

MUTE_ACT_Stomidazolone (a form)

ATOM	1	N	VAL A 106	-14.923	-7.079	-10.220	1.00	15.00	A	N
ATOM	2	CA	VAL A 106	-14.538	-5.671	-10.198	1.00	15.00	A	C
ATOM	3	C	VAL A 106	-13.276	-5.459	-9.362	1.00	15.00	A	C
ATOM	4	O	VAL A 106	-13.286	-5.653	-8.145	1.00	15.00	A	O
ATOM	5	CB	VAL A 106	-15.672	-4.779	-9.648	1.00	15.00	A	C
ATOM	6	CG1	VAL A 106	-15.324	-3.305	-9.809	1.00	15.00	A	C
ATOM	7	CG2	VAL A 106	-16.989	-5.095	-10.342	1.00	15.00	A	C
ATOM	8	HN	VAL A 106	-15.863	-7.320	-10.084	1.00	15.00	A	H
ATOM	9	N	GLY A 107	-12.193	-5.061	-10.022	1.00	15.00	A	N
ATOM	10	CA	GLY A 107	-10.941	-4.836	-9.325	1.00	15.00	A	C
ATOM	11	C	GLY A 107	-9.954	-4.021	-10.138	1.00	15.00	A	C
ATOM	12	O	GLY A 107	-10.042	-3.971	-11.364	1.00	15.00	A	O
ATOM	13	HN	GLY A 107	-12.246	-4.916	-10.990	1.00	15.00	A	H
ATOM	14	N	ALAA 108	-9.010	-3.385	-9.452	1.00	15.00	A	N
ATOM	15	CA	ALAA 108	-8.001	-2.568	-10.112	1.00	15.00	A	C
ATOM	16	C	ALAA 108	-6.599	-3.017	-9.727	1.00	15.00	A	C
ATOM	17	O	ALAA 108	-6.390	-3.568	-8.647	1.00	15.00	A	O
ATOM	18	CB	ALAA 108	-8.192	-1.105	-9.754	1.00	15.00	A	C
ATOM	19	HN	ALAA 108	-8.990	-3.470	-8.475	1.00	15.00	A	H
ATOM	20	N	CYS A 109	-5.639	-2.769	-10.613	1.00	15.00	A	N
ATOM	21	CA	CYS A 109	-4.255	-3.147	-10.363	1.00	15.00	A	C
ATOM	22	C	CYS A 109	-3.274	-2.081	-10.845	1.00	15.00	A	C
ATOM	23	O	CYS A 109	-3.421	-1.528	-11.934	1.00	15.00	A	O
ATOM	24	CB	CYS A 109	-3.931	-4.500	-11.008	1.00	15.00	A	C
ATOM	25	SG	CYS A 109	-4.271	-4.585	-12.783	1.00	15.00	A	S
ATOM	26	HN	CYS A 109	-5.868	-2.320	-11.454	1.00	15.00	A	H
ATOM	27	HG	CYS A 109	-5.577	-4.742	-12.941	1.00	15.00	A	H
ATOM	28	N	CYS A 110	-2.279	-1.794	-10.016	1.00	15.00	A	N
ATOM	29	CA	CYS A 110	-1.256	-0.811	-10.346	1.00	15.00	A	C
ATOM	30	C	CYS A 110	0.127	-1.432	-10.210	1.00	15.00	A	C
ATOM	31	O	CYS A 110	0.605	-1.672	-9.101	1.00	15.00	A	O
ATOM	32	CB	CYS A 110	-1.376	0.417	-9.441	1.00	15.00	A	C
ATOM	33	SG	CYS A 110	-0.156	1.710	-9.776	1.00	15.00	A	S
ATOM	34	HN	CYS A 110	-2.232	-2.256	-9.152	1.00	15.00	A	H
ATOM	35	HG	CYS A 110	1.013	1.124	-9.998	1.00	15.00	A	H
ATOM	36	N	ASNA 111	0.765	-1.685	-11.346	1.00	15.00	A	N
ATOM	37	CA	ASNA 111	2.088	-2.297	-11.364	1.00	15.00	A	C
ATOM	38	C	ASNA 111	3.197	-1.265	-11.548	1.00	15.00	A	C
ATOM	39	O	ASNA 111	3.348	-0.684	-12.623	1.00	15.00	A	O
ATOM	40	CB	ASNA 111	2.170	-3.353	-12.470	1.00	15.00	A	C
ATOM	41	CG	ASNA 111	1.239	-4.529	-12.237	1.00	15.00	A	C
ATOM	42	ND2	ASNA 111	0.748	-5.118	-13.323	1.00	15.00	A	N
ATOM	43	OD1	ASNA 111	0.968	-4.903	-11.099	1.00	15.00	A	O
ATOM	44	HN	ASNA 111	0.336	-1.451	-12.194	1.00	15.00	A	H
ATOM	45	HD21	ASNA 111	1.009	-4.766	-14.200	1.00	15.00	A	H

ATOM	46	HD22	ASN A 111	0.143	-5.881	-13.203	1.00	15.00	A	H
ATOM	47	N	SER A 112	3.969	-1.046	-10.490	1.00	15.00	A	N
ATOM	48	CA	SER A 112	5.080	-0.101	-10.528	1.00	15.00	A	C
ATOM	49	C	SER A 112	6.373	-0.805	-10.115	1.00	15.00	A	C
ATOM	50	O	SER A 112	6.326	-1.861	-9.482	1.00	15.00	A	O
ATOM	51	CB	SER A 112	4.801	1.086	-9.599	1.00	15.00	A	C
ATOM	52	OG	SER A 112	4.973	0.723	-8.243	1.00	15.00	A	O
ATOM	53	HN	SER A 112	3.785	-1.530	-9.657	1.00	15.00	A	H
ATOM	54	HG	SER A 112	5.513	-0.071	-8.190	1.00	15.00	A	H
ATOM	55	N	PRO A 113	7.544	-0.235	-10.470	1.00	15.00	A	N
ATOM	56	CA	PRO A 113	8.851	-0.820	-10.121	1.00	15.00	A	C
ATOM	57	C	PRO A 113	9.112	-0.829	-8.613	1.00	15.00	A	C
ATOM	58	O	PRO A 113	10.064	-1.452	-8.144	1.00	15.00	A	O
ATOM	59	CB	PRO A 113	9.861	0.100	-10.821	1.00	15.00	A	C
ATOM	60	CG	PRO A 113	9.066	0.851	-11.836	1.00	15.00	A	C
ATOM	61	CD	PRO A 113	7.694	1.004	-11.251	1.00	15.00	A	C
ATOM	62	N	HIS A 114	8.261	-0.136	-7.858	1.00	15.00	A	N
ATOM	63	CA	HIS A 114	8.410	-0.066	-6.410	1.00	15.00	A	C
ATOM	64	C	HIS A 114	7.488	-1.046	-5.689	1.00	15.00	A	C
ATOM	65	O	HIS A 114	7.911	-1.717	-4.747	1.00	15.00	A	O
ATOM	66	CB	HIS A 114	8.165	1.359	-5.905	1.00	15.00	A	C
ATOM	67	CG	HIS A 114	9.036	2.387	-6.562	1.00	15.00	A	C
ATOM	68	CD2	HIS A 114	8.718	3.312	-7.502	1.00	15.00	A	C
ATOM	69	ND1	HIS A 114	10.374	2.486	-6.264	1.00	15.00	A	N
ATOM	70	CE1	HIS A 114	10.843	3.459	-7.024	1.00	15.00	A	C
ATOM	71	NE2	HIS A 114	9.877	3.988	-7.788	1.00	15.00	A	N
ATOM	72	HN	HIS A 114	7.522	0.341	-8.287	1.00	15.00	A	H
ATOM	73	HE2	HIS A 114	9.977	4.723	-8.430	1.00	15.00	A	H
ATOM	74	N	ALAA 115	6.230	-1.128	-6.129	1.00	15.00	A	N
ATOM	75	CA	ALAA 115	5.263	-2.026	-5.497	1.00	15.00	A	C
ATOM	76	C	ALAA 115	4.101	-2.394	-6.416	1.00	15.00	A	C
ATOM	77	O	ALAA 115	3.745	-1.650	-7.331	1.00	15.00	A	O
ATOM	78	CB	ALAA 115	4.729	-1.410	-4.212	1.00	15.00	A	C
ATOM	79	HN	ALAA 115	5.949	-0.580	-6.891	1.00	15.00	A	H
ATOM	80	N	ASN A 116	3.510	-3.555	-6.148	1.00	15.00	A	N
ATOM	81	CA	ASN A 116	2.367	-4.052	-6.911	1.00	15.00	A	C
ATOM	82	C	ASN A 116	1.108	-4.001	-6.041	1.00	15.00	A	C
ATOM	83	O	ASN A 116	0.984	-4.747	-5.068	1.00	15.00	A	O
ATOM	84	CB	ASN A 116	2.642	-5.492	-7.371	1.00	15.00	A	C
ATOM	85	CG	ASN A 116	1.494	-6.139	-8.134	1.00	15.00	A	C
ATOM	86	ND2	ASN A 116	1.663	-7.415	-8.476	1.00	15.00	A	N
ATOM	87	OD1	ASN A 116	0.478	-5.507	-8.423	1.00	15.00	A	O
ATOM	88	HN	ASN A 116	3.857	-4.101	-5.410	1.00	15.00	A	H
ATOM	89	HD21	ASN A 116	2.502	-7.854	-8.224	1.00	15.00	A	H
ATOM	90	HD22	ASN A 116	0.940	-7.866	-8.964	1.00	15.00	A	H
ATOM	91	N	VAL A 117	0.180	-3.116	-6.393	1.00	15.00	A	N
ATOM	92	CA	VAL A 117	-1.057	-2.957	-5.632	1.00	15.00	A	C

ATOM	93	C	VAL A 117	-2.254	-3.556	-6.374	1.00	15.00	A	C
ATOM	94	O	VAL A 117	-2.472	-3.273	-7.548	1.00	15.00	A	O
ATOM	95	CB	VAL A 117	-1.339	-1.469	-5.322	1.00	15.00	A	C
ATOM	96	CG1	VAL A 117	-2.398	-1.333	-4.237	1.00	15.00	A	C
ATOM	97	CG2	VAL A 117	-0.062	-0.750	-4.912	1.00	15.00	A	C
ATOM	98	HN	VAL A 117	0.330	-2.558	-7.184	1.00	15.00	A	H
ATOM	99	N	GLU A 118	-3.029	-4.381	-5.671	1.00	15.00	A	N
ATOM	100	CA	GLU A 118	-4.206	-5.021	-6.253	1.00	15.00	A	C
ATOM	101	C	GLU A 118	-5.409	-4.937	-5.310	1.00	15.00	A	C
ATOM	102	O	GLU A 118	-5.379	-5.472	-4.203	1.00	15.00	A	O
ATOM	103	CB	GLU A 118	-3.903	-6.487	-6.577	1.00	15.00	A	C
ATOM	104	CG	GLU A 118	-5.053	-7.235	-7.233	1.00	15.00	A	C
ATOM	105	CD	GLU A 118	-4.813	-8.732	-7.312	1.00	15.00	A	C
ATOM	106	OE1	GLU A 118	-5.773	-9.469	-7.624	1.00	15.00	A	O
ATOM	107	OE2	GLU A 118	-3.670	-9.167	-7.062	1.00	15.00	A	O1-
ATOM	108	HN	GLU A 118	-2.799	-4.567	-4.736	1.00	15.00	A	H
ATOM	109	N	ALAA 119	-6.470	-4.271	-5.758	1.00	15.00	A	N
ATOM	110	CA	ALAA 119	-7.678	-4.123	-4.950	1.00	15.00	A	C
ATOM	111	C	ALAA 119	-8.887	-4.760	-5.627	1.00	15.00	A	C
ATOM	112	O	ALAA 119	-9.149	-4.517	-6.802	1.00	15.00	A	O
ATOM	113	CB	ALAA 119	-7.947	-2.654	-4.661	1.00	15.00	A	C
ATOM	114	HN	ALAA 119	-6.440	-3.873	-6.654	1.00	15.00	A	H
ATOM	115	N	LYS A 120	-9.622	-5.572	-4.874	1.00	15.00	A	N
ATOM	116	CA	LYS A 120	-10.811	-6.243	-5.395	1.00	15.00	A	C
ATOM	117	C	LYS A 120	-11.982	-6.117	-4.425	1.00	15.00	A	C
ATOM	118	O	LYS A 120	-11.785	-5.984	-3.221	1.00	15.00	A	O
ATOM	119	CB	LYS A 120	-10.520	-7.720	-5.678	1.00	15.00	A	C
ATOM	120	CG	LYS A 120	-9.861	-7.978	-7.024	1.00	15.00	A	C
ATOM	121	CD	LYS A 120	-9.473	-9.440	-7.185	1.00	15.00	A	C
ATOM	122	CE	LYS A 120	-8.912	-9.709	-8.572	1.00	15.00	A	C
ATOM	123	NZ	LYS A 120	-8.320	-11.073	-8.682	1.00	15.00	A	N1+
ATOM	124	HN	LYS A 120	-9.359	-5.725	-3.942	1.00	15.00	A	H
ATOM	125	HZ1	LYS A 120	-8.061	-11.271	-9.671	1.00	15.00	A	H
ATOM	126	HZ2	LYS A 120	-9.004	-11.789	-8.364	1.00	15.00	A	H
ATOM	127	HZ3	LYS A 120	-7.465	-11.140	-8.093	1.00	15.00	A	H
ATOM	128	N	ILE A 121	-13.200	-6.157	-4.957	1.00	15.00	A	N
ATOM	129	CA	ILE A 121	-14.395	-6.048	-4.129	1.00	15.00	A	C
ATOM	130	C	ILE A 121	-14.885	-7.422	-3.680	1.00	15.00	A	C
ATOM	131	O	ILE A 121	-15.226	-8.275	-4.502	1.00	15.00	A	O
ATOM	132	CB	ILE A 121	-15.538	-5.301	-4.852	1.00	15.00	A	C
ATOM	133	CG1	ILE A 121	-15.120	-3.861	-5.159	1.00	15.00	A	C
ATOM	134	CG2	ILE A 121	-16.813	-5.317	-4.014	1.00	15.00	A	C
ATOM	135	CD1	ILE A 121	-16.165	-3.060	-5.904	1.00	15.00	A	C
ATOM	136	HN	ILE A 121	-13.296	-6.262	-5.926	1.00	15.00	A	H
ATOM	137	N	SER A 122	-14.911	-7.628	-2.369	1.00	15.00	A	N
ATOM	138	CA	SER A 122	-15.367	-8.886	-1.797	1.00	15.00	A	C
ATOM	139	C	SER A 122	-16.526	-8.639	-0.835	1.00	15.00	A	C

