	3233	HIS
1	D	3257	ASN
1	D	3318	HIS
1	D	3722	GLN
1	D	3775	GLN
1	D	3812	ASN
1	D	3850	HIS
1	D	3925	GLN
1	D	4097	ASN
1	D	4178	ASN
1	D	4498	ASN
1	D	4514	ASN
1	D	4579	HIS
3	J	108	HIS
3	J	112	ASN
3	L	108	HIS
3	L	112	ASN
3	K	108	HIS
3	K	112	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

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

5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

5.6 Ligand geometry ⓘ

Of 32 ligands modelled in this entry, 24 are monoatomic - leaving 8 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
5	ATP	D	5002	-	32,33,33	0.26	0	48,52,52	0.30	0
5	ATP	A	5004	-	32,33,33	0.26	0	48,52,52	0.28	0
5	ATP	C	5002	-	32,33,33	0.26	0	48,52,52	0.30	0
5	ATP	B	5004	-	32,33,33	0.25	0	48,52,52	0.29	0
5	ATP	A	5002	-	32,33,33	0.26	0	48,52,52	0.30	0
5	ATP	B	5002	-	32,33,33	0.26	0	48,52,52	0.30	0
5	ATP	C	5004	-	32,33,33	0.26	0	48,52,52	0.29	0
5	ATP	D	5004	-	32,33,33	0.26	0	48,52,52	0.28	0

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. '2' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	ATP	D	5002	-	-	8/22/38/38	0/3/3/3
5	ATP	A	5004	-	-	11/22/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	ATP	C	5002	-	-	8/22/38/38	0/3/3/3
5	ATP	B	5004	-	-	11/22/38/38	0/3/3/3
5	ATP	A	5002	-	-	8/22/38/38	0/3/3/3
5	ATP	B	5002	-	-	8/22/38/38	0/3/3/3
5	ATP	C	5004	-	-	11/22/38/38	0/3/3/3
5	ATP	D	5004	-	-	11/22/38/38	0/3/3/3

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (76) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	A	5002	ATP	PB-O3A-PA-O5'
5	A	5004	ATP	PB-O3A-PA-O5'
5	B	5002	ATP	PB-O3A-PA-O5'
5	B	5004	ATP	PB-O3A-PA-O5'
5	C	5002	ATP	PB-O3A-PA-O5'
5	C	5004	ATP	PB-O3A-PA-O5'
5	D	5002	ATP	PB-O3A-PA-O5'
5	D	5004	ATP	PB-O3A-PA-O5'
5	A	5002	ATP	C3'-C4'-C5'-O5'
5	B	5002	ATP	C3'-C4'-C5'-O5'
5	C	5002	ATP	C3'-C4'-C5'-O5'
5	D	5002	ATP	C3'-C4'-C5'-O5'
5	A	5002	ATP	O4'-C4'-C5'-O5'
5	B	5002	ATP	O4'-C4'-C5'-O5'
5	C	5002	ATP	O4'-C4'-C5'-O5'
5	D	5002	ATP	O4'-C4'-C5'-O5'
5	A	5002	ATP	PG-O3B-PB-O3A
5	B	5002	ATP	PG-O3B-PB-O3A
5	C	5002	ATP	PG-O3B-PB-O3A
5	D	5002	ATP	PG-O3B-PB-O3A
5	A	5004	ATP	PB-O3B-PG-O3G
5	B	5004	ATP	PB-O3B-PG-O3G
5	C	5004	ATP	PB-O3B-PG-O3G
5	D	5004	ATP	PB-O3B-PG-O3G
5	A	5004	ATP	C2'-C1'-N9-C8
5	B	5004	ATP	C2'-C1'-N9-C8

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Mol	Chain	Res	Type	Atoms
5	C	5004	ATP	C2'-C1'-N9-C8
5	D	5004	ATP	C2'-C1'-N9-C8
5	A	5004	ATP	PG-O3B-PB-O2B
5	B	5004	ATP	PG-O3B-PB-O2B
5	C	5004	ATP	PG-O3B-PB-O2B
5	D	5004	ATP	PG-O3B-PB-O2B
5	A	5004	ATP	O4'-C1'-N9-C8
5	B	5004	ATP	O4'-C1'-N9-C8
5	C	5004	ATP	O4'-C1'-N9-C8
5	D	5004	ATP	O4'-C1'-N9-C8
5	A	5004	ATP	O4'-C1'-N9-C4
5	B	5004	ATP	O4'-C1'-N9-C4
5	C	5004	ATP	O4'-C1'-N9-C4
5	D	5004	ATP	O4'-C1'-N9-C4
5	A	5004	ATP	PB-O3B-PG-O2G
5	B	5004	ATP	PB-O3B-PG-O2G
5	C	5004	ATP	PB-O3B-PG-O2G
5	D	5004	ATP	PB-O3B-PG-O2G
5	A	5004	ATP	O4'-C4'-C5'-O5'
5	B	5004	ATP	O4'-C4'-C5'-O5'
5	C	5004	ATP	O4'-C4'-C5'-O5'
5	D	5004	ATP	O4'-C4'-C5'-O5'
5	A	5004	ATP	C2'-C1'-N9-C4
5	B	5004	ATP	C2'-C1'-N9-C4
5	C	5004	ATP	C2'-C1'-N9-C4
5	D	5004	ATP	C2'-C1'-N9-C4
5	A	5004	ATP	PB-O3B-PG-O1G
5	B	5004	ATP	PB-O3B-PG-O1G
5	C	5004	ATP	PB-O3B-PG-O1G
5	D	5004	ATP	PB-O3B-PG-O1G
5	A	5002	ATP	PG-O3B-PB-O1B
5	A	5002	ATP	PG-O3B-PB-O2B
5	A	5002	ATP	PB-O3A-PA-O1A
5	A	5002	ATP	PB-O3A-PA-O2A
5	A	5004	ATP	PG-O3B-PB-O1B
5	B	5002	ATP	PG-O3B-PB-O1B
5	B	5002	ATP	PG-O3B-PB-O2B
5	B	5002	ATP	PB-O3A-PA-O1A
5	B	5002	ATP	PB-O3A-PA-O2A
5	B	5004	ATP	PG-O3B-PB-O1B
5	C	5002	ATP	PG-O3B-PB-O1B
5	C	5002	ATP	PG-O3B-PB-O2B

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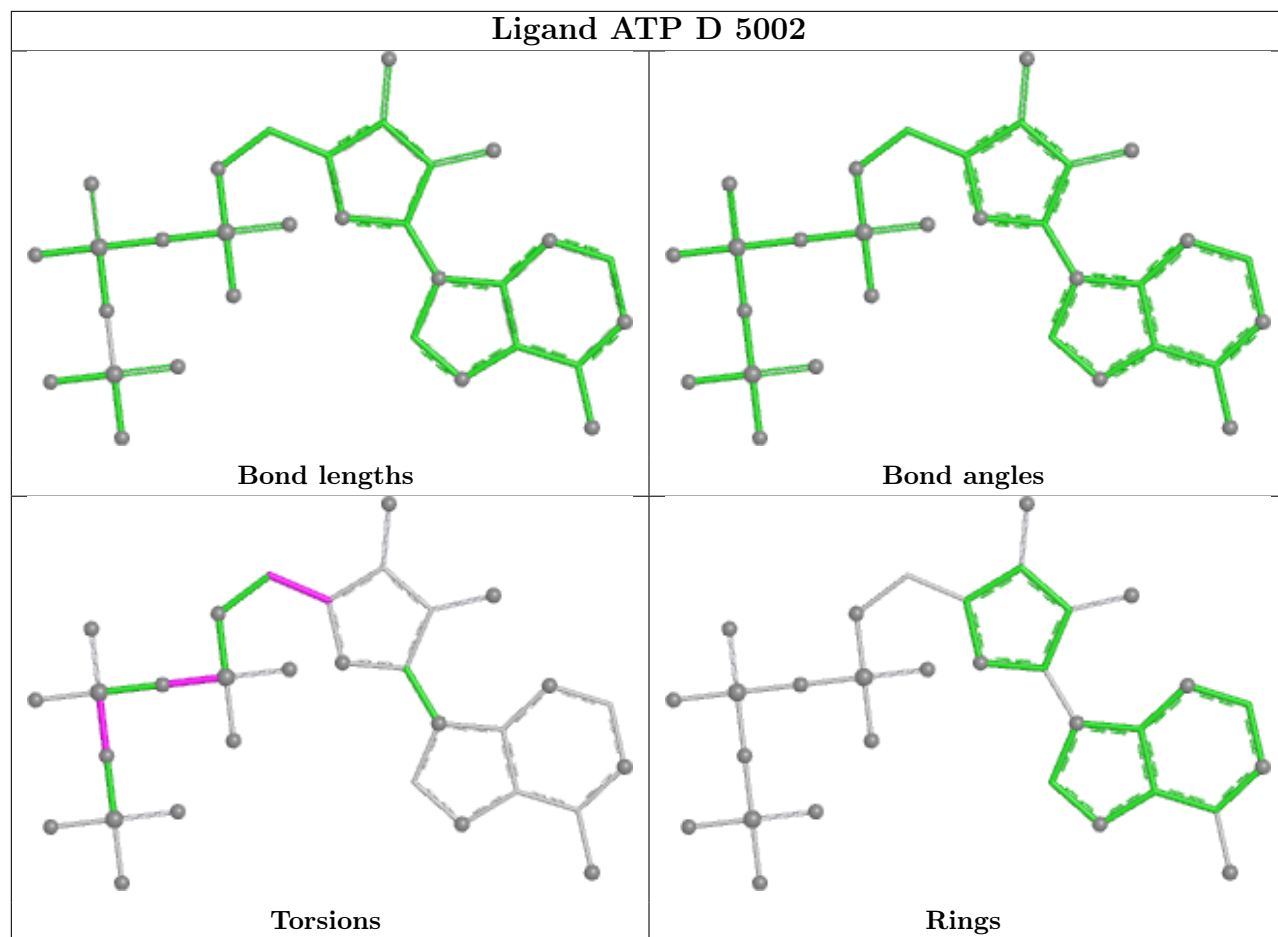
Continued from previous page...