ATOM	140	O	SER A 122	-16.325	-8.455	0.367	1.00	15.00	A	O
ATOM	141	CB	SER A 122	-14.217	-9.603	-1.084	1.00	15.00	A	C
ATOM	142	OG	SER A 122	-14.620	-10.875	-0.605	1.00	15.00	A	O
ATOM	143	HN	SER A 122	-14.616	-6.912	-1.770	1.00	15.00	A	H
ATOM	144	HG	SER A 122	-13.920	-11.514	-0.760	1.00	15.00	A	H
ATOM	145	N	GLY A 123	-17.739	-8.624	-1.382	1.00	15.00	A	N
ATOM	146	CA	GLY A 123	-18.923	-8.387	-0.574	1.00	15.00	A	C
ATOM	147	C	GLY A 123	-19.120	-6.912	-0.277	1.00	15.00	A	C
ATOM	148	O	GLY A 123	-19.396	-6.120	-1.179	1.00	15.00	A	O
ATOM	149	HN	GLY A 123	-17.831	-8.776	-2.345	1.00	15.00	A	H
ATOM	150	N	SER A 124	-18.971	-6.543	0.989	1.00	15.00	A	N
ATOM	151	CA	SER A 124	-19.114	-5.152	1.409	1.00	15.00	A	C
ATOM	152	C	SER A 124	-17.762	-4.590	1.833	1.00	15.00	A	C
ATOM	153	O	SER A 124	-17.671	-3.483	2.366	1.00	15.00	A	O
ATOM	154	CB	SER A 124	-20.112	-5.043	2.565	1.00	15.00	A	C
ATOM	155	OG	SER A 124	-21.406	-5.459	2.162	1.00	15.00	A	O
ATOM	156	HN	SER A 124	-18.753	-7.223	1.660	1.00	15.00	A	H
ATOM	157	HG	SER A 124	-22.053	-4.809	2.445	1.00	15.00	A	H
ATOM	158	N	ASN A 125	-16.713	-5.368	1.581	1.00	15.00	A	N
ATOM	159	CA	ASN A 125	-15.353	-4.982	1.937	1.00	15.00	A	C
ATOM	160	C	ASN A 125	-14.458	-4.959	0.699	1.00	15.00	A	C
ATOM	161	O	ASN A 125	-14.911	-5.247	-0.408	1.00	15.00	A	O
ATOM	162	CB	ASN A 125	-14.797	-5.971	2.966	1.00	15.00	A	C
ATOM	163	CG	ASN A 125	-15.683	-6.105	4.193	1.00	15.00	A	C
ATOM	164	ND2	ASN A 125	-15.996	-7.346	4.566	1.00	15.00	A	N
ATOM	165	OD1	ASN A 125	-16.095	-5.110	4.789	1.00	15.00	A	O
ATOM	166	HN	ASN A 125	-16.860	-6.229	1.137	1.00	15.00	A	H
ATOM	167	HD21	ASN A 125	-15.642	-8.092	4.037	1.00	15.00	A	H
ATOM	168	HD22	ASN A 125	-16.569	-7.463	5.354	1.00	15.00	A	H
ATOM	169	N	VAL A 126	-13.187	-4.601	0.889	1.00	15.00	A	N
ATOM	170	CA	VAL A 126	-12.227	-4.546	-0.214	1.00	15.00	A	C
ATOM	171	C	VAL A 126	-10.919	-5.246	0.150	1.00	15.00	A	C
ATOM	172	O	VAL A 126	-10.269	-4.900	1.139	1.00	15.00	A	O
ATOM	173	CB	VAL A 126	-11.927	-3.092	-0.654	1.00	15.00	A	C
ATOM	174	CG1	VAL A 126	-10.796	-3.055	-1.672	1.00	15.00	A	C
ATOM	175	CG2	VAL A 126	-13.171	-2.437	-1.232	1.00	15.00	A	C
ATOM	176	HN	VAL A 126	-12.887	-4.374	1.795	1.00	15.00	A	H
ATOM	177	N	VAL A 127	-10.541	-6.230	-0.661	1.00	15.00	A	N
ATOM	178	CA	VAL A 127	-9.309	-6.981	-0.447	1.00	15.00	A	C
ATOM	179	C	VAL A 127	-8.129	-6.286	-1.125	1.00	15.00	A	C
ATOM	180	O	VAL A 127	-8.023	-6.270	-2.351	1.00	15.00	A	O
ATOM	181	CB	VAL A 127	-9.426	-8.422	-0.986	1.00	15.00	A	C
ATOM	182	CG1	VAL A 127	-8.148	-9.204	-0.727	1.00	15.00	A	C
ATOM	183	CG2	VAL A 127	-10.619	-9.131	-0.367	1.00	15.00	A	C
ATOM	184	HN	VAL A 127	-11.108	-6.456	-1.428	1.00	15.00	A	H
ATOM	185	N	LEU A 128	-7.249	-5.712	-0.315	1.00	15.00	A	N
ATOM	186	CA	LEU A 128	-6.073	-5.018	-0.824	1.00	15.00	A	C

ATOM	187	C	LEU A 128	-4.817	-5.871	-0.655	1.00	15.00	A	C
ATOM	188	O	LEU A 128	-4.509	-6.331	0.440	1.00	15.00	A	O
ATOM	189	CB	LEU A 128	-5.901	-3.676	-0.103	1.00	15.00	A	C
ATOM	190	CG	LEU A 128	-4.811	-2.744	-0.647	1.00	15.00	A	C
ATOM	191	CD1	LEU A 128	-5.176	-2.249	-2.038	1.00	15.00	A	C
ATOM	192	CD2	LEU A 128	-4.584	-1.574	0.297	1.00	15.00	A	C
ATOM	193	HN	LEU A 128	-7.396	-5.757	0.654	1.00	15.00	A	H
ATOM	194	N	ARG A 129	-4.104	-6.086	-1.753	1.00	15.00	A	N
ATOM	195	CA	ARG A 129	-2.874	-6.877	-1.734	1.00	15.00	A	C
ATOM	196	C	ARG A 129	-1.704	-6.032	-2.230	1.00	15.00	A	C
ATOM	197	O	ARG A 129	-1.705	-5.577	-3.371	1.00	15.00	A	O
ATOM	198	CB	ARG A 129	-3.022	-8.126	-2.612	1.00	15.00	A	C
ATOM	199	CG	ARG A 129	-4.147	-9.063	-2.199	1.00	15.00	A	C
ATOM	200	CD	ARG A 129	-4.278	-10.227	-3.174	1.00	15.00	A	C
ATOM	201	NE	ARG A 129	-5.349	-11.151	-2.794	1.00	15.00	A	N
ATOM	202	CZ	ARG A 129	-5.350	-12.453	-3.089	1.00	15.00	A	C
ATOM	203	NH1	ARG A 129	-4.341	-12.986	-3.766	1.00	15.00	A	N1+
ATOM	204	NH2	ARG A 129	-6.362	-13.222	-2.702	1.00	15.00	A	N
ATOM	205	HN	ARG A 129	-4.410	-5.699	-2.601	1.00	15.00	A	H
ATOM	206	HE	ARG A 129	-6.106	-10.782	-2.294	1.00	15.00	A	H
ATOM	207	HH11	ARG A 129	-4.345	-14.001	-3.995	1.00	15.00	A	H
ATOM	208	HH12	ARG A 129	-3.544	-12.389	-4.069	1.00	15.00	A	H
ATOM	209	HH21	ARG A 129	-6.363	-14.237	-2.933	1.00	15.00	A	H
ATOM	210	HH22	ARG A 129	-7.155	-12.811	-2.168	1.00	15.00	A	H
ATOM	211	N	VAL A 130	-0.705	-5.822	-1.373	1.00	15.00	A	N
ATOM	212	CA	VAL A 130	0.454	-5.006	-1.744	1.00	15.00	A	C
ATOM	213	C	VAL A 130	1.767	-5.790	-1.685	1.00	15.00	A	C
ATOM	214	O	VAL A 130	2.227	-6.173	-0.612	1.00	15.00	A	O
ATOM	215	CB	VAL A 130	0.576	-3.748	-0.854	1.00	15.00	A	C
ATOM	216	CG1	VAL A 130	1.680	-2.833	-1.365	1.00	15.00	A	C
ATOM	217	CG2	VAL A 130	-0.746	-3.001	-0.781	1.00	15.00	A	C
ATOM	218	HN	VAL A 130	-0.745	-6.223	-0.478	1.00	15.00	A	H
ATOM	219	N	VAL A 131	2.370	-6.015	-2.849	1.00	15.00	A	N
ATOM	220	CA	VAL A 131	3.638	-6.736	-2.932	1.00	15.00	A	C
ATOM	221	C	VAL A 131	4.779	-5.764	-3.223	1.00	15.00	A	C
ATOM	222	O	VAL A 131	4.873	-5.216	-4.320	1.00	15.00	A	O
ATOM	223	CB	VAL A 131	3.611	-7.821	-4.029	1.00	15.00	A	C
ATOM	224	CG1	VAL A 131	4.869	-8.677	-3.969	1.00	15.00	A	C
ATOM	225	CG2	VAL A 131	2.367	-8.688	-3.906	1.00	15.00	A	C
ATOM	226	HN	VAL A 131	1.951	-5.687	-3.674	1.00	15.00	A	H
ATOM	227	N	SER A 132	5.647	-5.557	-2.239	1.00	15.00	A	N
ATOM	228	CA	SER A 132	6.770	-4.636	-2.393	1.00	15.00	A	C
ATOM	229	C	SER A 132	8.034	-5.184	-1.741	1.00	15.00	A	C
ATOM	230	O	SER A 132	8.151	-6.383	-1.504	1.00	15.00	A	O
ATOM	231	CB	SER A 132	6.414	-3.283	-1.776	1.00	15.00	A	C
ATOM	232	OG	SER A 132	6.026	-3.429	-0.420	1.00	15.00	A	O
ATOM	233	HN	SER A 132	5.533	-6.034	-1.392	1.00	15.00	A	H

ATOM	234	HG	SER A 132	5.760	-4.337	-0.258	1.00	15.00	A	H
ATOM	235	N	ARG A 133	8.983	-4.292	-1.464	1.00	15.00	A	N
ATOM	236	CA	ARG A 133	10.236	-4.675	-0.827	1.00	15.00	A	C
ATOM	237	C	ARG A 133	10.211	-4.324	0.661	1.00	15.00	A	C
ATOM	238	O	ARG A 133	9.240	-3.746	1.152	1.00	15.00	A	O
ATOM	239	CB	ARG A 133	11.158	-3.478	-1.078	1.00	15.00	A	C
ATOM	240	CG	ARG A 133	11.570	-3.305	-2.534	1.00	15.00	A	C
ATOM	241	CD	ARG A 133	12.579	-2.180	-2.697	1.00	15.00	A	C
ATOM	242	NE	ARG A 133	13.093	-2.098	-4.064	1.00	15.00	A	N
ATOM	243	CZ	ARG A 133	14.314	-1.666	-4.375	1.00	15.00	A	C
ATOM	244	NH1	ARG A 133	15.150	-1.275	-3.422	1.00	15.00	A	N1+
ATOM	245	NH2	ARG A 133	14.701	-1.633	-5.644	1.00	15.00	A	N
ATOM	246	HN	ARG A 133	8.835	-3.351	-1.695	1.00	15.00	A	H
ATOM	247	HE	ARG A 133	12.494	-2.377	-4.789	1.00	15.00	A	H
ATOM	248	HH11	ARG A 133	16.104	-0.939	-3.671	1.00	15.00	A	H
ATOM	249	HH12	ARG A 133	14.854	-1.303	-2.425	1.00	15.00	A	H
ATOM	250	HH21	ARG A 133	15.655	-1.296	-5.887	1.00	15.00	A	H
ATOM	251	HH22	ARG A 133	14.052	-1.942	-6.394	1.00	15.00	A	H
ATOM	252	N	ARG A 134	11.277	-4.679	1.375	1.00	15.00	A	N
ATOM	253	CA	ARG A 134	11.366	-4.405	2.808	1.00	15.00	A	C
ATOM	254	C	ARG A 134	11.715	-2.945	3.086	1.00	15.00	A	C
ATOM	255	O	ARG A 134	12.864	-2.529	2.933	1.00	15.00	A	O
ATOM	256	CB	ARG A 134	12.463	-3.718	3.628	1.00	15.00	A	C
ATOM	257	CG	ARG A 134	13.099	-4.608	4.683	1.00	15.00	A	C
ATOM	258	CD	ARG A 134	13.892	-3.795	5.692	1.00	15.00	A	C
ATOM	259	NE	ARG A 134	14.481	-4.641	6.728	1.00	15.00	A	N
ATOM	260	CZ	ARG A 134	14.462	-4.350	8.028	1.00	15.00	A	C
ATOM	261	NH1	ARG A 134	13.886	-3.232	8.455	1.00	15.00	A	N1+
ATOM	262	NH2	ARG A 134	15.022	-5.176	8.899	1.00	15.00	A	N
ATOM	263	HN	ARG A 134	12.019	-5.138	0.930	1.00	15.00	A	H
ATOM	264	HE	ARG A 134	14.915	-5.472	6.439	1.00	15.00	A	H
ATOM	265	HH11	ARG A 134	13.445	-2.580	7.776	1.00	15.00	A	H
ATOM	266	HH12	ARG A 134	13.875	-3.009	9.471	1.00	15.00	A	H
ATOM	267	HH21	ARG A 134	15.008	-4.948	9.915	1.00	15.00	A	H
ATOM	268	HH22	ARG A 134	15.475	-6.052	8.570	1.00	15.00	A	H
ATOM	269	N	ILE A 135	10.712	-2.170	3.493	1.00	15.00	A	N
ATOM	270	CA	ILE A 135	10.905	-0.757	3.803	1.00	15.00	A	C
ATOM	271	C	ILE A 135	10.510	-0.472	5.252	1.00	15.00	A	C
ATOM	272	O	ILE A 135	9.453	-0.904	5.713	1.00	15.00	A	O
ATOM	273	CB	ILE A 135	10.096	0.153	2.850	1.00	15.00	A	C
ATOM	274	CG1	ILE A 135	10.424	-0.178	1.390	1.00	15.00	A	C
ATOM	275	CG2	ILE A 135	10.382	1.621	3.138	1.00	15.00	A	C
ATOM	276	CD1	ILE A 135	9.558	0.548	0.383	1.00	15.00	A	C
ATOM	277	HN	ILE A 135	9.818	-2.560	3.586	1.00	15.00	A	H
ATOM	278	N	VAL A 136	11.370	0.253	5.966	1.00	15.00	A	N
ATOM	279	CA	VAL A 136	11.123	0.584	7.370	1.00	15.00	A	C
ATOM	280	C	VAL A 136	10.059	1.670	7.528	1.00	15.00	A	C

ATOM	281	O	VAL A 136	10.213	2.786	7.030	1.00	15.00	A	O
ATOM	282	CB	VAL A 136	12.417	1.028	8.085	1.00	15.00	A	C
ATOM	283	CG1	VAL A 136	12.165	1.252	9.570	1.00	15.00	A	C
ATOM	284	CG2	VAL A 136	13.524	0.005	7.878	1.00	15.00	A	C
ATOM	285	HN	VAL A 136	12.192	0.573	5.538	1.00	15.00	A	H
ATOM	286	N	GLY A 137	8.977	1.327	8.229	1.00	15.00	A	N
ATOM	287	CA	GLY A 137	7.900	2.277	8.463	1.00	15.00	A	C
ATOM	288	C	GLY A 137	6.939	2.391	7.295	1.00	15.00	A	C
ATOM	289	O	GLY A 137	6.124	3.311	7.247	1.00	15.00	A	O
ATOM	290	HN	GLY A 137	8.910	0.419	8.591	1.00	15.00	A	H
ATOM	291	N	GLN A 138	7.030	1.457	6.354	1.00	15.00	A	N
ATOM	292	CA	GLN A 138	6.159	1.466	5.184	1.00	15.00	A	C
ATOM	293	C	GLN A 138	4.739	1.041	5.543	1.00	15.00	A	C
ATOM	294	O	GLN A 138	3.771	1.539	4.969	1.00	15.00	A	O
ATOM	295	CB	GLN A 138	6.719	0.572	4.077	1.00	15.00	A	C
ATOM	296	CG	GLN A 138	5.938	0.649	2.775	1.00	15.00	A	C
ATOM	297	CD	GLN A 138	5.832	2.064	2.231	1.00	15.00	A	C
ATOM	298	NE2	GLN A 138	4.691	2.374	1.624	1.00	15.00	A	N
ATOM	299	OE1	GLN A 138	6.756	2.869	2.363	1.00	15.00	A	O
ATOM	300	HN	GLN A 138	7.700	0.749	6.445	1.00	15.00	A	H
ATOM	301	HE21	GLN A 138	3.999	1.682	1.562	1.00	15.00	A	H
ATOM	302	HE22	GLN A 138	4.586	3.280	1.264	1.00	15.00	A	H
ATOM	303	N	LEU A 139	4.629	0.116	6.495	1.00	15.00	A	N
ATOM	304	CA	LEU A 139	3.332	-0.378	6.945	1.00	15.00	A	C
ATOM	305	C	LEU A 139	2.520	0.749	7.570	1.00	15.00	A	C
ATOM	306	O	LEU A 139	1.321	0.870	7.325	1.00	15.00	A	O
ATOM	307	CB	LEU A 139	3.518	-1.509	7.960	1.00	15.00	A	C
ATOM	308	CG	LEU A 139	2.240	-2.057	8.600	1.00	15.00	A	C
ATOM	309	CD1	LEU A 139	1.427	-2.854	7.591	1.00	15.00	A	C
ATOM	310	CD2	LEU A 139	2.568	-2.900	9.823	1.00	15.00	A	C
ATOM	311	HN	LEU A 139	5.443	-0.240	6.908	1.00	15.00	A	H
ATOM	312	N	VAL A 140	3.193	1.578	8.368	1.00	15.00	A	N
ATOM	313	CA	VAL A 140	2.551	2.707	9.032	1.00	15.00	A	C
ATOM	314	C	VAL A 140	2.062	3.730	8.007	1.00	15.00	A	C
ATOM	315	O	VAL A 140	1.008	4.338	8.183	1.00	15.00	A	O
ATOM	316	CB	VAL A 140	3.507	3.396	10.034	1.00	15.00	A	C
ATOM	317	CG1	VAL A 140	2.771	4.450	10.851	1.00	15.00	A	C
ATOM	318	CG2	VAL A 140	4.155	2.366	10.948	1.00	15.00	A	C
ATOM	319	HN	VAL A 140	4.150	1.425	8.511	1.00	15.00	A	H
ATOM	320	N	LYS A 141	2.833	3.907	6.934	1.00	15.00	A	N
ATOM	321	CA	LYS A 141	2.475	4.844	5.875	1.00	15.00	A	C
ATOM	322	C	LYS A 141	1.214	4.396	5.142	1.00	15.00	A	C
ATOM	323	O	LYS A 141	0.349	5.212	4.835	1.00	15.00	A	O
ATOM	324	CB	LYS A 141	3.627	5.008	4.884	1.00	15.00	A	C
ATOM	325	CG	LYS A 141	4.835	5.725	5.457	1.00	15.00	A	C
ATOM	326	CD	LYS A 141	5.928	5.882	4.414	1.00	15.00	A	C
ATOM	327	CE	LYS A 141	7.118	6.639	4.977	1.00	15.00	A	C

ATOM	328	NZ	LYS A 141	8.158	6.882	3.942	1.00	15.00	A	N1+
ATOM	329	HN	LYS A 141	3.666	3.396	6.856	1.00	15.00	A	H
ATOM	330	HZ1	LYS A 141	7.752	7.409	3.142	1.00	15.00	A	H
ATOM	331	HZ2	LYS A 141	8.534	5.978	3.591	1.00	15.00	A	H
ATOM	332	HZ3	LYS A 141	8.942	7.436	4.346	1.00	15.00	A	H
ATOM	333	N	ILE A 142	1.116	3.095	4.867	1.00	15.00	A	N
ATOM	334	CA	ILE A 142	-0.048	2.542	4.174	1.00	15.00	A	C
ATOM	335	C	ILE A 142	-1.302	2.662	5.039	1.00	15.00	A	C
ATOM	336	O	ILE A 142	-2.384	2.962	4.535	1.00	15.00	A	O
ATOM	337	CB	ILE A 142	0.166	1.069	3.759	1.00	15.00	A	C
ATOM	338	CG1	ILE A 142	1.419	0.943	2.888	1.00	15.00	A	C
ATOM	339	CG2	ILE A 142	-1.054	0.543	3.010	1.00	15.00	A	C
ATOM	340	CD1	ILE A 142	1.849	-0.486	2.629	1.00	15.00	A	C
ATOM	341	HN	ILE A 142	1.842	2.493	5.136	1.00	15.00	A	H
ATOM	342	N	ILE A 143	-1.145	2.438	6.344	1.00	15.00	A	N
ATOM	343	CA	ILE A 143	-2.264	2.536	7.276	1.00	15.00	A	C
ATOM	344	C	ILE A 143	-2.747	3.983	7.396	1.00	15.00	A	C
ATOM	345	O	ILE A 143	-3.948	4.237	7.452	1.00	15.00	A	O
ATOM	346	CB	ILE A 143	-1.914	1.967	8.669	1.00	15.00	A	C
ATOM	347	CG1	ILE A 143	-1.570	0.478	8.552	1.00	15.00	A	C
ATOM	348	CG2	ILE A 143	-3.070	2.169	9.644	1.00	15.00	A	C
ATOM	349	CD1	ILE A 143	-1.050	-0.140	9.833	1.00	15.00	A	C
ATOM	350	HN	ILE A 143	-0.257	2.199	6.686	1.00	15.00	A	H
ATOM	351	N	SER A 144	-1.802	4.926	7.418	1.00	15.00	A	N
ATOM	352	CA	SER A 144	-2.135	6.347	7.508	1.00	15.00	A	C
ATOM	353	C	SER A 144	-2.877	6.820	6.258	1.00	15.00	A	C
ATOM	354	O	SER A 144	-3.740	7.694	6.334	1.00	15.00	A	O
ATOM	355	CB	SER A 144	-0.879	7.190	7.725	1.00	15.00	A	C
ATOM	356	OG	SER A 144	-0.243	6.854	8.943	1.00	15.00	A	O
ATOM	357	HN	SER A 144	-0.859	4.660	7.384	1.00	15.00	A	H
ATOM	358	HG	SER A 144	0.655	7.194	8.939	1.00	15.00	A	H
ATOM	359	N	VAL A 145	-2.533	6.239	5.106	1.00	15.00	A	N
ATOM	360	CA	VAL A 145	-3.182	6.589	3.846	1.00	15.00	A	C
ATOM	361	C	VAL A 145	-4.609	6.042	3.821	1.00	15.00	A	C
ATOM	362	O	VAL A 145	-5.528	6.708	3.348	1.00	15.00	A	O
ATOM	363	CB	VAL A 145	-2.394	6.055	2.625	1.00	15.00	A	C
ATOM	364	CG1	VAL A 145	-3.186	6.237	1.338	1.00	15.00	A	C
ATOM	365	CG2	VAL A 145	-1.049	6.757	2.510	1.00	15.00	A	C
ATOM	366	HN	VAL A 145	-1.827	5.558	5.106	1.00	15.00	A	H
ATOM	367	N	LEU A 146	-4.783	4.830	4.349	1.00	15.00	A	N
ATOM	368	CA	LEU A 146	-6.096	4.195	4.401	1.00	15.00	A	C
ATOM	369	C	LEU A 146	-7.042	4.954	5.326	1.00	15.00	A	C
ATOM	370	O	LEU A 146	-8.181	5.230	4.961	1.00	15.00	A	O
ATOM	371	CB	LEU A 146	-5.977	2.733	4.844	1.00	15.00	A	C
ATOM	372	CG	LEU A 146	-5.298	1.783	3.855	1.00	15.00	A	C
ATOM	373	CD1	LEU A 146	-5.034	0.430	4.499	1.00	15.00	A	C
ATOM	374	CD2	LEU A 146	-6.139	1.625	2.597	1.00	15.00	A	C

ATOM	375	HN	LEU A 146	-4.009	4.350	4.709	1.00	15.00	A	H
ATOM	376	N	GLU A 147	-6.558	5.301	6.521	1.00	15.00	A	N
ATOM	377	CA	GLU A 147	-7.363	6.037	7.498	1.00	15.00	A	C
ATOM	378	C	GLU A 147	-7.737	7.426	6.979	1.00	15.00	A	C
ATOM	379	O	GLU A 147	-8.803	7.951	7.303	1.00	15.00	A	O
ATOM	380	CB	GLU A 147	-6.624	6.156	8.833	1.00	15.00	A	C
ATOM	381	CG	GLU A 147	-6.308	4.823	9.492	1.00	15.00	A	C
ATOM	382	CD	GLU A 147	-5.467	4.973	10.746	1.00	15.00	A	C
ATOM	383	OE1	GLU A 147	-5.746	4.261	11.733	1.00	15.00	A	O
ATOM	384	OE2	GLU A 147	-4.532	5.802	10.740	1.00	15.00	A	O1-
ATOM	385	HN	GLU A 147	-5.637	5.053	6.752	1.00	15.00	A	H
ATOM	386	N	LYS A 148	-6.850	8.009	6.173	1.00	15.00	A	N
ATOM	387	CA	LYS A 148	-7.076	9.330	5.592	1.00	15.00	A	C
ATOM	388	C	LYS A 148	-8.134	9.274	4.486	1.00	15.00	A	C
ATOM	389	O	LYS A 148	-8.831	10.258	4.232	1.00	15.00	A	O
ATOM	390	CB	LYS A 148	-5.761	9.889	5.037	1.00	15.00	A	C
ATOM	391	CG	LYS A 148	-5.861	11.292	4.459	1.00	15.00	A	C
ATOM	392	CD	LYS A 148	-4.602	11.660	3.693	1.00	15.00	A	C
ATOM	393	CE	LYS A 148	-4.767	12.979	2.956	1.00	15.00	A	C
ATOM	394	NZ	LYS A 148	-3.570	13.308	2.134	1.00	15.00	A	N1+
ATOM	395	HN	LYS A 148	-6.015	7.540	5.969	1.00	15.00	A	H
ATOM	396	HZ1	LYS A 148	-3.391	12.552	1.443	1.00	15.00	A	H
ATOM	397	HZ2	LYS A 148	-2.734	13.410	2.744	1.00	15.00	A	H
ATOM	398	HZ3	LYS A 148	-3.721	14.201	1.622	1.00	15.00	A	H
ATOM	399	N	LEU A 149	-8.252	8.114	3.835	1.00	15.00	A	N
ATOM	400	CA	LEU A 149	-9.225	7.931	2.756	1.00	15.00	A	C
ATOM	401	C	LEU A 149	-10.536	7.342	3.281	1.00	15.00	A	C
ATOM	402	O	LEU A 149	-11.366	6.874	2.499	1.00	15.00	A	O
ATOM	403	CB	LEU A 149	-8.653	7.037	1.650	1.00	15.00	A	C
ATOM	404	CG	LEU A 149	-7.342	7.495	1.002	1.00	15.00	A	C
ATOM	405	CD1	LEU A 149	-6.950	6.562	-0.133	1.00	15.00	A	C
ATOM	406	CD2	LEU A 149	-7.444	8.933	0.515	1.00	15.00	A	C
ATOM	407	HN	LEU A 149	-7.676	7.363	4.088	1.00	15.00	A	H
ATOM	408	N	SER A 150	-10.703	7.368	4.607	1.00	15.00	A	N
ATOM	409	CA	SER A 150	-11.906	6.852	5.269	1.00	15.00	A	C
ATOM	410	C	SER A 150	-12.034	5.328	5.169	1.00	15.00	A	C
ATOM	411	O	SER A 150	-13.139	4.797	5.058	1.00	15.00	A	O
ATOM	412	CB	SER A 150	-13.174	7.546	4.754	1.00	15.00	A	C
ATOM	413	OG	SER A 150	-13.092	8.952	4.921	1.00	15.00	A	O
ATOM	414	HN	SER A 150	-9.990	7.750	5.164	1.00	15.00	A	H
ATOM	415	HG	SER A 150	-13.694	9.227	5.618	1.00	15.00	A	H
ATOM	416	N	PHE A 151	-10.904	4.629	5.220	1.00	15.00	A	N
ATOM	417	CA	PHE A 151	-10.899	3.169	5.155	1.00	15.00	A	C
ATOM	418	C	PHE A 151	-10.561	2.562	6.511	1.00	15.00	A	C
ATOM	419	O	PHE A 151	-9.555	2.917	7.127	1.00	15.00	A	O
ATOM	420	CB	PHE A 151	-9.911	2.664	4.101	1.00	15.00	A	C
ATOM	421	CG	PHE A 151	-10.423	2.755	2.695	1.00	15.00	A	C

ATOM	422	CD1 PHE A 151	-11.311	1.811	2.205	1.00	15.00	A	C
ATOM	423	CD2 PHE A 151	-10.015	3.781	1.863	1.00	15.00	A	C
ATOM	424	CE1 PHE A 151	-11.783	1.890	0.908	1.00	15.00	A	C
ATOM	425	CE2 PHE A 151	-10.481	3.868	0.565	1.00	15.00	A	C
ATOM	426	CZ PHE A 151	-11.367	2.920	0.087	1.00	15.00	A	C
ATOM	427	HN PHE A 151	-10.050	5.105	5.297	1.00	15.00	A	H
ATOM	428	N GLN A 152	-11.405	1.646	6.970	1.00	15.00	A	N
ATOM	429	CA GLN A 152	-11.190	0.988	8.251	1.00	15.00	A	C
ATOM	430	C GLN A 152	-10.563	-0.390	8.056	1.00	15.00	A	C
ATOM	431	O GLN A 152	-11.136	-1.255	7.395	1.00	15.00	A	O
ATOM	432	CB GLN A 152	-12.506	0.864	9.024	1.00	15.00	A	C
ATOM	433	CG GLN A 152	-12.380	0.128	10.350	1.00	15.00	A	C
ATOM	434	CD GLN A 152	-13.704	-0.024	11.068	1.00	15.00	A	C
ATOM	435	NE2 GLN A 152	-13.647	-0.087	12.395	1.00	15.00	A	N
ATOM	436	OE1 GLN A 152	-14.764	-0.088	10.442	1.00	15.00	A	O
ATOM	437	HN GLN A 152	-12.189	1.403	6.431	1.00	15.00	A	H
ATOM	438	HE21 GLN A 152	-12.766	-0.034	12.822	1.00	15.00	A	H
ATOM	439	HE22 GLN A 152	-14.486	-0.186	12.892	1.00	15.00	A	H
ATOM	440	N VAL A 153	-9.385	-0.583	8.637	1.00	15.00	A	N
ATOM	441	CA VAL A 153	-8.682	-1.856	8.537	1.00	15.00	A	C
ATOM	442	C VAL A 153	-9.304	-2.890	9.471	1.00	15.00	A	C
ATOM	443	O VAL A 153	-9.299	-2.718	10.690	1.00	15.00	A	O
ATOM	444	CB VAL A 153	-7.184	-1.704	8.877	1.00	15.00	A	C
ATOM	445	CG1 VAL A 153	-6.430	-2.996	8.600	1.00	15.00	A	C
ATOM	446	CG2 VAL A 153	-6.568	-0.546	8.104	1.00	15.00	A	C
ATOM	447	HN VAL A 153	-8.977	0.149	9.142	1.00	15.00	A	H
ATOM	448	N LEU A 154	-9.849	-3.956	8.894	1.00	15.00	A	N
ATOM	449	CA LEU A 154	-10.470	-5.016	9.683	1.00	15.00	A	C
ATOM	450	C LEU A 154	-9.485	-6.157	9.937	1.00	15.00	A	C
ATOM	451	O LEU A 154	-9.447	-6.724	11.029	1.00	15.00	A	O
ATOM	452	CB LEU A 154	-11.724	-5.552	8.987	1.00	15.00	A	C
ATOM	453	CG LEU A 154	-12.739	-4.513	8.501	1.00	15.00	A	C
ATOM	454	CD1 LEU A 154	-13.753	-5.159	7.570	1.00	15.00	A	C
ATOM	455	CD2 LEU A 154	-13.439	-3.846	9.677	1.00	15.00	A	C
ATOM	456	HN LEU A 154	-9.834	-4.032	7.918	1.00	15.00	A	H
ATOM	457	N HIS A 155	-8.685	-6.482	8.920	1.00	15.00	A	N
ATOM	458	CA HIS A 155	-7.698	-7.553	9.031	1.00	15.00	A	C
ATOM	459	C HIS A 155	-6.397	-7.181	8.319	1.00	15.00	A	C
ATOM	460	O HIS A 155	-6.410	-6.519	7.280	1.00	15.00	A	O
ATOM	461	CB HIS A 155	-8.265	-8.868	8.475	1.00	15.00	A	C
ATOM	462	CG HIS A 155	-7.354	-10.052	8.632	1.00	15.00	A	C
ATOM	463	CD2 HIS A 155	-7.141	-10.840	9.717	1.00	15.00	A	C
ATOM	464	ND1 HIS A 155	-6.571	-10.496	7.592	1.00	15.00	A	N
ATOM	465	CE1 HIS A 155	-5.903	-11.534	8.058	1.00	15.00	A	C
ATOM	466	NE2 HIS A 155	-6.215	-11.780	9.338	1.00	15.00	A	N
ATOM	467	HN HIS A 155	-8.761	-5.988	8.077	1.00	15.00	A	H
ATOM	468	HE2 HIS A 155	-5.856	-12.499	9.898	1.00	15.00	A	H