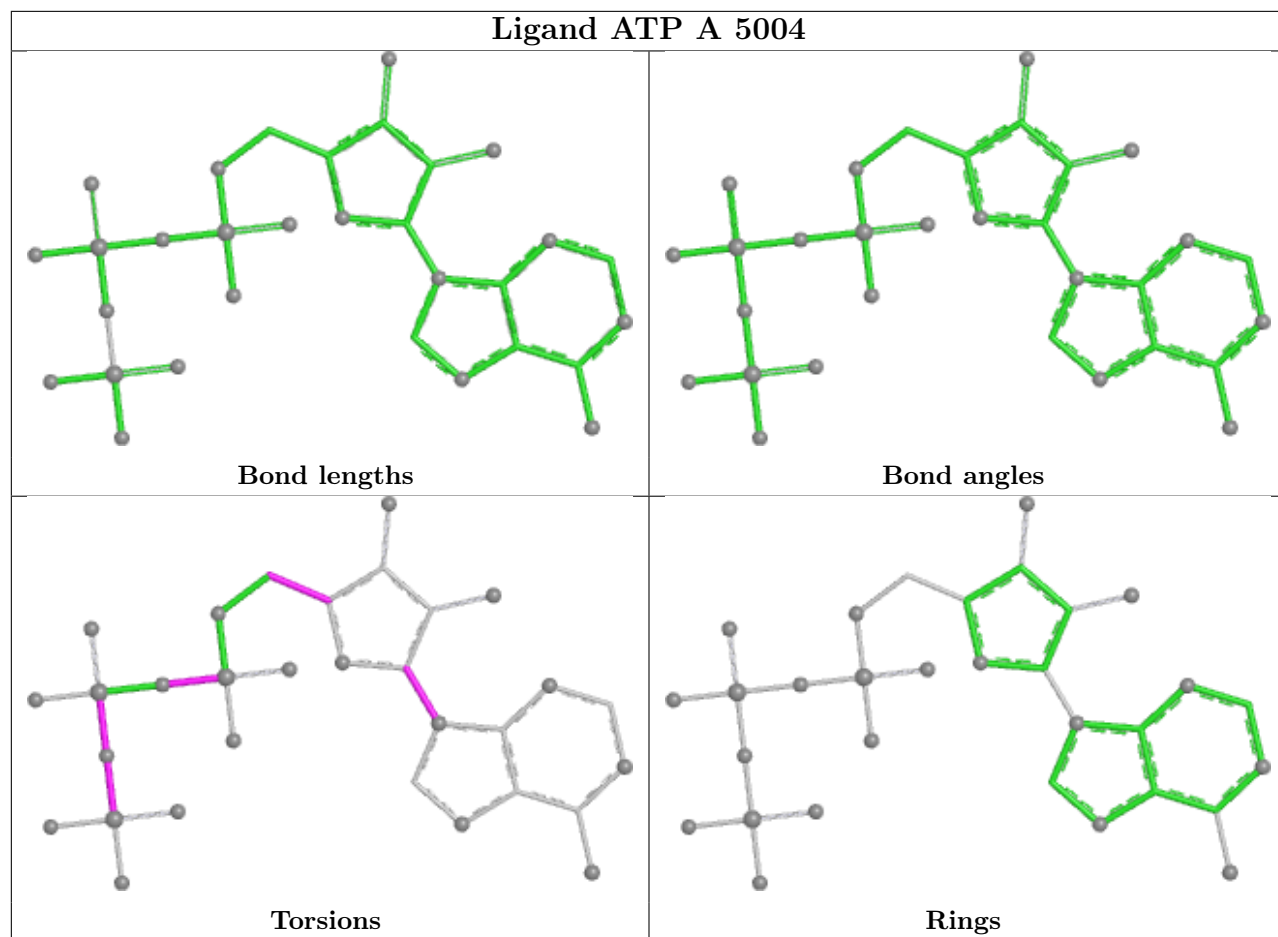
Mol	Chain	Res	Type	Atoms
5	C	5002	ATP	PB-O3A-PA-O1A
5	C	5002	ATP	PB-O3A-PA-O2A
5	C	5004	ATP	PG-O3B-PB-O1B
5	D	5002	ATP	PG-O3B-PB-O1B
5	D	5002	ATP	PG-O3B-PB-O2B
5	D	5002	ATP	PB-O3A-PA-O1A
5	D	5002	ATP	PB-O3A-PA-O2A
5	D	5004	ATP	PG-O3B-PB-O1B

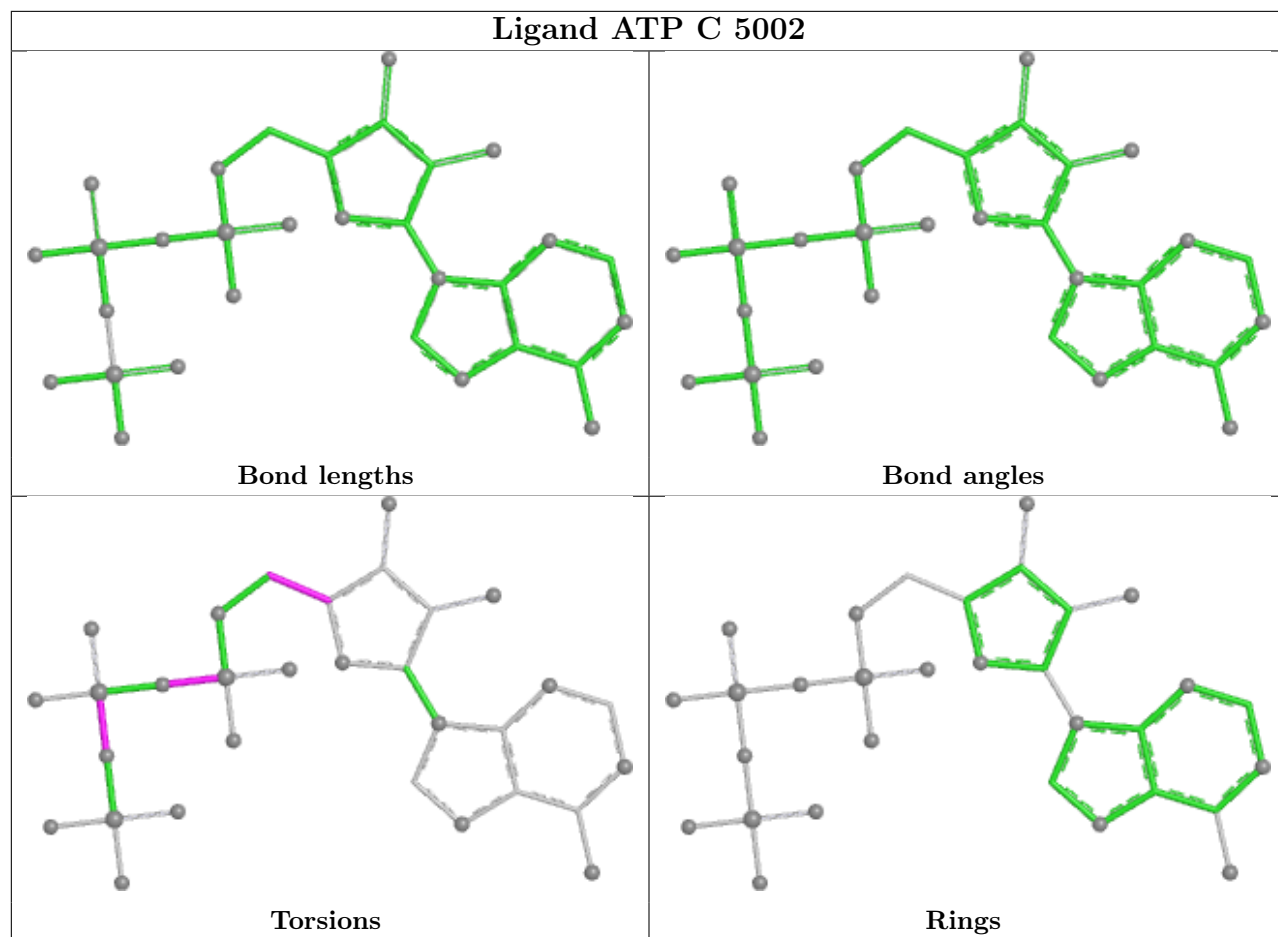
There are no ring outliers.