ATOM	469	N	LEU A 156	-5.277	-7.613	8.894	1.00	15.00	A	N
ATOM	470	CA	LEU A 156	-3.963	-7.337	8.326	1.00	15.00	A	C
ATOM	471	C	LEU A 156	-3.026	-8.536	8.488	1.00	15.00	A	C
ATOM	472	O	LEU A 156	-2.764	-8.990	9.603	1.00	15.00	A	O
ATOM	473	CB	LEU A 156	-3.360	-6.078	8.966	1.00	15.00	A	C
ATOM	474	CG	LEU A 156	-1.860	-5.830	8.749	1.00	15.00	A	C
ATOM	475	CD1	LEU A 156	-1.513	-5.796	7.265	1.00	15.00	A	C
ATOM	476	CD2	LEU A 156	-1.433	-4.535	9.427	1.00	15.00	A	C
ATOM	477	HN	LEU A 156	-5.338	-8.130	9.723	1.00	15.00	A	H
ATOM	478	N	ASN A 157	-2.532	-9.042	7.361	1.00	15.00	A	N
ATOM	479	CA	ASN A 157	-1.619	-10.182	7.352	1.00	15.00	A	C
ATOM	480	C	ASN A 157	-0.309	-9.806	6.657	1.00	15.00	A	C
ATOM	481	O	ASN A 157	-0.310	-9.389	5.500	1.00	15.00	A	O
ATOM	482	CB	ASN A 157	-2.275	-11.383	6.658	1.00	15.00	A	C
ATOM	483	CG	ASN A 157	-1.353	-12.583	6.533	1.00	15.00	A	C
ATOM	484	ND2	ASN A 157	-1.278	-13.388	7.588	1.00	15.00	A	N
ATOM	485	OD1	ASN A 157	-0.716	-12.785	5.497	1.00	15.00	A	O
ATOM	486	HN	ASN A 157	-2.784	-8.630	6.506	1.00	15.00	A	H
ATOM	487	HD21	ASN A 157	-1.813	-13.167	8.379	1.00	15.00	A	H
ATOM	488	HD22	ASN A 157	-0.689	-14.171	7.534	1.00	15.00	A	H
ATOM	489	N	ILE A 158	0.806	-9.954	7.372	1.00	15.00	A	N
ATOM	490	CA	ILE A 158	2.119	-9.612	6.825	1.00	15.00	A	C
ATOM	491	C	ILE A 158	2.986	-10.851	6.594	1.00	15.00	A	C
ATOM	492	O	ILE A 158	3.418	-11.506	7.542	1.00	15.00	A	O
ATOM	493	CB	ILE A 158	2.879	-8.633	7.748	1.00	15.00	A	C
ATOM	494	CG1	ILE A 158	2.015	-7.409	8.067	1.00	15.00	A	C
ATOM	495	CG2	ILE A 158	4.195	-8.204	7.111	1.00	15.00	A	C
ATOM	496	CD1	ILE A 158	2.540	-6.579	9.218	1.00	15.00	A	C
ATOM	497	HN	ILE A 158	0.744	-10.302	8.286	1.00	15.00	A	H
ATOM	498	N	SER A 159	3.238	-11.160	5.326	1.00	15.00	A	N
ATOM	499	CA	SER A 159	4.069	-12.304	4.961	1.00	15.00	A	C
ATOM	500	C	SER A 159	5.314	-11.838	4.212	1.00	15.00	A	C
ATOM	501	O	SER A 159	5.213	-11.161	3.192	1.00	15.00	A	O
ATOM	502	CB	SER A 159	3.278	-13.290	4.098	1.00	15.00	A	C
ATOM	503	OG	SER A 159	2.136	-13.770	4.786	1.00	15.00	A	O
ATOM	504	HN	SER A 159	2.851	-10.605	4.615	1.00	15.00	A	H
ATOM	505	HG	SER A 159	2.357	-13.927	5.705	1.00	15.00	A	H
ATOM	506	N	SER A 160	6.490	-12.196	4.717	1.00	15.00	A	N
ATOM	507	CA	SER A 160	7.739	-11.788	4.081	1.00	15.00	A	C
ATOM	508	C	SER A 160	8.515	-12.973	3.513	1.00	15.00	A	C
ATOM	509	O	SER A 160	8.561	-14.048	4.113	1.00	15.00	A	O
ATOM	510	CB	SER A 160	8.613	-10.995	5.058	1.00	15.00	A	C
ATOM	511	OG	SER A 160	8.953	-11.776	6.190	1.00	15.00	A	O
ATOM	512	HN	SER A 160	6.520	-12.745	5.529	1.00	15.00	A	H
ATOM	513	HG	SER A 160	9.108	-12.683	5.920	1.00	15.00	A	H
ATOM	514	N	MET A 161	9.125	-12.760	2.349	1.00	15.00	A	N
ATOM	515	CA	MET A 161	9.916	-13.790	1.685	1.00	15.00	A	C

ATOM	516	C	MET A 161	11.138	-13.172	1.008	1.00	15.00	A	C
ATOM	517	O	MET A 161	11.003	-12.416	0.045	1.00	15.00	A	O
ATOM	518	CB	MET A 161	9.069	-14.544	0.654	1.00	15.00	A	C
ATOM	519	CG	MET A 161	9.737	-15.792	0.096	1.00	15.00	A	C
ATOM	520	SD	MET A 161	8.844	-16.498	-1.303	1.00	15.00	A	S
ATOM	521	CE	MET A 161	9.066	-15.212	-2.528	1.00	15.00	A	C
ATOM	522	HN	MET A 161	9.038	-11.881	1.923	1.00	15.00	A	H
ATOM	523	N	GLU A 162	12.323	-13.505	1.527	1.00	15.00	A	N
ATOM	524	CA	GLU A 162	13.592	-12.998	0.997	1.00	15.00	A	C
ATOM	525	C	GLU A 162	13.783	-11.494	1.197	1.00	15.00	A	C
ATOM	526	O	GLU A 162	14.153	-11.047	2.284	1.00	15.00	A	O
ATOM	527	CB	GLU A 162	14.795	-12.196	1.510	1.00	15.00	A	C
ATOM	528	CG	GLU A 162	15.613	-12.905	2.577	1.00	15.00	A	C
ATOM	529	CD	GLU A 162	16.841	-12.114	2.981	1.00	15.00	A	C
ATOM	530	OE1	GLU A 162	17.894	-12.279	2.329	1.00	15.00	A	O
ATOM	531	OE2	GLU A 162	16.750	-11.327	3.947	1.00	15.00	A	O1-
ATOM	532	HN	GLU A 162	12.344	-14.114	2.293	1.00	15.00	A	H
ATOM	533	N	GLU A 163	13.525	-10.719	0.147	1.00	15.00	A	N
ATOM	534	CA	GLU A 163	13.676	-9.269	0.208	1.00	15.00	A	C
ATOM	535	C	GLU A 163	12.356	-8.554	-0.074	1.00	15.00	A	C
ATOM	536	O	GLU A 163	12.297	-7.325	-0.061	1.00	15.00	A	O
ATOM	537	CB	GLU A 163	14.742	-8.802	-0.790	1.00	15.00	A	C
ATOM	538	CG	GLU A 163	16.139	-9.343	-0.521	1.00	15.00	A	C
ATOM	539	CD	GLU A 163	17.161	-8.850	-1.529	1.00	15.00	A	C
ATOM	540	OE1	GLU A 163	17.214	-9.410	-2.645	1.00	15.00	A	O
ATOM	541	OE2	GLU A 163	17.908	-7.903	-1.203	1.00	15.00	A	O1-
ATOM	542	HN	GLU A 163	13.228	-11.132	-0.690	1.00	15.00	A	H
ATOM	543	N	THR A 164	11.297	-9.323	-0.325	1.00	15.00	A	N
ATOM	544	CA	THR A 164	9.988	-8.744	-0.621	1.00	15.00	A	C
ATOM	545	C	THR A 164	9.007	-8.906	0.538	1.00	15.00	A	C
ATOM	546	O	THR A 164	9.105	-9.851	1.319	1.00	15.00	A	O
ATOM	547	CB	THR A 164	9.369	-9.361	-1.889	1.00	15.00	A	C
ATOM	548	CG2	THR A 164	10.231	-9.065	-3.107	1.00	15.00	A	C
ATOM	549	OG1	THR A 164	9.240	-10.781	-1.727	1.00	15.00	A	O
ATOM	550	HN	THR A 164	11.398	-10.297	-0.313	1.00	15.00	A	H
ATOM	551	HG1	THR A 164	8.900	-10.976	-0.849	1.00	15.00	A	H
ATOM	552	N	VAL A 165	8.067	-7.965	0.640	1.00	15.00	A	N
ATOM	553	CA	VAL A 165	7.046	-7.990	1.687	1.00	15.00	A	C
ATOM	554	C	VAL A 165	5.656	-7.775	1.083	1.00	15.00	A	C
ATOM	555	O	VAL A 165	5.434	-6.825	0.330	1.00	15.00	A	O
ATOM	556	CB	VAL A 165	7.293	-6.918	2.775	1.00	15.00	A	C
ATOM	557	CG1	VAL A 165	6.277	-7.051	3.898	1.00	15.00	A	C
ATOM	558	CG2	VAL A 165	8.704	-7.019	3.330	1.00	15.00	A	C
ATOM	559	HN	VAL A 165	8.058	-7.232	-0.011	1.00	15.00	A	H
ATOM	560	N	LEU A 166	4.730	-8.665	1.425	1.00	15.00	A	N
ATOM	561	CA	LEU A 166	3.363	-8.598	0.928	1.00	15.00	A	C
ATOM	562	C	LEU A 166	2.415	-8.053	1.999	1.00	15.00	A	C

ATOM	563	O	LEU A 166	2.266	-8.640	3.071	1.00	15.00	A	O
ATOM	564	CB	LEU A 166	2.912	-9.993	0.476	1.00	15.00	A	C
ATOM	565	CG	LEU A 166	1.417	-10.187	0.204	1.00	15.00	A	C
ATOM	566	CD1	LEU A 166	0.967	-9.352	-0.987	1.00	15.00	A	C
ATOM	567	CD2	LEU A 166	1.105	-11.658	-0.019	1.00	15.00	A	C
ATOM	568	HN	LEU A 166	4.976	-9.390	2.035	1.00	15.00	A	H
ATOM	569	N	TYR A 167	1.778	-6.926	1.693	1.00	15.00	A	N
ATOM	570	CA	TYR A 167	0.848	-6.291	2.619	1.00	15.00	A	C
ATOM	571	C	TYR A 167	-0.604	-6.556	2.216	1.00	15.00	A	C
ATOM	572	O	TYR A 167	-1.129	-5.931	1.293	1.00	15.00	A	O
ATOM	573	CB	TYR A 167	1.102	-4.783	2.680	1.00	15.00	A	C
ATOM	574	CG	TYR A 167	2.472	-4.390	3.194	1.00	15.00	A	C
ATOM	575	CD1	TYR A 167	2.798	-4.523	4.539	1.00	15.00	A	C
ATOM	576	CD2	TYR A 167	3.435	-3.877	2.333	1.00	15.00	A	C
ATOM	577	CE1	TYR A 167	4.045	-4.154	5.011	1.00	15.00	A	C
ATOM	578	CE2	TYR A 167	4.684	-3.508	2.796	1.00	15.00	A	C
ATOM	579	CZ	TYR A 167	4.984	-3.649	4.135	1.00	15.00	A	C
ATOM	580	OH	TYR A 167	6.226	-3.280	4.599	1.00	15.00	A	O
ATOM	581	HN	TYR A 167	1.941	-6.509	0.820	1.00	15.00	A	H
ATOM	582	HH	TYR A 167	6.472	-2.435	4.218	1.00	15.00	A	H
ATOM	583	N	PHE A 168	-1.246	-7.482	2.919	1.00	15.00	A	N
ATOM	584	CA	PHE A 168	-2.636	-7.831	2.648	1.00	15.00	A	C
ATOM	585	C	PHE A 168	-3.573	-6.986	3.510	1.00	15.00	A	C
ATOM	586	O	PHE A 168	-3.559	-7.084	4.736	1.00	15.00	A	O
ATOM	587	CB	PHE A 168	-2.866	-9.325	2.907	1.00	15.00	A	C
ATOM	588	CG	PHE A 168	-4.202	-9.837	2.447	1.00	15.00	A	C
ATOM	589	CD1	PHE A 168	-5.188	-10.159	3.365	1.00	15.00	A	C
ATOM	590	CD2	PHE A 168	-4.469	-10.001	1.097	1.00	15.00	A	C
ATOM	591	CE1	PHE A 168	-6.417	-10.635	2.947	1.00	15.00	A	C
ATOM	592	CE2	PHE A 168	-5.694	-10.475	0.672	1.00	15.00	A	C
ATOM	593	CZ	PHE A 168	-6.669	-10.793	1.598	1.00	15.00	A	C
ATOM	594	HN	PHE A 168	-0.771	-7.941	3.642	1.00	15.00	A	H
ATOM	595	N	PHE A 169	-4.385	-6.158	2.860	1.00	15.00	A	N
ATOM	596	CA	PHE A 169	-5.315	-5.283	3.567	1.00	15.00	A	C
ATOM	597	C	PHE A 169	-6.770	-5.560	3.208	1.00	15.00	A	C
ATOM	598	O	PHE A 169	-7.112	-5.750	2.043	1.00	15.00	A	O
ATOM	599	CB	PHE A 169	-5.008	-3.811	3.269	1.00	15.00	A	C
ATOM	600	CG	PHE A 169	-3.735	-3.295	3.874	1.00	15.00	A	C
ATOM	601	CD1	PHE A 169	-3.717	-2.798	5.167	1.00	15.00	A	C
ATOM	602	CD2	PHE A 169	-2.560	-3.295	3.142	1.00	15.00	A	C
ATOM	603	CE1	PHE A 169	-2.548	-2.310	5.720	1.00	15.00	A	C
ATOM	604	CE2	PHE A 169	-1.388	-2.810	3.690	1.00	15.00	A	C
ATOM	605	CZ	PHE A 169	-1.381	-2.318	4.981	1.00	15.00	A	C
ATOM	606	HN	PHE A 169	-4.359	-6.134	1.881	1.00	15.00	A	H
ATOM	607	N	VAL A 170	-7.614	-5.589	4.231	1.00	15.00	A	N
ATOM	608	CA	VAL A 170	-9.050	-5.781	4.055	1.00	15.00	A	C
ATOM	609	C	VAL A 170	-9.746	-4.547	4.625	1.00	15.00	A	C

ATOM	610	O	VAL A 170	-10.171	-4.530	5.779	1.00	15.00	A	O
ATOM	611	CB	VAL A 170	-9.560	-7.047	4.781	1.00	15.00	A	C
ATOM	612	CG1	VAL A 170	-11.043	-7.271	4.507	1.00	15.00	A	C
ATOM	613	CG2	VAL A 170	-8.756	-8.267	4.356	1.00	15.00	A	C
ATOM	614	HN	VAL A 170	-7.260	-5.474	5.139	1.00	15.00	A	H
ATOM	615	N	VAL A 171	-9.829	-3.503	3.812	1.00	15.00	A	N
ATOM	616	CA	VAL A 171	-10.417	-2.238	4.242	1.00	15.00	A	C
ATOM	617	C	VAL A 171	-11.896	-2.084	3.903	1.00	15.00	A	C
ATOM	618	O	VAL A 171	-12.408	-2.685	2.961	1.00	15.00	A	O
ATOM	619	CB	VAL A 171	-9.643	-1.030	3.669	1.00	15.00	A	C
ATOM	620	CG1	VAL A 171	-8.263	-0.934	4.294	1.00	15.00	A	C
ATOM	621	CG2	VAL A 171	-9.536	-1.119	2.153	1.00	15.00	A	C
ATOM	622	HN	VAL A 171	-9.490	-3.586	2.898	1.00	15.00	A	H
ATOM	623	N	LYS A 172	-12.565	-1.261	4.702	1.00	15.00	A	N
ATOM	624	CA	LYS A 172	-13.975	-0.949	4.516	1.00	15.00	A	C
ATOM	625	C	LYS A 172	-14.082	0.470	3.963	1.00	15.00	A	C
ATOM	626	O	LYS A 172	-13.425	1.385	4.465	1.00	15.00	A	O
ATOM	627	CB	LYS A 172	-14.710	-1.044	5.861	1.00	15.00	A	C
ATOM	628	CG	LYS A 172	-16.179	-0.650	5.818	1.00	15.00	A	C
ATOM	629	CD	LYS A 172	-16.767	-0.568	7.220	1.00	15.00	A	C
ATOM	630	CE	LYS A 172	-18.220	-0.118	7.194	1.00	15.00	A	C
ATOM	631	NZ	LYS A 172	-18.799	-0.016	8.563	1.00	15.00	A	N1+
ATOM	632	HN	LYS A 172	-12.089	-0.848	5.454	1.00	15.00	A	H
ATOM	633	HZ1	LYS A 172	-18.257	0.668	9.131	1.00	15.00	A	H
ATOM	634	HZ2	LYS A 172	-18.770	-0.941	9.036	1.00	15.00	A	H
ATOM	635	HZ3	LYS A 172	-19.789	0.302	8.511	1.00	15.00	A	H
ATOM	636	N	ILE A 173	-14.892	0.648	2.924	1.00	15.00	A	N
ATOM	637	CA	ILE A 173	-15.064	1.961	2.303	1.00	15.00	A	C
ATOM	638	C	ILE A 173	-15.872	2.901	3.196	1.00	15.00	A	C
ATOM	639	O	ILE A 173	-16.999	2.591	3.585	1.00	15.00	A	O
ATOM	640	CB	ILE A 173	-15.756	1.853	0.926	1.00	15.00	A	C
ATOM	641	CG1	ILE A 173	-15.089	0.771	0.073	1.00	15.00	A	C
ATOM	642	CG2	ILE A 173	-15.724	3.195	0.205	1.00	15.00	A	C
ATOM	643	CD1	ILE A 173	-15.862	0.424	-1.183	1.00	15.00	A	C
ATOM	644	HN	ILE A 173	-15.384	-0.119	2.566	1.00	15.00	A	H
ATOM	645	N	GLY A 174	-15.283	4.052	3.517	1.00	15.00	A	N
ATOM	646	CA	GLY A 174	-15.959	5.030	4.352	1.00	15.00	A	C
ATOM	647	C	GLY A 174	-17.026	5.794	3.588	1.00	15.00	A	C
ATOM	648	O	GLY A 174	-17.065	5.756	2.357	1.00	15.00	A	O
ATOM	649	HN	GLY A 174	-14.378	4.236	3.187	1.00	15.00	A	H
ATOM	650	N	LEU A 175	-17.893	6.491	4.317	1.00	15.00	A	N
ATOM	651	CA	LEU A 175	-18.971	7.262	3.701	1.00	15.00	A	C
ATOM	652	C	LEU A 175	-18.454	8.548	3.059	1.00	15.00	A	C
ATOM	653	O	LEU A 175	-19.128	9.145	2.220	1.00	15.00	A	O
ATOM	654	CB	LEU A 175	-20.054	7.590	4.734	1.00	15.00	A	C
ATOM	655	CG	LEU A 175	-20.729	6.394	5.409	1.00	15.00	A	C
ATOM	656	CD1	LEU A 175	-21.643	6.858	6.533	1.00	15.00	A	C

ATOM	657	CD2 LEU A 175	-21.505	5.568	4.393	1.00	15.00	A	C
ATOM	658	HN LEU A 175	-17.810	6.485	5.292	1.00	15.00	A	H
ATOM	659	N GLU A 176	-17.255	8.968	3.455	1.00	15.00	A	N
ATOM	660	CA GLU A 176	-16.659	10.187	2.916	1.00	15.00	A	C
ATOM	661	C GLU A 176	-15.627	9.885	1.829	1.00	15.00	A	C
ATOM	662	O GLU A 176	-14.865	10.763	1.426	1.00	15.00	A	O
ATOM	663	CB GLU A 176	-16.023	11.015	4.036	1.00	15.00	A	C
ATOM	664	CG GLU A 176	-16.995	11.410	5.137	1.00	15.00	A	C
ATOM	665	CD GLU A 176	-16.333	12.183	6.260	1.00	15.00	A	C
ATOM	666	OE1 GLU A 176	-17.062	12.823	7.048	1.00	15.00	A	O
ATOM	667	OE2 GLU A 176	-15.086	12.151	6.354	1.00	15.00	A	O1-
ATOM	668	HN GLU A 176	-16.762	8.449	4.124	1.00	15.00	A	H
ATOM	669	N CYS A 177	-15.611	8.642	1.351	1.00	15.00	A	N
ATOM	670	CA CYS A 177	-14.674	8.236	0.309	1.00	15.00	A	C
ATOM	671	C CYS A 177	-15.248	8.503	-1.081	1.00	15.00	A	C
ATOM	672	O CYS A 177	-16.292	7.964	-1.445	1.00	15.00	A	O
ATOM	673	CB CYS A 177	-14.304	6.757	0.454	1.00	15.00	A	C
ATOM	674	SG CYS A 177	-13.135	6.157	-0.790	1.00	15.00	A	S
ATOM	675	HN CYS A 177	-16.243	7.984	1.708	1.00	15.00	A	H
ATOM	676	HG CYS A 177	-12.163	5.511	-0.162	1.00	15.00	A	H
ATOM	677	N HIS A 178	-14.550	9.336	-1.850	1.00	15.00	A	N
ATOM	678	CA HIS A 178	-14.987	9.683	-3.201	1.00	15.00	A	C
ATOM	679	C HIS A 178	-13.955	9.245	-4.241	1.00	15.00	A	C
ATOM	680	O HIS A 178	-14.018	9.651	-5.402	1.00	15.00	A	O
ATOM	681	CB HIS A 178	-15.226	11.196	-3.312	1.00	15.00	A	C
ATOM	682	CG HIS A 178	-16.159	11.749	-2.273	1.00	15.00	A	C
ATOM	683	CD2 HIS A 178	-15.882	12.516	-1.186	1.00	15.00	A	C
ATOM	684	ND1 HIS A 178	-17.511	11.501	-2.317	1.00	15.00	A	N
ATOM	685	CE1 HIS A 178	-18.027	12.115	-1.267	1.00	15.00	A	C
ATOM	686	NE2 HIS A 178	-17.080	12.740	-0.555	1.00	15.00	A	N
ATOM	687	HN HIS A 178	-13.724	9.727	-1.501	1.00	15.00	A	H
ATOM	688	HE2 HIS A 178	-17.217	13.259	0.267	1.00	15.00	A	H
ATOM	689	N LEU A 179	-13.006	8.416	-3.814	1.00	15.00	A	N
ATOM	690	CA LEU A 179	-11.956	7.929	-4.702	1.00	15.00	A	C
ATOM	691	C LEU A 179	-12.274	6.536	-5.236	1.00	15.00	A	C
ATOM	692	O LEU A 179	-12.938	5.739	-4.572	1.00	15.00	A	O
ATOM	693	CB LEU A 179	-10.608	7.922	-3.980	1.00	15.00	A	C
ATOM	694	CG LEU A 179	-10.116	9.279	-3.470	1.00	15.00	A	C
ATOM	695	CD1 LEU A 179	-9.727	9.182	-2.005	1.00	15.00	A	C
ATOM	696	CD2 LEU A 179	-8.942	9.769	-4.305	1.00	15.00	A	C
ATOM	697	HN LEU A 179	-13.015	8.122	-2.880	1.00	15.00	A	H
ATOM	698	N SER A 180	-11.789	6.254	-6.443	1.00	15.00	A	N
ATOM	699	CA SER A 180	-12.008	4.958	-7.077	1.00	15.00	A	C
ATOM	700	C SER A 180	-10.876	3.989	-6.742	1.00	15.00	A	C
ATOM	701	O SER A 180	-9.951	4.332	-6.003	1.00	15.00	A	O
ATOM	702	CB SER A 180	-12.129	5.120	-8.598	1.00	15.00	A	C
ATOM	703	OG SER A 180	-10.919	5.595	-9.164	1.00	15.00	A	O

ATOM	704	HN	SER A 180	-11.272	6.936	-6.920	1.00	15.00	A	H
ATOM	705	HG	SER A 180	-10.723	5.099	-9.962	1.00	15.00	A	H
ATOM	706	N	LEU A 181	-10.951	2.780	-7.295	1.00	15.00	A	N
ATOM	707	CA	LEU A 181	-9.928	1.764	-7.059	1.00	15.00	A	C
ATOM	708	C	LEU A 181	-8.627	2.129	-7.760	1.00	15.00	A	C
ATOM	709	O	LEU A 181	-7.543	1.764	-7.303	1.00	15.00	A	O
ATOM	710	CB	LEU A 181	-10.408	0.392	-7.535	1.00	15.00	A	C
ATOM	711	CG	LEU A 181	-11.612	-0.196	-6.801	1.00	15.00	A	C
ATOM	712	CD1	LEU A 181	-11.953	-1.567	-7.361	1.00	15.00	A	C
ATOM	713	CD2	LEU A 181	-11.345	-0.277	-5.305	1.00	15.00	A	C
ATOM	714	HN	LEU A 181	-11.710	2.566	-7.873	1.00	15.00	A	H
ATOM	715	N	GLU A 182	-8.743	2.849	-8.872	1.00	15.00	A	N
ATOM	716	CA	GLU A 182	-7.579	3.271	-9.639	1.00	15.00	A	C
ATOM	717	C	GLU A 182	-6.822	4.373	-8.906	1.00	15.00	A	C
ATOM	718	O	GLU A 182	-5.594	4.385	-8.890	1.00	15.00	A	O
ATOM	719	CB	GLU A 182	-7.994	3.756	-11.030	1.00	15.00	A	C
ATOM	720	CG	GLU A 182	-8.476	2.661	-11.973	1.00	15.00	A	C
ATOM	721	CD	GLU A 182	-9.892	2.200	-11.680	1.00	15.00	A	C
ATOM	722	OE1	GLU A 182	-10.168	0.992	-11.843	1.00	15.00	A	O
ATOM	723	OE2	GLU A 182	-10.724	3.047	-11.285	1.00	15.00	A	O1-
ATOM	724	HN	GLU A 182	-9.637	3.104	-9.183	1.00	15.00	A	H
ATOM	725	N	GLU A 183	-7.568	5.293	-8.294	1.00	15.00	A	N
ATOM	726	CA	GLU A 183	-6.972	6.401	-7.551	1.00	15.00	A	C
ATOM	727	C	GLU A 183	-6.395	5.928	-6.219	1.00	15.00	A	C
ATOM	728	O	GLU A 183	-5.487	6.550	-5.671	1.00	15.00	A	O
ATOM	729	CB	GLU A 183	-8.003	7.504	-7.309	1.00	15.00	A	C
ATOM	730	CG	GLU A 183	-8.596	8.089	-8.580	1.00	15.00	A	C
ATOM	731	CD	GLU A 183	-9.585	9.200	-8.301	1.00	15.00	A	C
ATOM	732	OE1	GLU A 183	-9.227	10.378	-8.513	1.00	15.00	A	O
ATOM	733	OE2	GLU A 183	-10.716	8.894	-7.867	1.00	15.00	A	O1-
ATOM	734	HN	GLU A 183	-8.545	5.227	-8.346	1.00	15.00	A	H
ATOM	735	N	LEU A 184	-6.942	4.829	-5.702	1.00	15.00	A	N
ATOM	736	CA	LEU A 184	-6.484	4.259	-4.439	1.00	15.00	A	C
ATOM	737	C	LEU A 184	-5.126	3.588	-4.613	1.00	15.00	A	C
ATOM	738	O	LEU A 184	-4.225	3.773	-3.799	1.00	15.00	A	O
ATOM	739	CB	LEU A 184	-7.510	3.254	-3.902	1.00	15.00	A	C
ATOM	740	CG	LEU A 184	-7.110	2.468	-2.648	1.00	15.00	A	C
ATOM	741	CD1	LEU A 184	-6.977	3.391	-1.446	1.00	15.00	A	C
ATOM	742	CD2	LEU A 184	-8.112	1.359	-2.369	1.00	15.00	A	C
ATOM	743	HN	LEU A 184	-7.676	4.391	-6.183	1.00	15.00	A	H
ATOM	744	N	THR A 185	-4.987	2.815	-5.689	1.00	15.00	A	N
ATOM	745	CA	THR A 185	-3.737	2.117	-5.978	1.00	15.00	A	C
ATOM	746	C	THR A 185	-2.622	3.089	-6.357	1.00	15.00	A	C
ATOM	747	O	THR A 185	-1.445	2.798	-6.153	1.00	15.00	A	O
ATOM	748	CB	THR A 185	-3.908	1.065	-7.097	1.00	15.00	A	C
ATOM	749	CG2	THR A 185	-4.836	-0.053	-6.646	1.00	15.00	A	C
ATOM	750	OG1	THR A 185	-4.442	1.685	-8.274	1.00	15.00	A	O