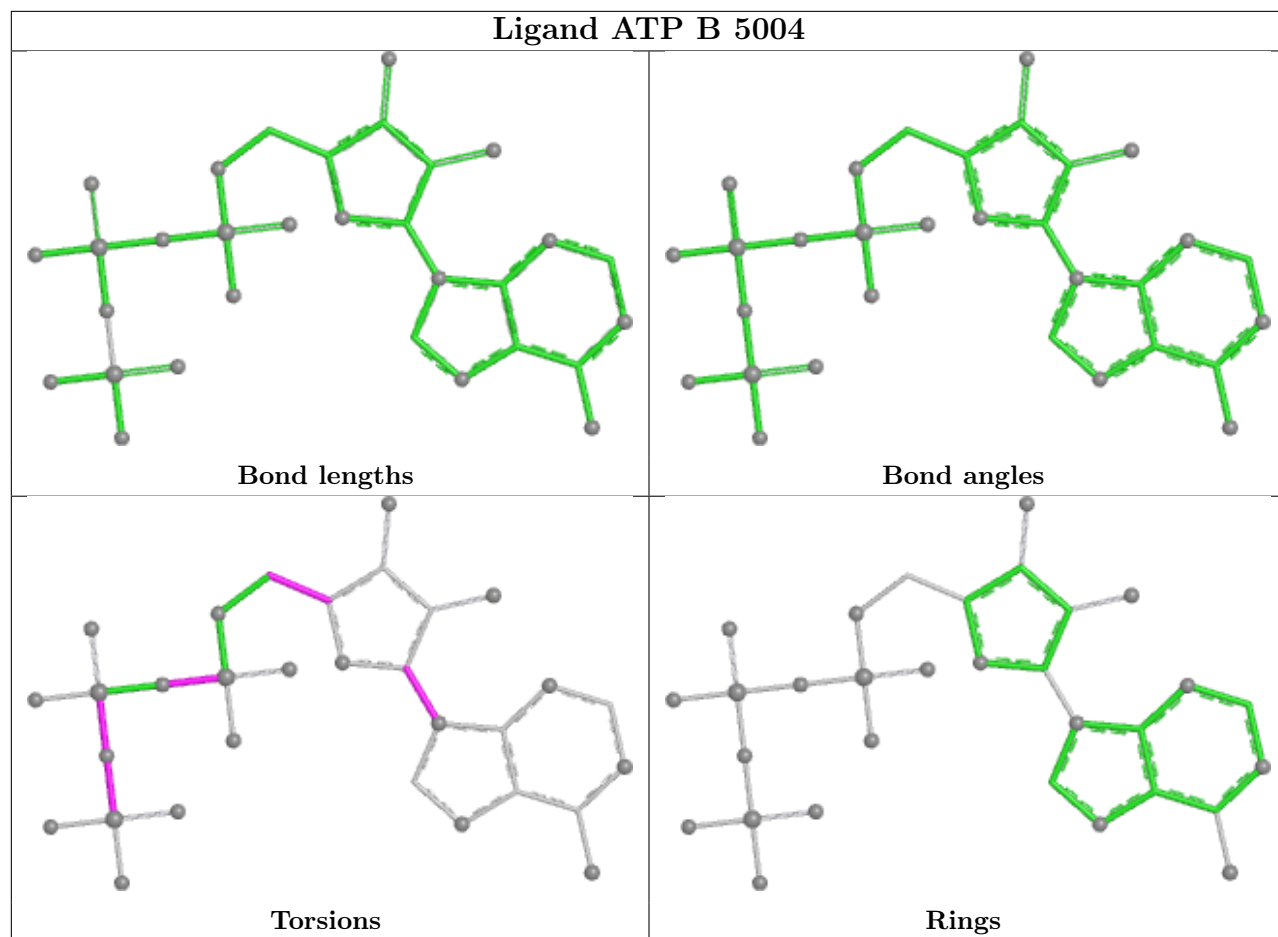
No monomer is involved in short contacts.

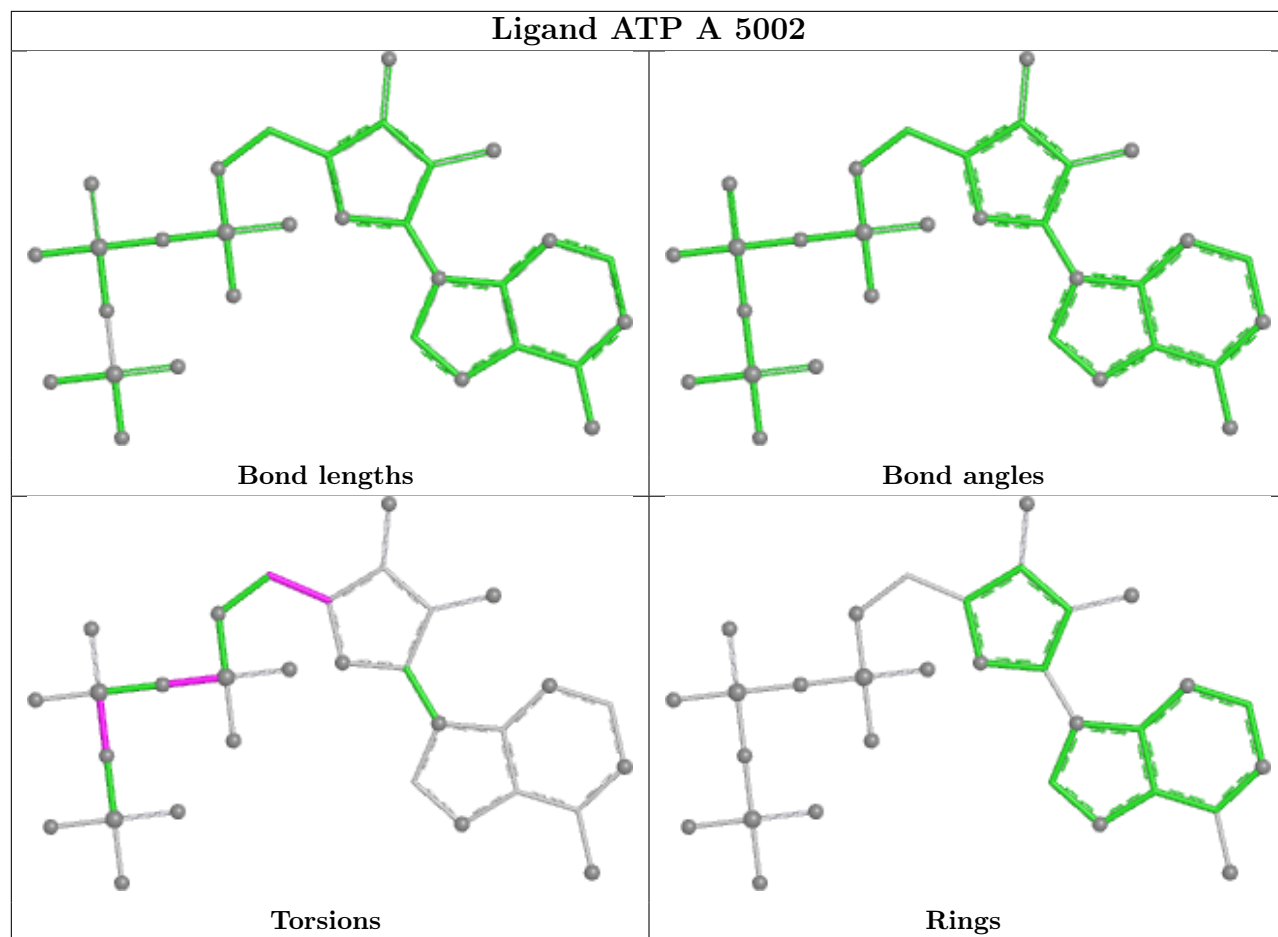
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