ATOM	751	HN	THR A 185	-5.743	2.711	-6.304	1.00	15.00	A	H
ATOM	752	HG1	THR A 185	-5.286	2.093	-8.067	1.00	15.00	A	H
ATOM	753	N	LEU A 186	-3.000	4.242	-6.912	1.00	15.00	A	N
ATOM	754	CA	LEU A 186	-2.028	5.259	-7.310	1.00	15.00	A	C
ATOM	755	C	LEU A 186	-1.506	6.026	-6.100	1.00	15.00	A	C
ATOM	756	O	LEU A 186	-0.324	6.355	-6.029	1.00	15.00	A	O
ATOM	757	CB	LEU A 186	-2.639	6.236	-8.318	1.00	15.00	A	C
ATOM	758	CG	LEU A 186	-2.867	5.701	-9.733	1.00	15.00	A	C
ATOM	759	CD1	LEU A 186	-3.637	6.711	-10.570	1.00	15.00	A	C
ATOM	760	CD2	LEU A 186	-1.544	5.350	-10.398	1.00	15.00	A	C
ATOM	761	HN	LEU A 186	-3.954	4.411	-7.060	1.00	15.00	A	H
ATOM	762	N	GLU A 187	-2.395	6.299	-5.146	1.00	15.00	A	N
ATOM	763	CA	GLU A 187	-2.029	7.031	-3.937	1.00	15.00	A	C
ATOM	764	C	GLU A 187	-1.160	6.175	-3.017	1.00	15.00	A	C
ATOM	765	O	GLU A 187	-0.245	6.683	-2.366	1.00	15.00	A	O
ATOM	766	CB	GLU A 187	-3.281	7.516	-3.200	1.00	15.00	A	C
ATOM	767	CG	GLU A 187	-3.020	8.589	-2.151	1.00	15.00	A	C
ATOM	768	CD	GLU A 187	-2.449	9.866	-2.740	1.00	15.00	A	C
ATOM	769	OE1	GLU A 187	-1.649	10.531	-2.050	1.00	15.00	A	O
ATOM	770	OE2	GLU A 187	-2.803	10.201	-3.890	1.00	15.00	A	O1-
ATOM	771	HN	GLU A 187	-3.320	5.999	-5.258	1.00	15.00	A	H
ATOM	772	N	VAL A 188	-1.454	4.875	-2.967	1.00	15.00	A	N
ATOM	773	CA	VAL A 188	-0.687	3.946	-2.140	1.00	15.00	A	C
ATOM	774	C	VAL A 188	0.701	3.722	-2.748	1.00	15.00	A	C
ATOM	775	O	VAL A 188	1.667	3.447	-2.037	1.00	15.00	A	O
ATOM	776	CB	VAL A 188	-1.421	2.591	-1.972	1.00	15.00	A	C
ATOM	777	CG1	VAL A 188	-0.551	1.574	-1.248	1.00	15.00	A	C
ATOM	778	CG2	VAL A 188	-2.731	2.785	-1.223	1.00	15.00	A	C
ATOM	779	HN	VAL A 188	-2.204	4.533	-3.498	1.00	15.00	A	H
ATOM	780	N	GLN A 189	0.792	3.866	-4.071	1.00	15.00	A	N
ATOM	781	CA	GLN A 189	2.053	3.689	-4.783	1.00	15.00	A	C
ATOM	782	C	GLN A 189	2.972	4.903	-4.599	1.00	15.00	A	C
ATOM	783	O	GLN A 189	4.197	4.768	-4.607	1.00	15.00	A	O
ATOM	784	CB	GLN A 189	1.786	3.431	-6.273	1.00	15.00	A	C
ATOM	785	CG	GLN A 189	3.016	3.044	-7.083	1.00	15.00	A	C
ATOM	786	CD	GLN A 189	3.753	4.245	-7.649	1.00	15.00	A	C
ATOM	787	NE2	GLN A 189	5.074	4.133	-7.751	1.00	15.00	A	N
ATOM	788	OE1	GLN A 189	3.144	5.262	-7.983	1.00	15.00	A	O
ATOM	789	HN	GLN A 189	-0.013	4.093	-4.581	1.00	15.00	A	H
ATOM	790	HE21	GLN A 189	5.492	3.295	-7.462	1.00	15.00	A	H
ATOM	791	HE22	GLN A 189	5.578	4.895	-8.109	1.00	15.00	A	H
ATOM	792	N	LYS A 190	2.370	6.080	-4.424	1.00	15.00	A	N
ATOM	793	CA	LYS A 190	3.126	7.325	-4.248	1.00	15.00	A	C
ATOM	794	C	LYS A 190	3.913	7.358	-2.936	1.00	15.00	A	C
ATOM	795	O	LYS A 190	4.889	8.098	-2.814	1.00	15.00	A	O
ATOM	796	CB	LYS A 190	2.195	8.541	-4.310	1.00	15.00	A	C
ATOM	797	CG	LYS A 190	1.547	8.785	-5.661	1.00	15.00	A	C

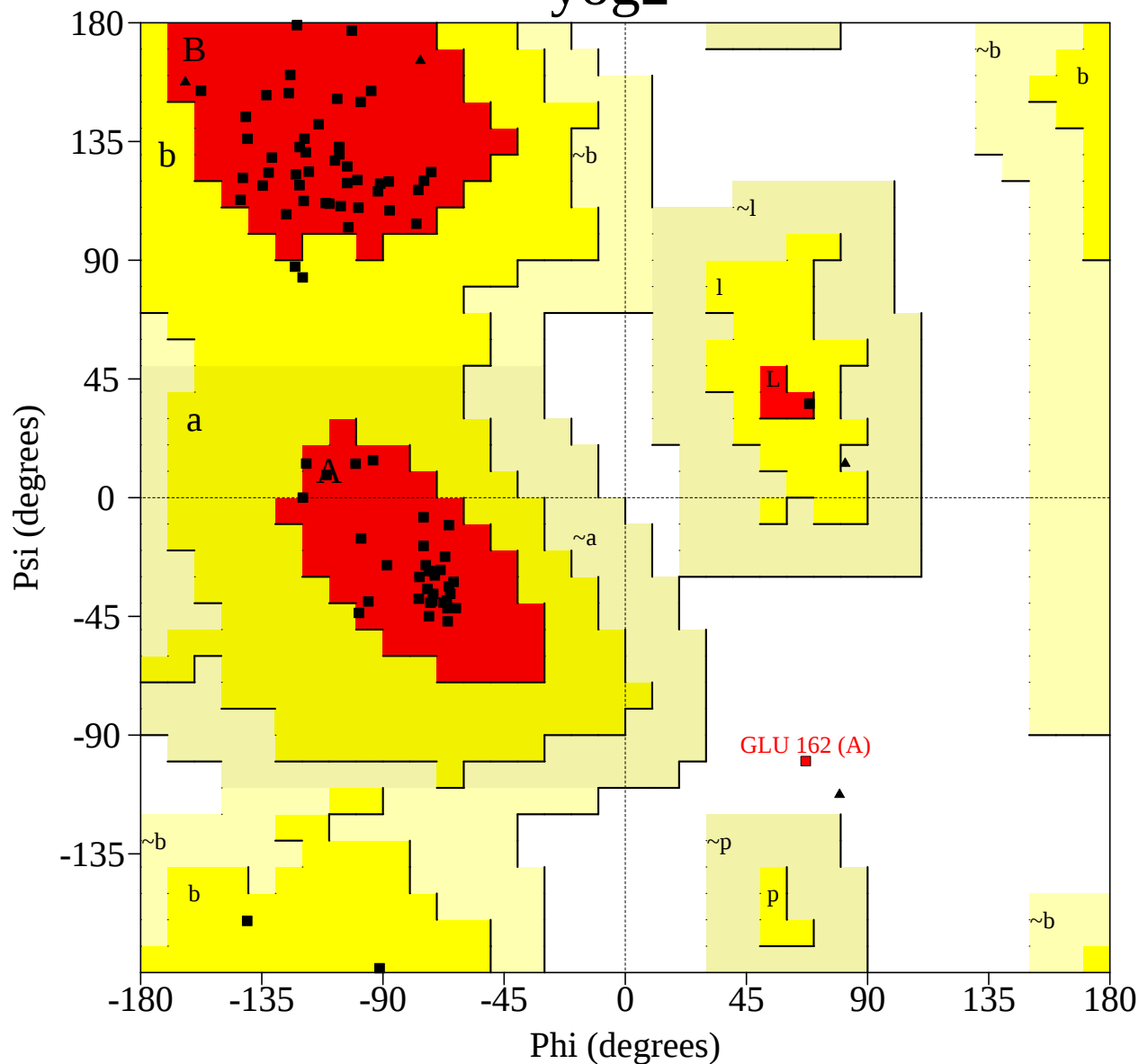
ATOM	798	CD	LYS A 190	0.482	9.867	-5.563	1.00	15.00	A	C
ATOM	799	CE	LYS A 190	-0.350	9.953	-6.832	1.00	15.00	A	C
ATOM	800	NZ	LYS A 190	-1.475	10.920	-6.691	1.00	15.00	A	N1+
ATOM	801	HN	LYS A 190	1.392	6.115	-4.417	1.00	15.00	A	H
ATOM	802	HZ1	LYS A 190	-1.105	11.876	-6.514	1.00	15.00	A	H
ATOM	803	HZ2	LYS A 190	-2.086	10.645	-5.894	1.00	15.00	A	H
ATOM	804	HZ3	LYS A 190	-2.045	10.935	-7.560	1.00	15.00	A	H
ATOM	805	N	SER A 191	3.490	6.555	-1.958	1.00	15.00	A	N
ATOM	806	CA	SER A 191	4.156	6.517	-0.653	1.00	15.00	A	C
ATOM	807	C	SER A 191	5.492	5.768	-0.701	1.00	15.00	A	C
ATOM	808	O	SER A 191	6.242	5.765	0.276	1.00	15.00	A	O
ATOM	809	CB	SER A 191	3.237	5.914	0.415	1.00	15.00	A	C
ATOM	810	OG	SER A 191	3.041	4.526	0.207	1.00	15.00	A	O
ATOM	811	HN	SER A 191	2.718	5.972	-2.116	1.00	15.00	A	H
ATOM	812	HG	SER A 191	2.160	4.279	0.497	1.00	15.00	A	H
ATOM	813	N	PHE A 192	5.782	5.142	-1.838	1.00	15.00	A	N
ATOM	814	CA	PHE A 192	7.029	4.396	-2.013	1.00	15.00	A	C
ATOM	815	C	PHE A 192	8.076	5.231	-2.748	1.00	15.00	A	C
ATOM	816	O	PHE A 192	9.263	4.903	-2.738	1.00	15.00	A	O
ATOM	817	CB	PHE A 192	6.772	3.114	-2.812	1.00	15.00	A	C
ATOM	818	CG	PHE A 192	5.993	2.062	-2.078	1.00	15.00	A	C
ATOM	819	CD1	PHE A 192	6.647	1.064	-1.378	1.00	15.00	A	C
ATOM	820	CD2	PHE A 192	4.607	2.064	-2.098	1.00	15.00	A	C
ATOM	821	CE1	PHE A 192	5.936	0.086	-0.709	1.00	15.00	A	C
ATOM	822	CE2	PHE A 192	3.888	1.090	-1.430	1.00	15.00	A	C
ATOM	823	CZ	PHE A 192	4.554	0.099	-0.735	1.00	15.00	A	C
ATOM	824	HN	PHE A 192	5.142	5.181	-2.580	1.00	15.00	A	H
ATOM	825	N	VAL A 193	7.631	6.314	-3.377	1.00	15.00	A	N
ATOM	826	CA	VAL A 193	8.523	7.182	-4.144	1.00	15.00	A	C
ATOM	827	C	VAL A 193	9.150	8.280	-3.282	1.00	15.00	A	C
ATOM	828	O	VAL A 193	10.238	8.773	-3.587	1.00	15.00	A	O
ATOM	829	CB	VAL A 193	7.777	7.831	-5.333	1.00	15.00	A	C
ATOM	830	CG1	VAL A 193	8.756	8.458	-6.315	1.00	15.00	A	C
ATOM	831	CG2	VAL A 193	6.891	6.814	-6.038	1.00	15.00	A	C
ATOM	832	HN	VAL A 193	6.680	6.538	-3.323	1.00	15.00	A	H
ATOM	833	N	SER A 194	8.474	8.648	-2.197	1.00	15.00	A	N
ATOM	834	CA	SER A 194	8.959	9.704	-1.309	1.00	15.00	A	C
ATOM	835	C	SER A 194	10.021	9.216	-0.318	1.00	15.00	A	C
ATOM	836	O	SER A 194	10.377	9.937	0.615	1.00	15.00	A	O
ATOM	837	CB	SER A 194	7.791	10.337	-0.552	1.00	15.00	A	C
ATOM	838	OG	SER A 194	6.788	10.786	-1.446	1.00	15.00	A	O
ATOM	839	HN	SER A 194	7.627	8.203	-1.988	1.00	15.00	A	H
ATOM	840	HG	SER A 194	7.200	11.197	-2.209	1.00	15.00	A	H
TER										
ATOM	841	CAK	UNK B 1	15.819	-2.001	2.889	1.00	15.00	B	C
ATOM	842	CAL	UNK B 1	16.479	0.012	2.061	1.00	15.00	B	C
ATOM	843	CAM	UNK B 1	16.983	-2.168	2.149	1.00	15.00	B	C

ATOM	844	CAN	UNK	B	1	16.888	1.369	2.637	1.00	15.00	B	C
ATOM	845	CAO	UNK	B	1	14.030	1.622	3.249	1.00	15.00	B	C
ATOM	846	CAP	UNK	B	1	17.587	1.426	3.839	1.00	15.00	B	C
ATOM	847	CAQ	UNK	B	1	17.751	-0.458	-1.409	1.00	15.00	B	C
ATOM	848	CAR	UNK	B	1	17.497	-3.400	1.760	1.00	15.00	B	C
ATOM	849	CAS	UNK	B	1	18.617	-3.457	0.939	1.00	15.00	B	C
ATOM	850	CAT	UNK	B	1	18.740	-0.167	-2.341	1.00	15.00	B	C
ATOM	851	CAU	UNK	B	1	16.582	2.542	1.957	1.00	15.00	B	C
ATOM	852	CAV	UNK	B	1	17.164	-1.718	-1.387	1.00	15.00	B	C
ATOM	853	CAW	UNK	B	1	16.885	-4.574	2.184	1.00	15.00	B	C
ATOM	854	CAX	UNK	B	1	17.676	3.827	3.676	1.00	15.00	B	C
ATOM	855	CAY	UNK	B	1	16.976	3.771	2.476	1.00	15.00	B	C
ATOM	856	CAZ	UNK	B	1	14.343	2.574	4.212	1.00	15.00	B	C
ATOM	857	NAH	UNK	B	1	15.486	-0.715	2.881	1.00	15.00	B	N
ATOM	858	NAI	UNK	B	1	17.446	-1.166	1.899	1.00	15.00	B	N
ATOM	859	NAJ	UNK	B	1	16.041	0.166	0.666	1.00	15.00	B	N
ATOM	860	OAC	UNK	B	1	15.202	-2.896	3.463	1.00	15.00	B	O
ATOM	861	OAD	UNK	B	1	16.760	1.972	-0.996	1.00	15.00	B	O
ATOM	862	OAE	UNK	B	1	12.948	-0.797	3.138	1.00	15.00	B	O
ATOM	863	OAF	UNK	B	1	18.413	1.140	0.603	1.00	15.00	B	O
ATOM	864	OAG	UNK	B	1	14.304	-0.260	5.101	1.00	15.00	B	O
ATOM	865	SAA	UNK	B	1	17.246	0.760	-0.259	1.00	15.00	B	S
ATOM	866	SAB	UNK	B	1	14.176	-0.082	3.616	1.00	15.00	B	S
ATOM	867	CBA	UNK	B	1	17.980	2.654	4.359	1.00	15.00	B	C
ATOM	868	CBB	UNK	B	1	18.513	-5.863	0.964	1.00	15.00	B	C
ATOM	869	CBC	UNK	B	1	13.583	2.023	1.996	1.00	15.00	B	C
ATOM	870	CBD	UNK	B	1	19.125	-4.688	0.541	1.00	15.00	B	C
ATOM	871	CBE	UNK	B	1	17.393	-5.806	1.785	1.00	15.00	B	C
ATOM	872	CBF	UNK	B	1	18.555	-2.395	-3.232	1.00	15.00	B	C
ATOM	873	CBG	UNK	B	1	19.143	-1.136	-3.253	1.00	15.00	B	C
ATOM	874	CBH	UNK	B	1	13.449	3.375	1.703	1.00	15.00	B	C
ATOM	875	CBI	UNK	B	1	14.210	3.927	3.920	1.00	15.00	B	C
ATOM	876	CBJ	UNK	B	1	13.766	4.327	2.665	1.00	15.00	B	C
ATOM	877	CBK	UNK	B	1	17.566	-2.688	-2.300	1.00	15.00	B	C
ATOM	878	HAA	UNK	B	1	17.812	-0.980	0.877	1.00	15.00	B	H
ATOM	879	HAB	UNK	B	1	15.253	0.779	0.620	1.00	15.00	B	H

END

Ramachandran Plot

yog2



Plot statistics

Residues in most favoured regions [A,B,L]	77	93.9%
Residues in additional allowed regions [a,b,l,p]	4	4.9%
Residues in generously allowed regions [~a,~b,~l,~p]	0	0.0%
Residues in disallowed regions	1	1.2%