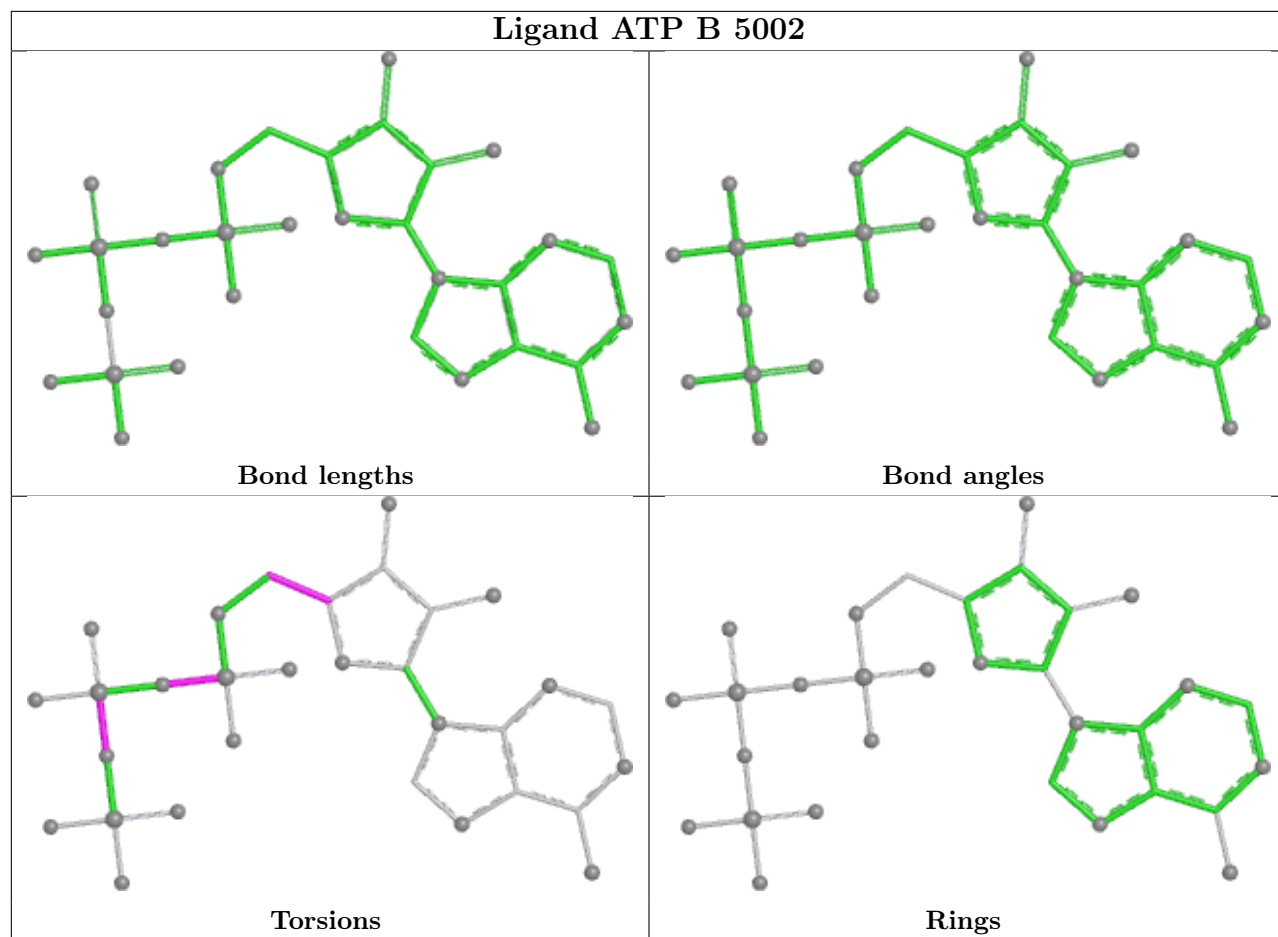


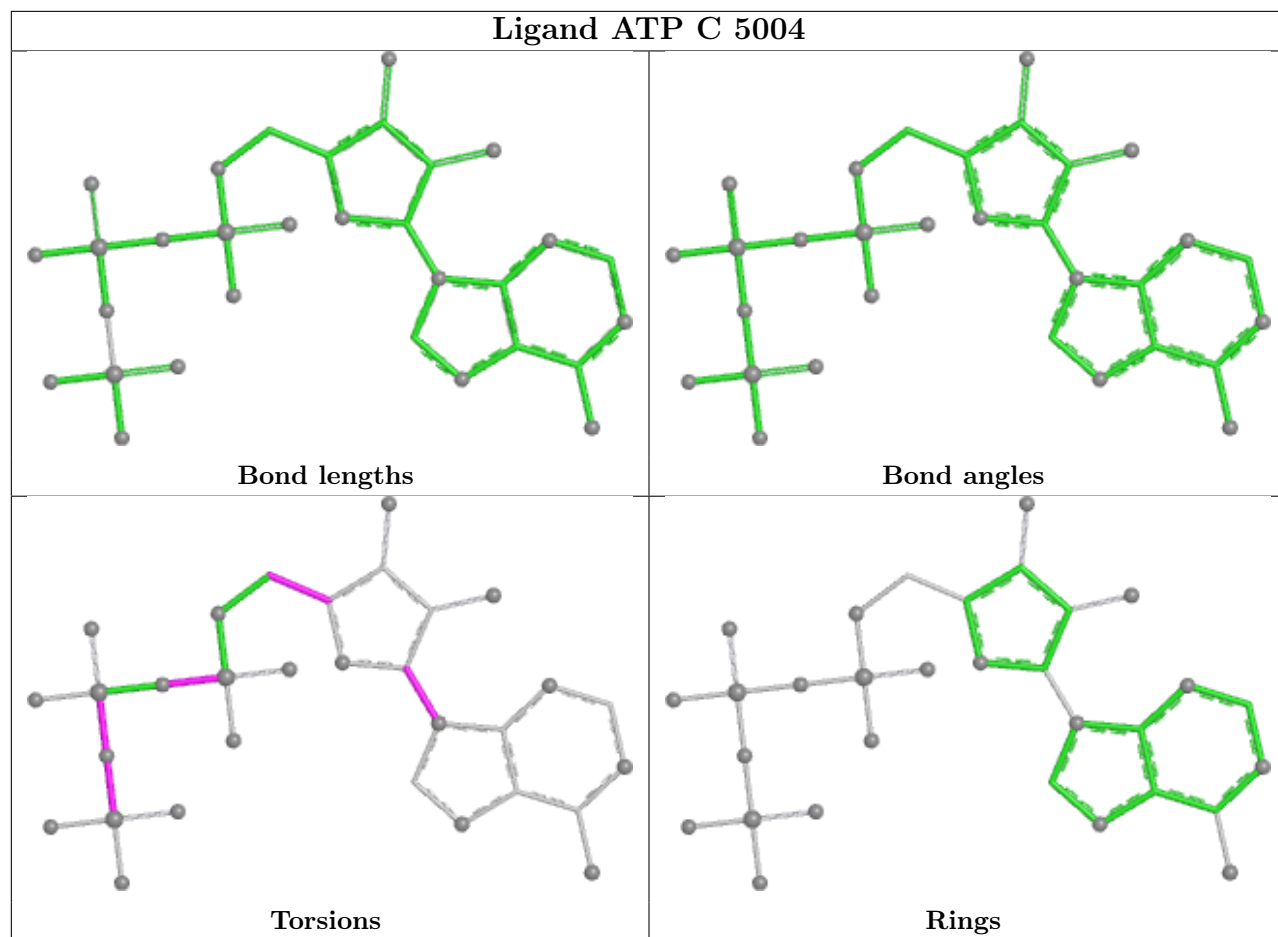


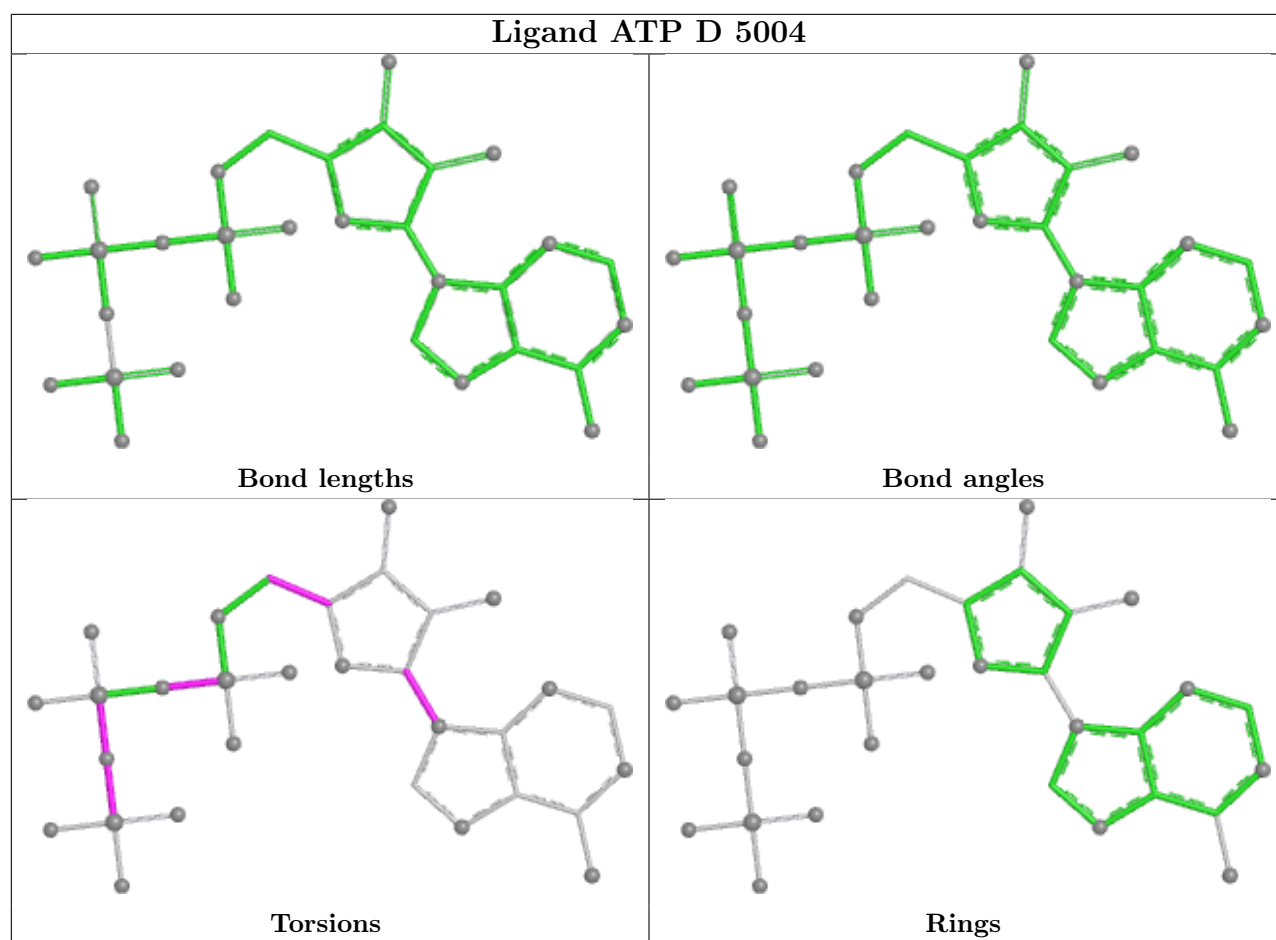












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

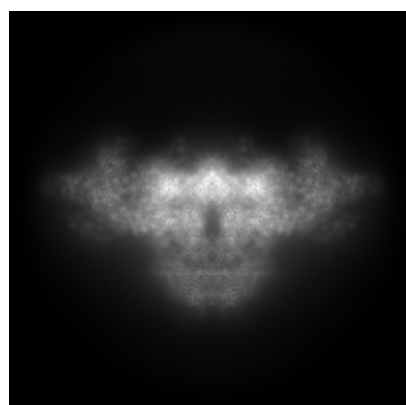
6 Map visualisation [i](#)

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

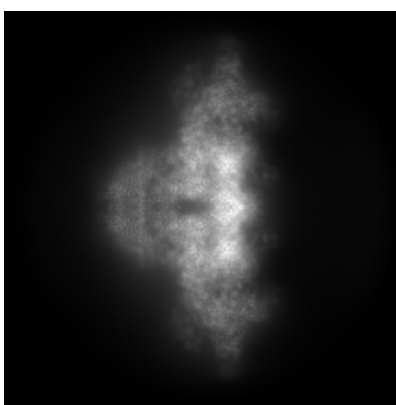
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