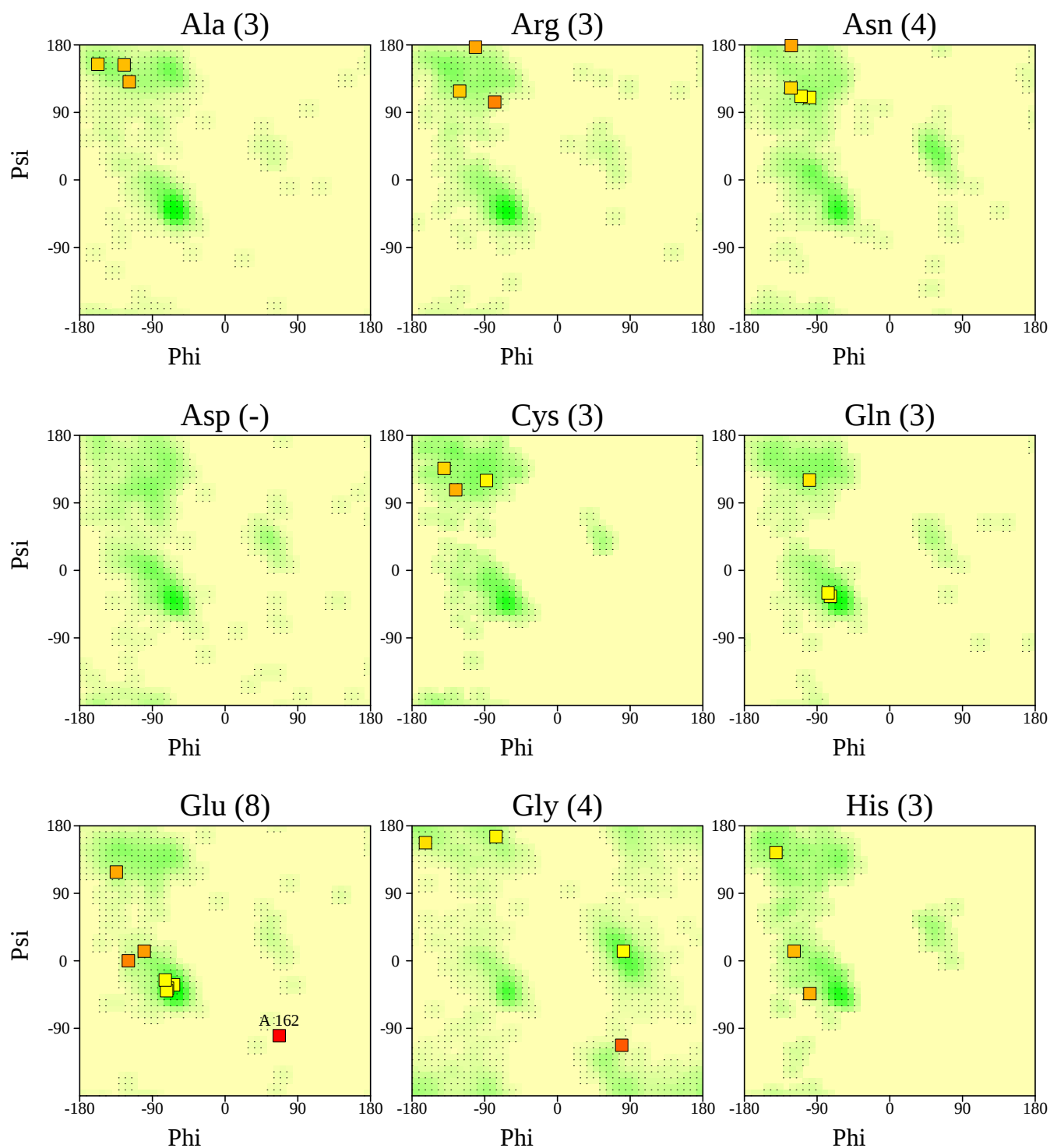
Number of non-glycine and non-proline residues	82	100.0%
Number of end-residues (excl. Gly and Pro)	3	
Number of glycine residues (shown as triangles)	4	
Number of proline residues	1	

Total number of residues	90	

Based on an analysis of 118 structures of resolution of at least 2.0 Angstroms and R-factor no greater than 20%, a good quality model would be expected to have over 90% in the most favoured regions.

Ramachandran plots for all residue types

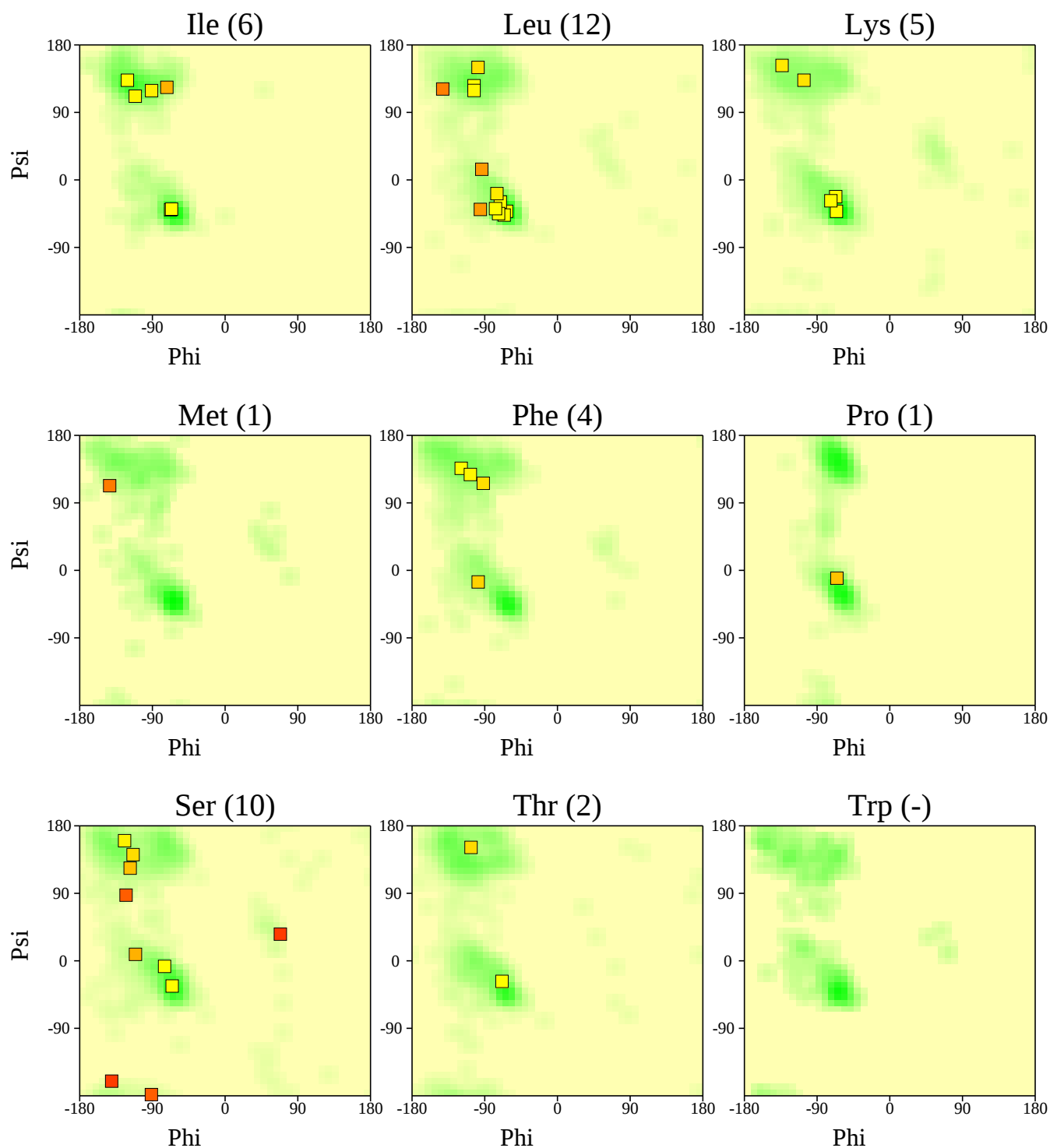
yog2



Numbers of residues are shown in brackets. Those in unfavourable conformations (score < -3.00) are labelled. Shading shows favourable conformations as obtained from an analysis of 163 structures at resolution 2.0Å or better.

Ramachandran plots for all residue types

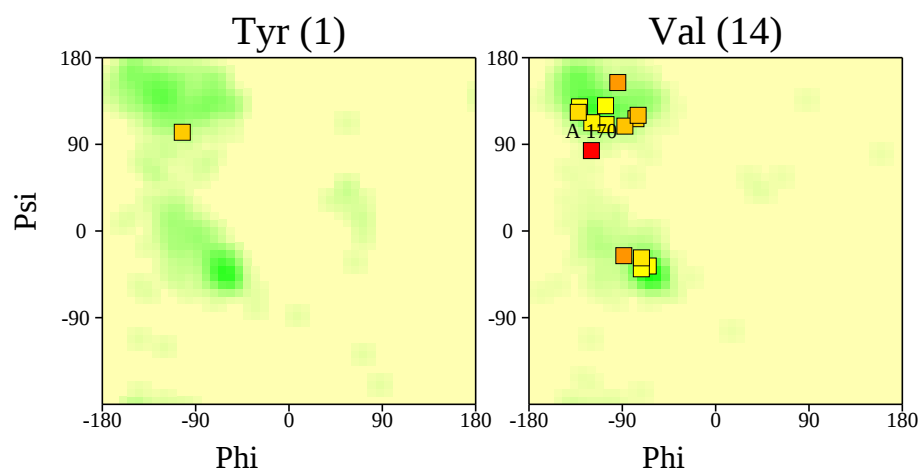
yog2



Numbers of residues are shown in brackets. Those in unfavourable conformations (score < -3.00) are labelled. Shading shows favourable conformations as obtained from an analysis of 163 structures at resolution 2.0Å or better.

Ramachandran plots for all residue types

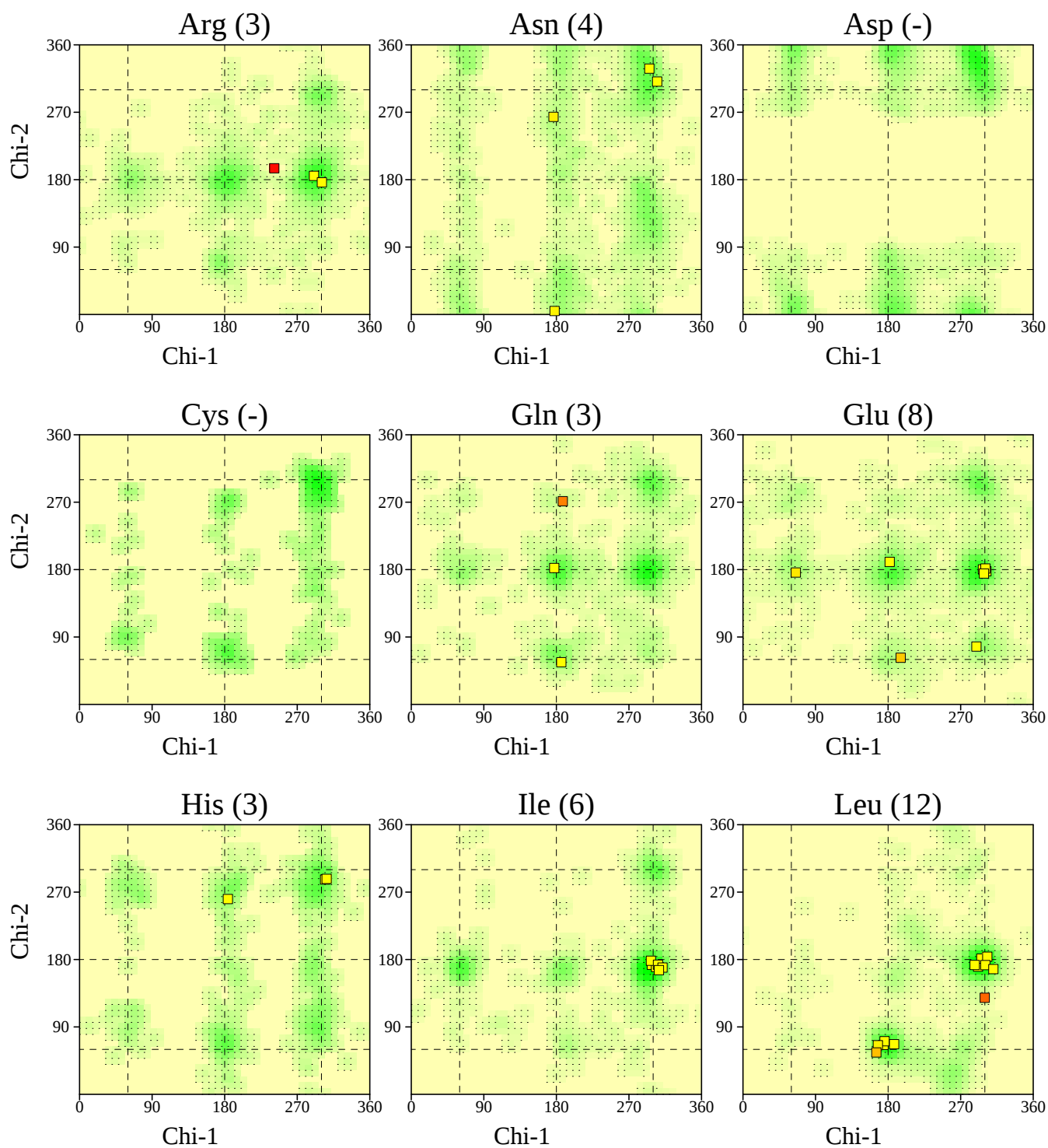
yog2



Numbers of residues are shown in brackets. Those in unfavourable conformations (score < -3.00) are labelled. Shading shows favourable conformations as obtained from an analysis of 163 structures at resolution 2.0Å or better.

Chi1-Chi2 plots

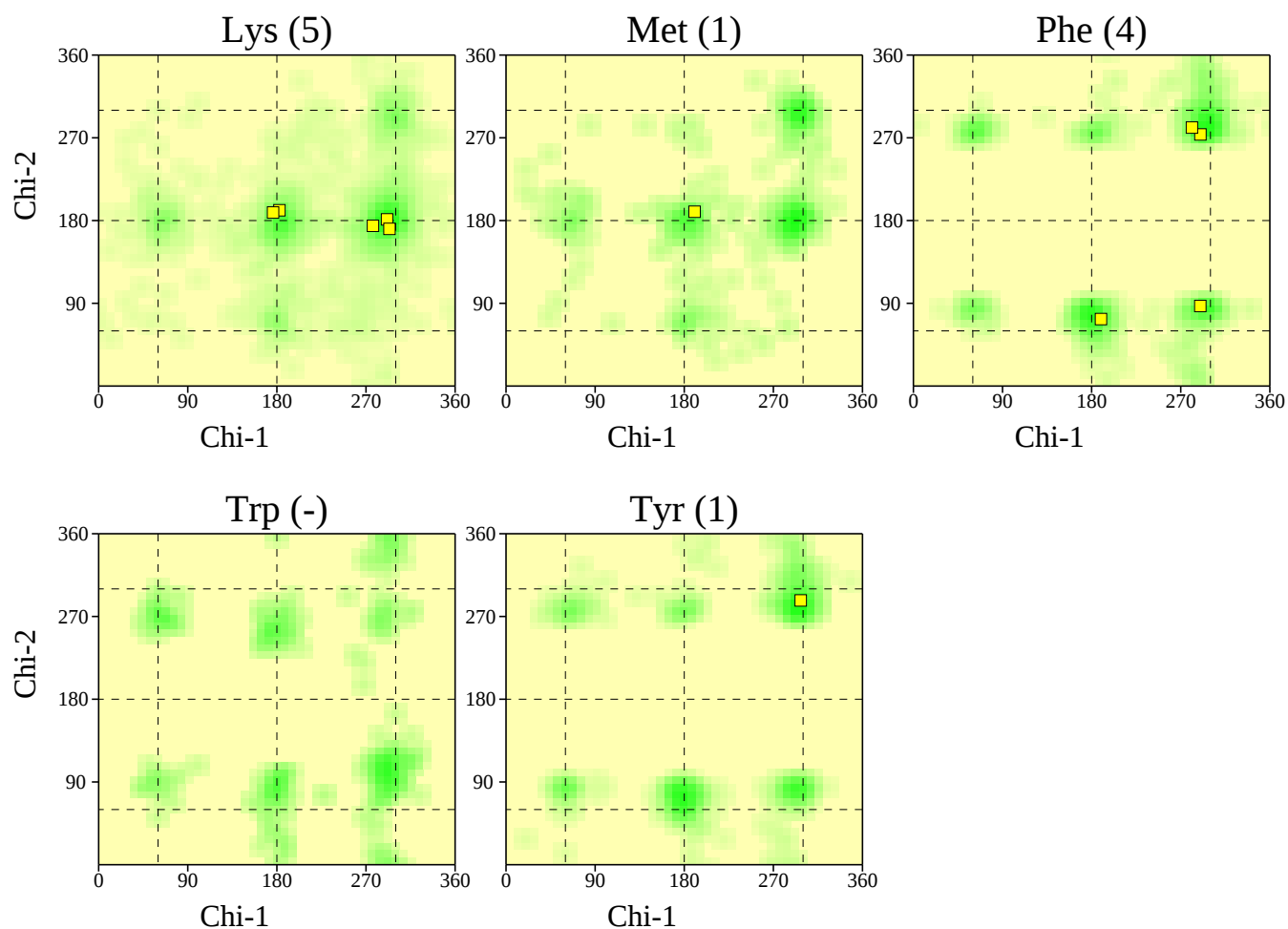
yog2



Numbers of residues are shown in brackets. Those in unfavourable conformations (score < -3.00) are labelled. Shading shows favourable conformations as obtained from an analysis of 163 structures at resolution 2.0Å or better.