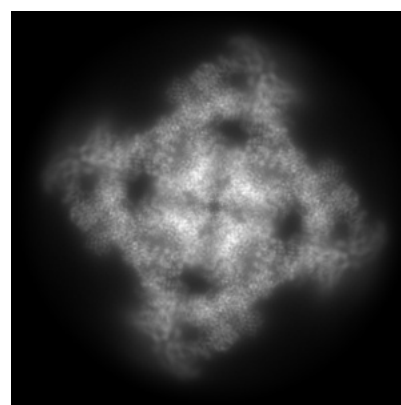
6.1.1 Primary map



X



Y



Z

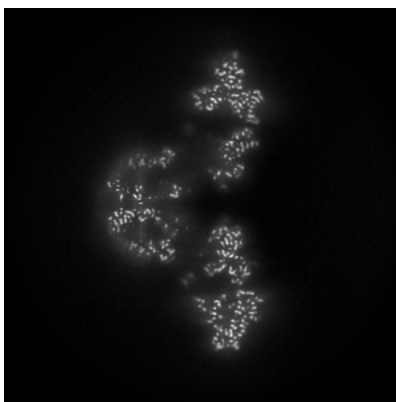
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

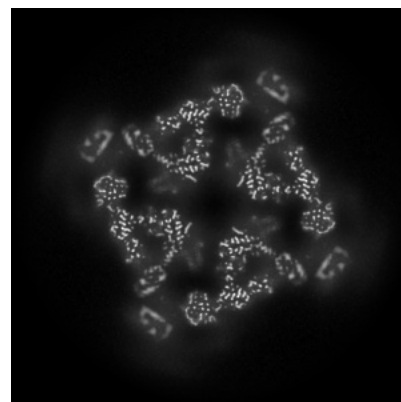
6.2.1 Primary map



X Index: 256



Y Index: 256



Z Index: 256

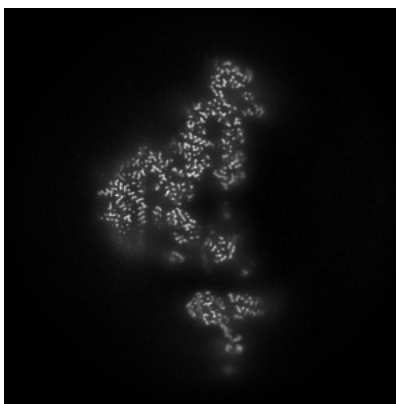
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

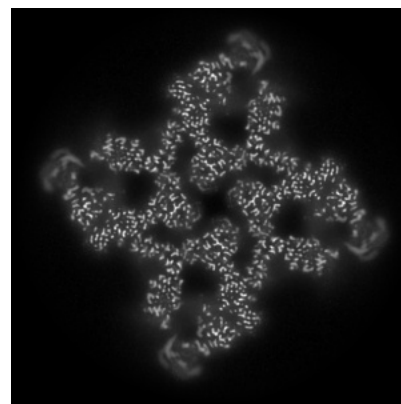
6.3.1 Primary map



X Index: 278



Y Index: 278

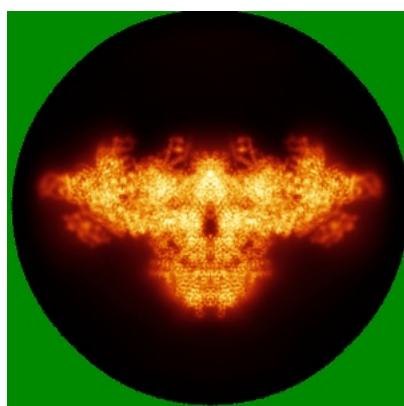


Z Index: 285

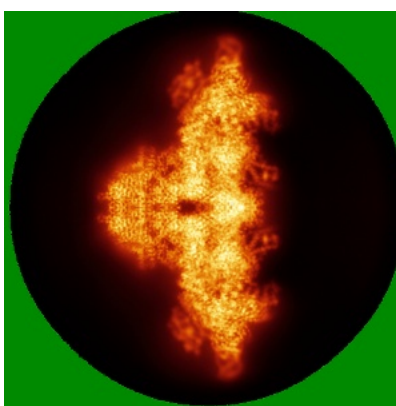
The images above show the largest variance slices of the map in three orthogonal directions.

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

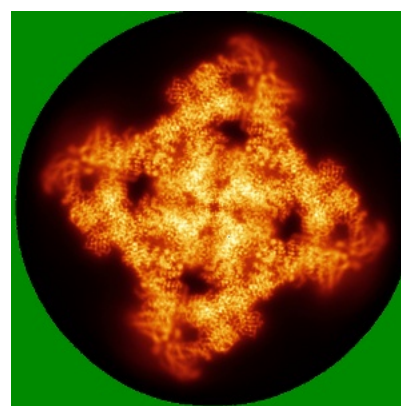
6.4.1 Primary map



X



Y

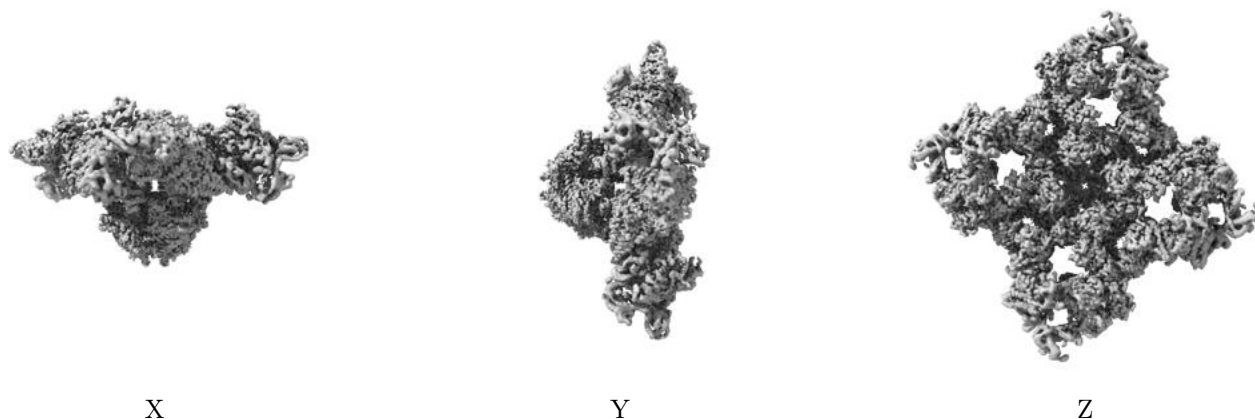


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.14. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

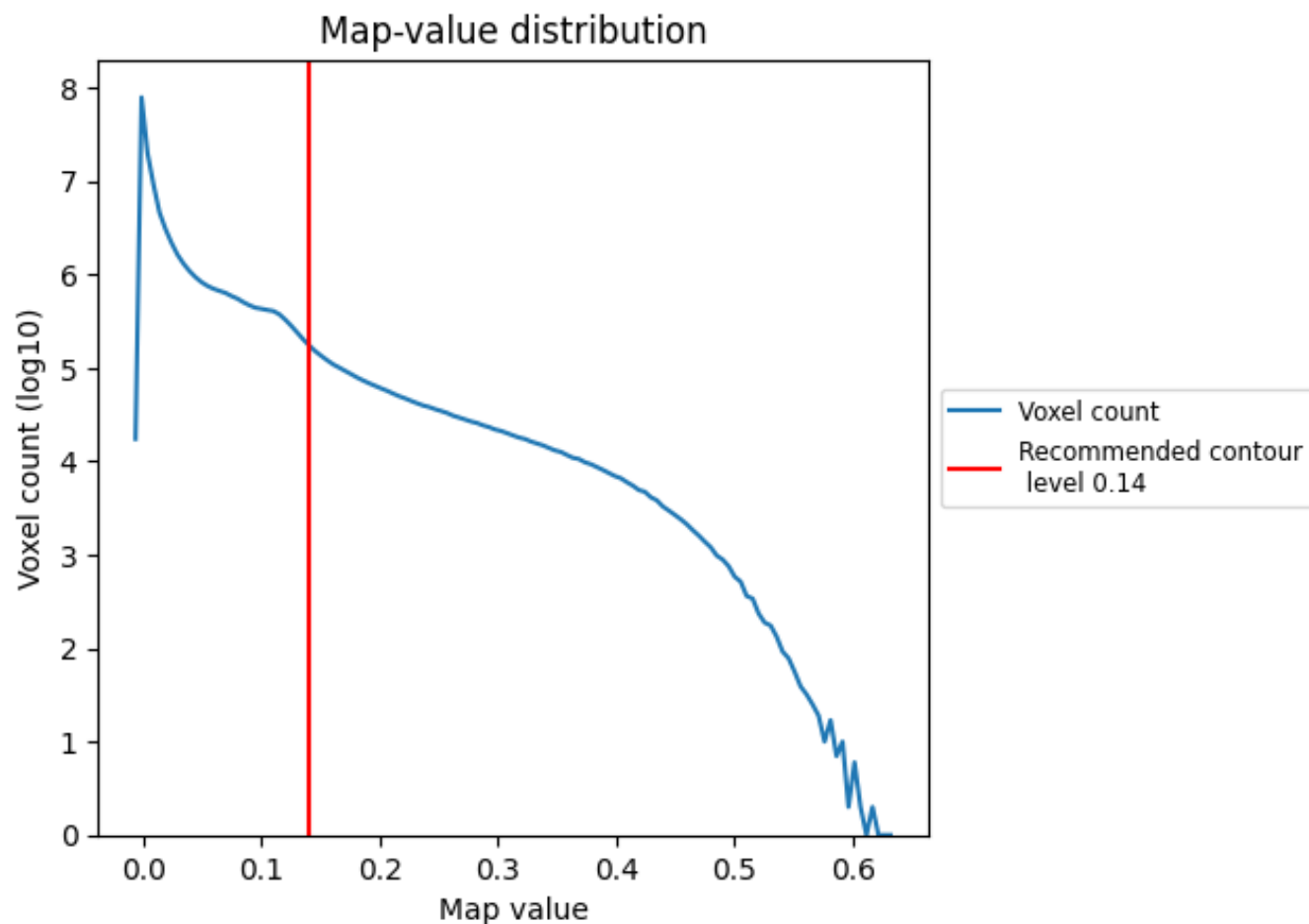
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

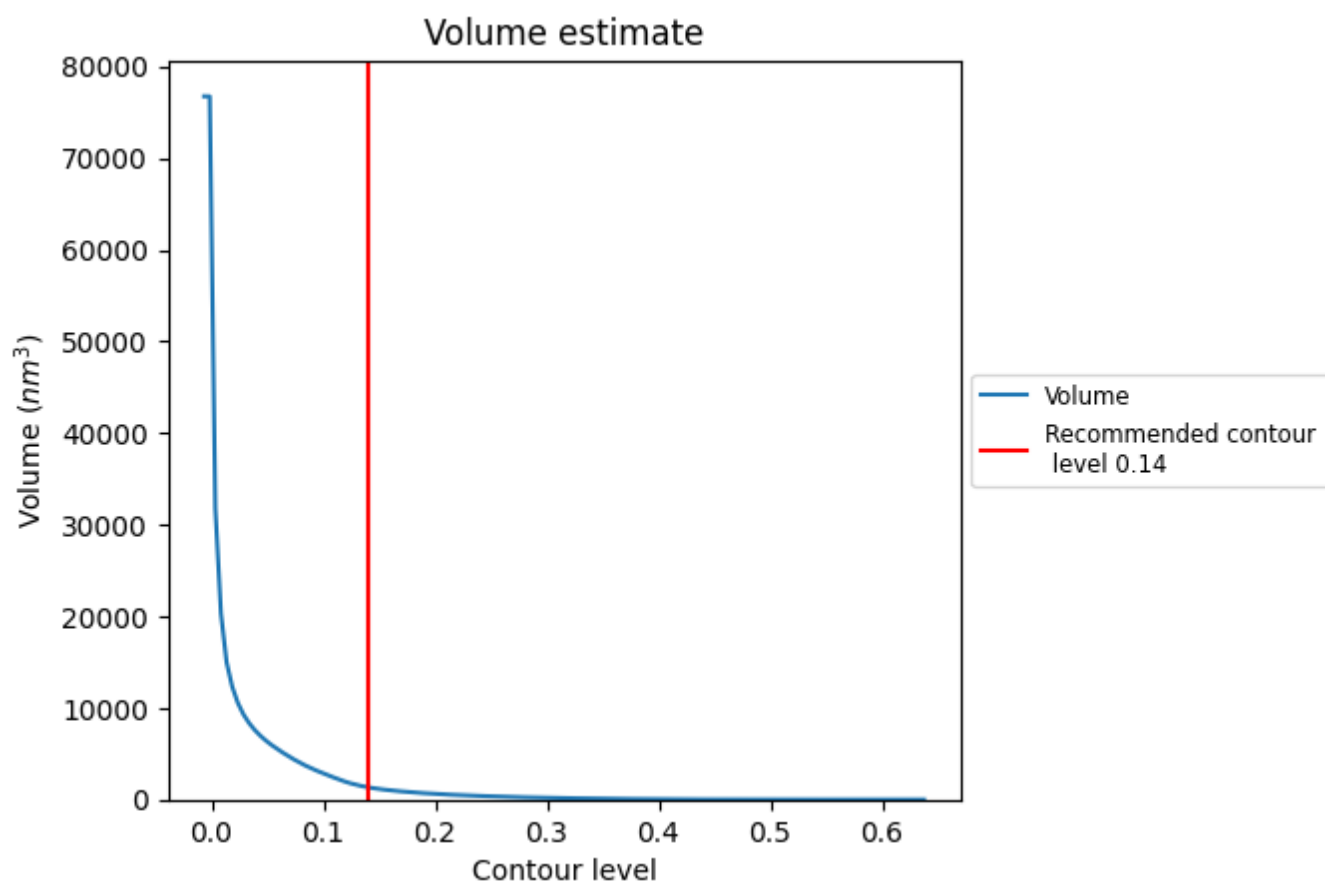
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

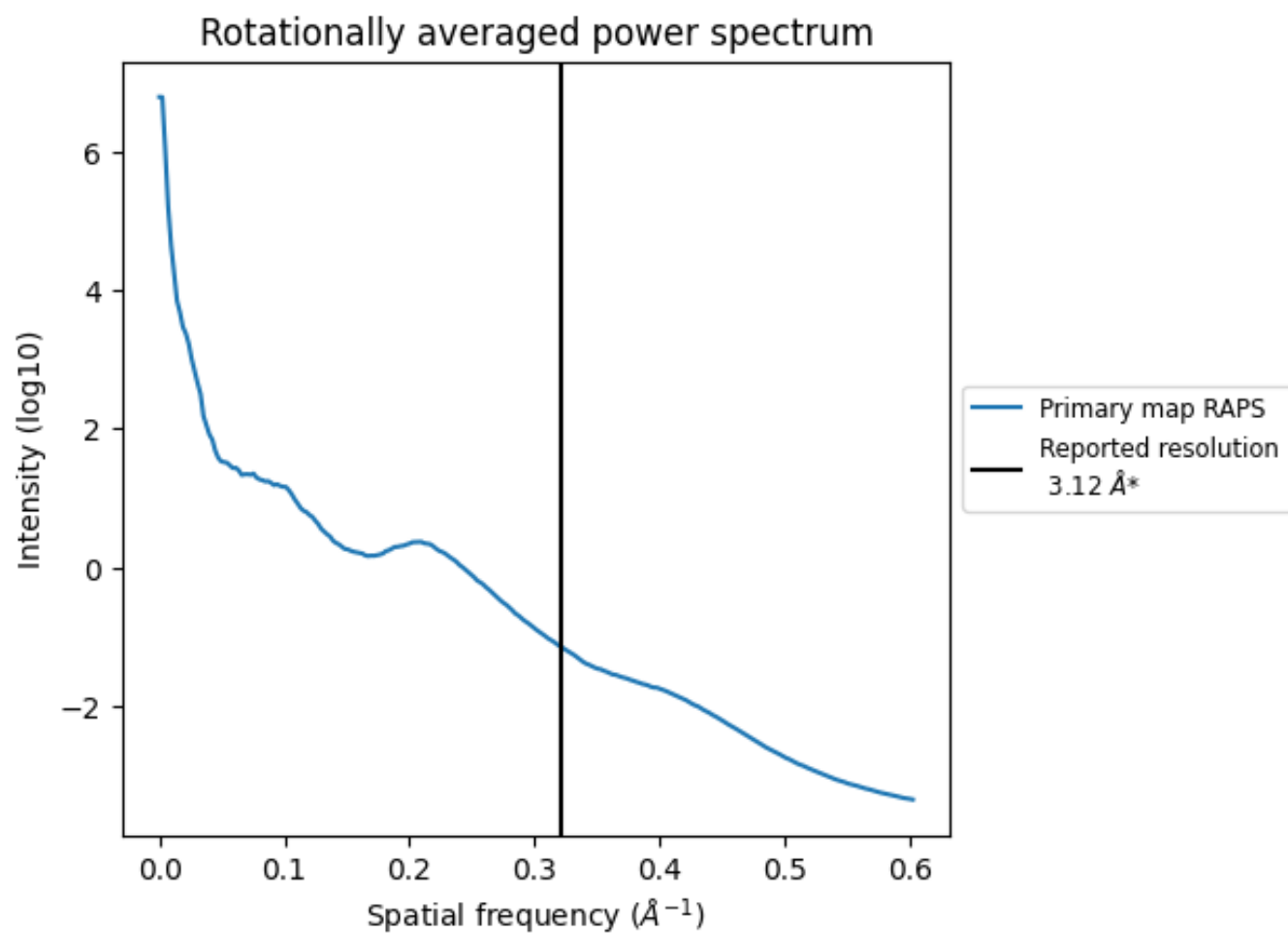
7.2 Volume estimate [i](#)



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

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

7.3 Rotationally averaged power spectrum ⓘ



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

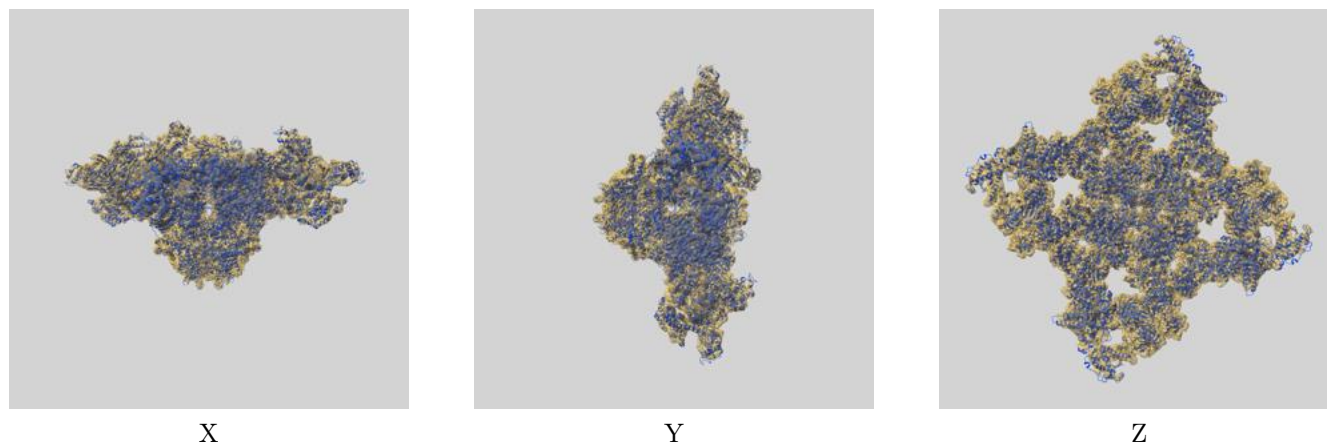
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

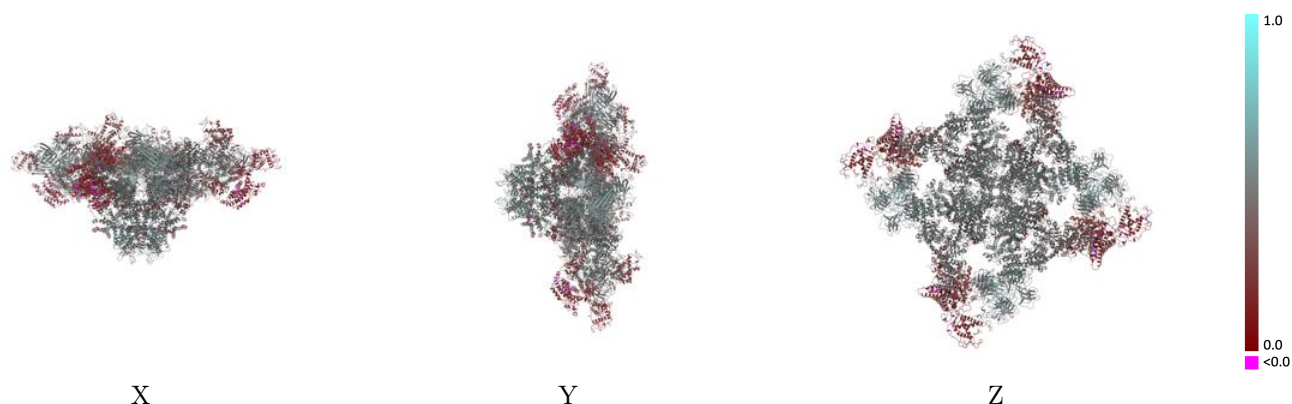
This section contains information regarding the fit between EMDB map EMD-42768 and PDB model 8UXL. Per-residue inclusion information can be found in section [3](#) on page [7](#).

9.1 Map-model overlay [i](#)



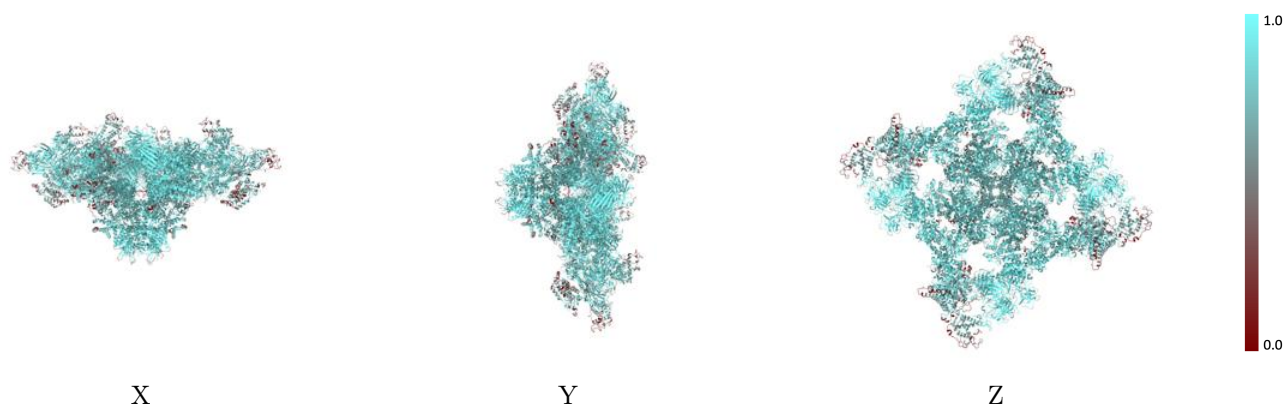
The images above show the 3D surface view of the map at the recommended contour level 0.14 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



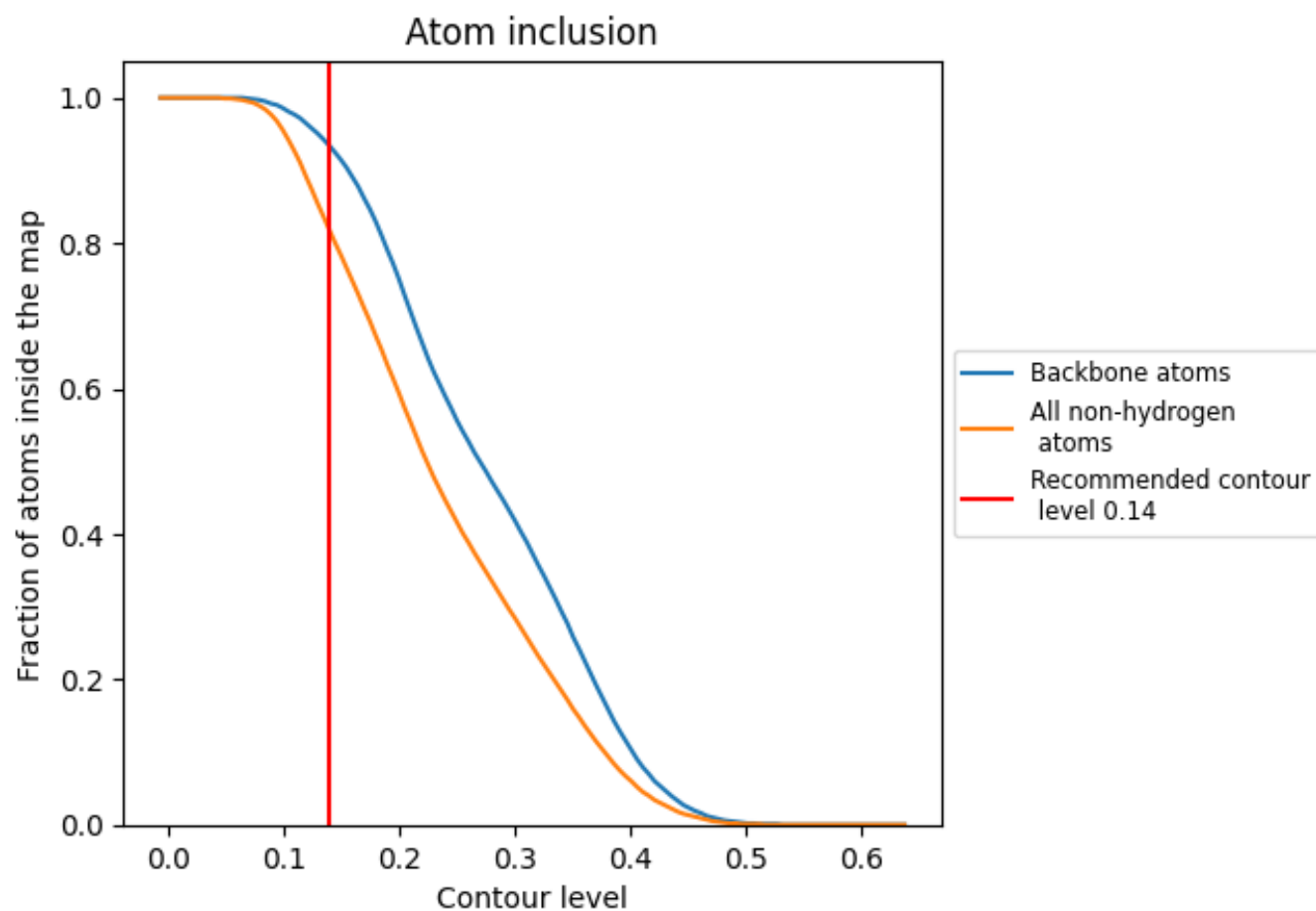
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



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

9.4 Atom inclusion [i](#)



At the recommended contour level, 93% of all backbone atoms, 82% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.14) and Q-score for the entire model and for each chain.

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