Chi1-Chi2 plots

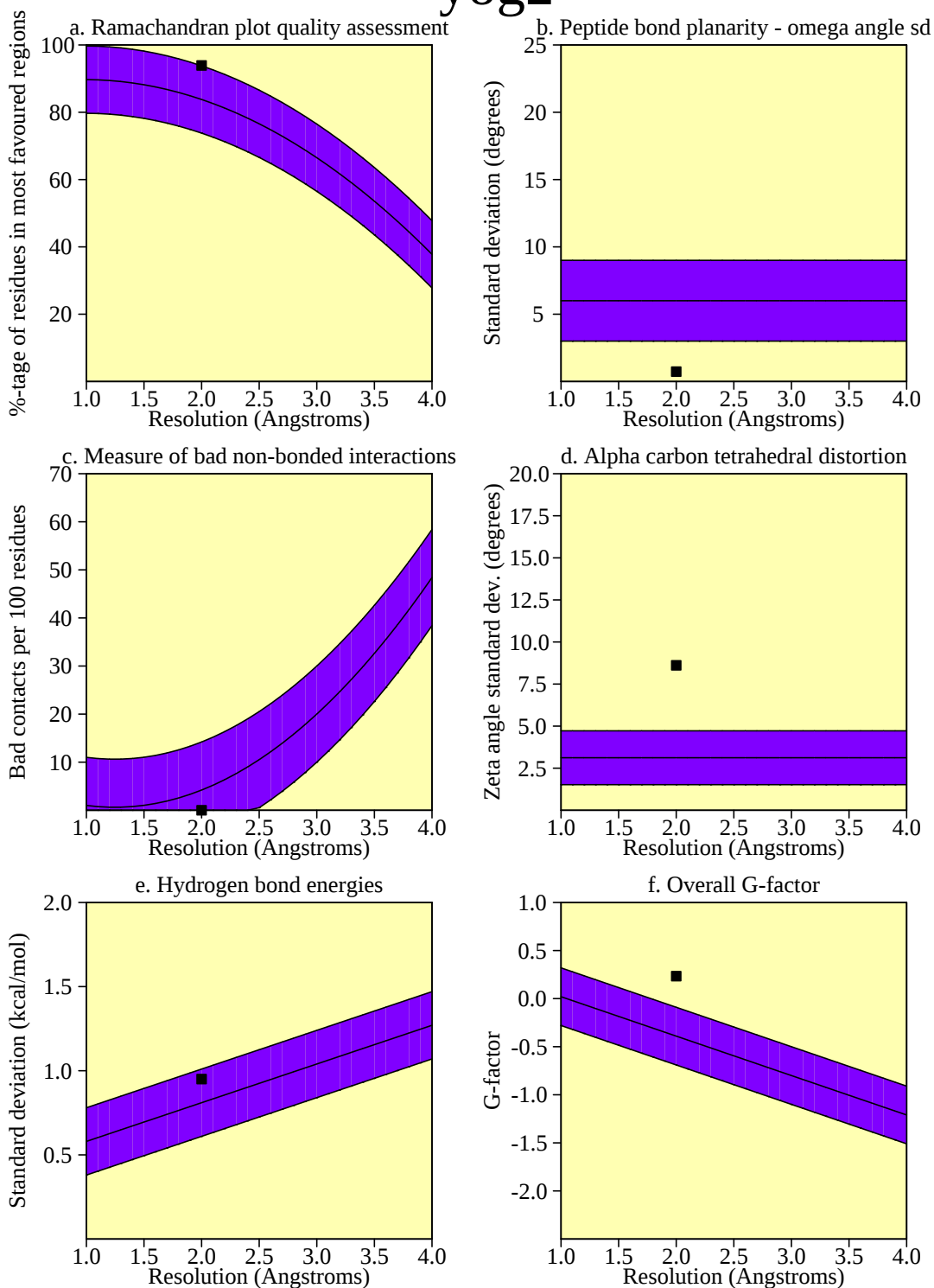
yog2



Numbers of residues are shown in brackets. Those in unfavourable conformations (score < -3.00) are labelled. Shading shows favourable conformations as obtained from an analysis of 163 structures at resolution 2.0Å or better.

Main-chain parameters

yog2

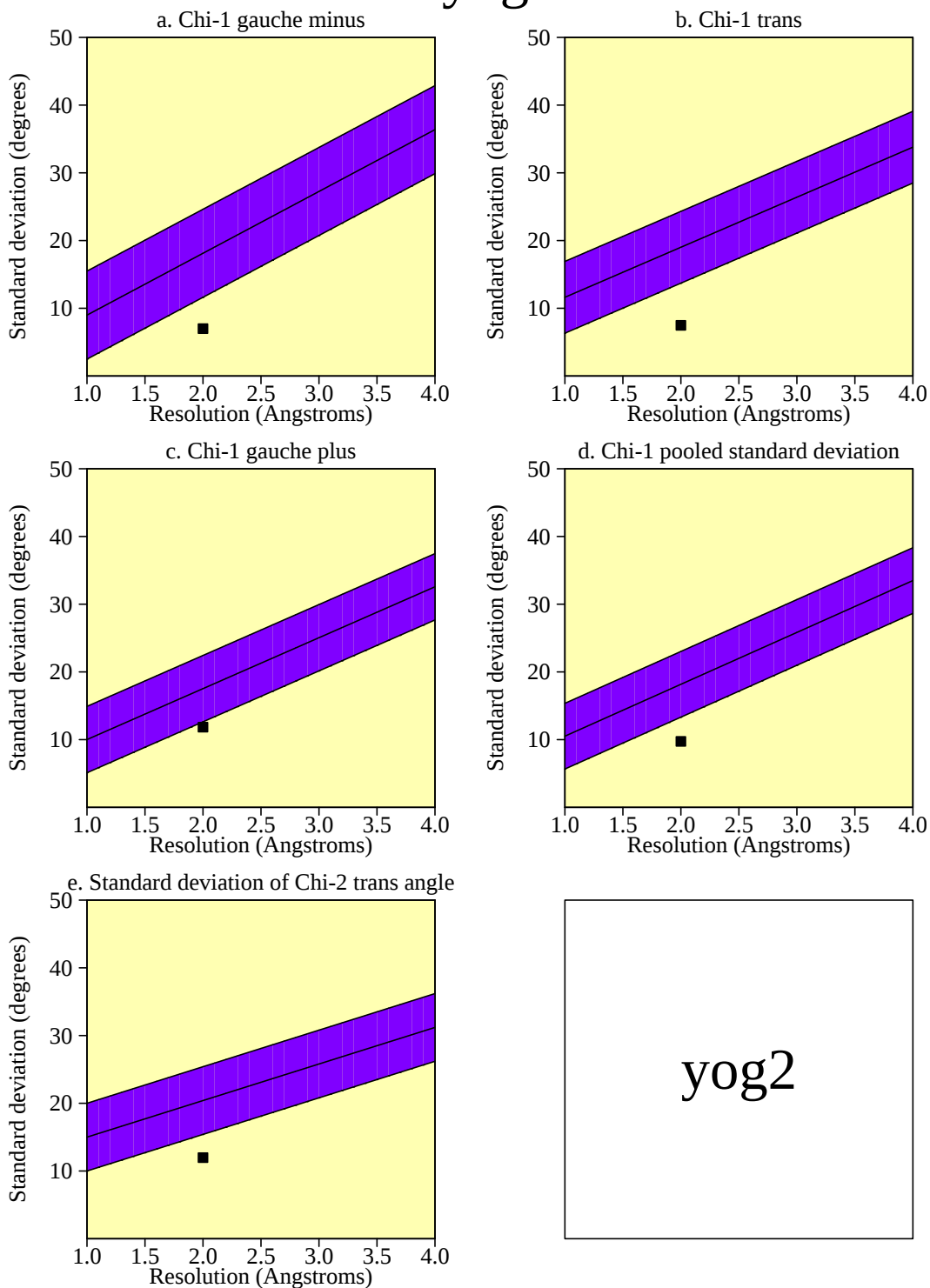


Plot statistics

Stereochemical parameter	No. of data pts	Parameter value	Comparison values Typical value	Band width	No. of band widths from mean	
a. %-tage residues in A, B, L	82	93.9	83.8	10.0	1.0	BETTER
b. Omega angle st dev	88	0.7	6.0	3.0	-1.8	BETTER
c. Bad contacts / 100 residues	0	0.0	4.2	10.0	-0.4	Inside
d. Zeta angle st dev	85	8.6	3.1	1.6	3.4	WORSE
e. H-bond energy st dev	66	1.0	0.8	0.2	0.7	Inside
f. Overall G-factor	90	0.2	-0.4	0.3	2.1	BETTER

Side-chain parameters

yog2



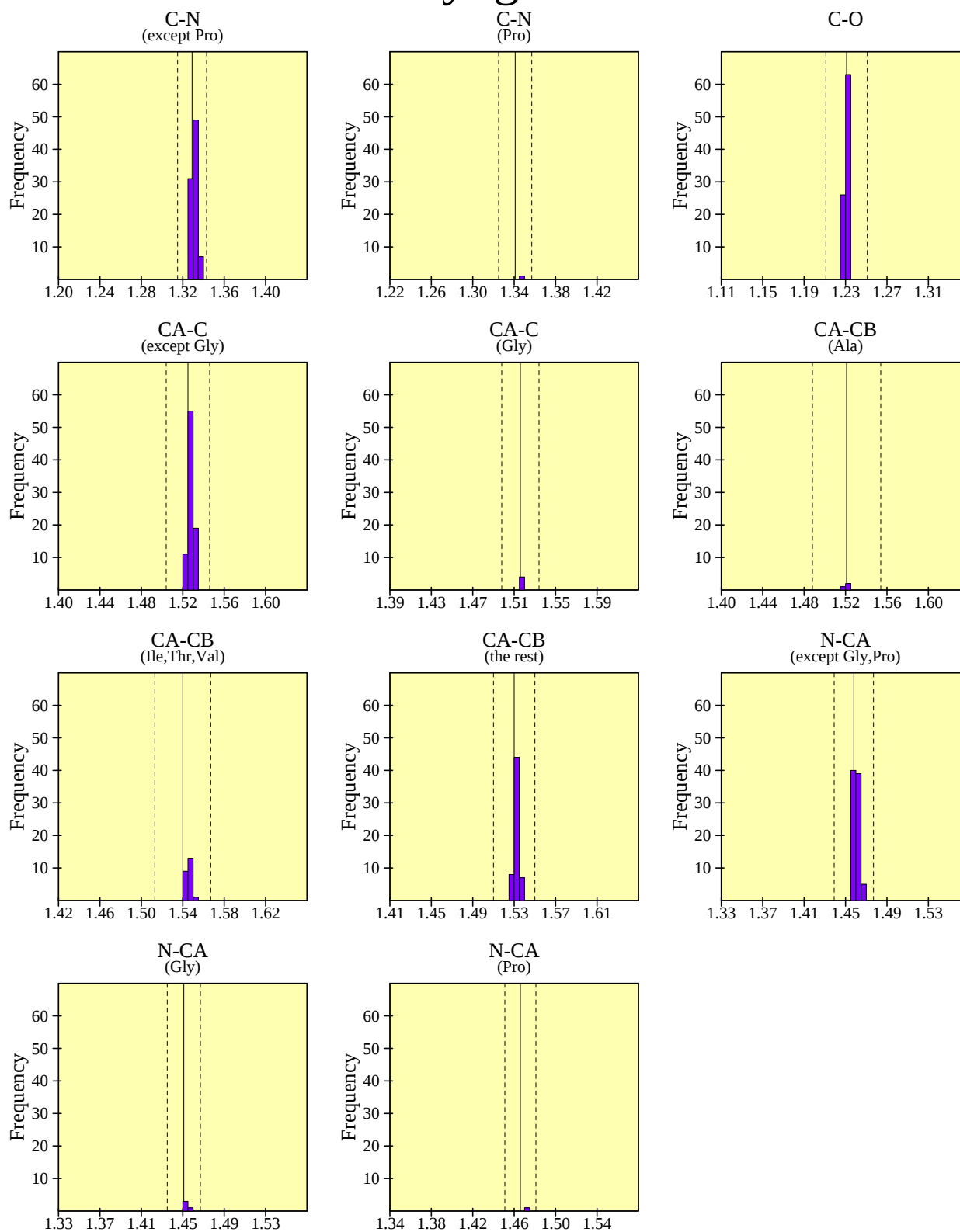
yog2

Plot statistics

Stereochemical parameter	No. of data pts	Parameter value	Comparison values		No. of band widths from mean	
			Typical value	Band width		
a. Chi-1 gauche minus st dev	9	7.0	18.1	6.5	-1.7	BETTER
b. Chi-1 trans st dev	34	7.5	19.0	5.3	-2.2	BETTER
c. Chi-1 gauche plus st dev	38	11.8	17.5	4.9	-1.2	BETTER
d. Chi-1 pooled st dev	81	9.7	18.2	4.8	-1.7	BETTER
e. Chi-2 trans st dev	29	12.0	20.4	5.0	-1.7	BETTER

Main-chain bond lengths

yog2



Black bars > 2.0 st. devs. from mean.

Solid and dashed lines represent the mean and standard deviation values as per Engh & Huber small-molecule data.

MUTE_ACT_Stomidazolone (b form)

ATOM	1	N	VAL A 106	14.501	5.411	-11.175	1.00	15.00	A	N
ATOM	2	HN	VAL A 106	15.461	5.604	-11.143	1.00	15.00	A	H
ATOM	3	CA	VAL A 106	14.048	4.029	-11.054	1.00	15.00	A	C
ATOM	4	CB	VAL A 106	15.166	3.111	-10.513	1.00	15.00	A	C
ATOM	5	CG1	VAL A 106	14.720	1.656	-10.521	1.00	15.00	A	C
ATOM	6	CG2	VAL A 106	16.443	3.284	-11.322	1.00	15.00	A	C
ATOM	7	C	VAL A 106	12.827	3.934	-10.139	1.00	15.00	A	C
ATOM	8	O	VAL A 106	12.924	4.155	-8.930	1.00	15.00	A	O
ATOM	9	N	GLY A 107	11.679	3.602	-10.725	1.00	15.00	A	N
ATOM	10	HN	GLY A 107	11.666	3.428	-11.689	1.00	15.00	A	H
ATOM	11	CA	GLY A 107	10.455	3.486	-9.956	1.00	15.00	A	C
ATOM	12	C	GLY A 107	9.387	2.690	-10.680	1.00	15.00	A	C
ATOM	13	O	GLY A 107	9.416	2.571	-11.905	1.00	15.00	A	O
ATOM	14	N	ALAA 108	8.440	2.149	-9.920	1.00	15.00	A	N
ATOM	15	HN	ALAA 108	8.472	2.287	-8.950	1.00	15.00	A	H
ATOM	16	CA	ALAA 108	7.356	1.357	-10.488	1.00	15.00	A	C
ATOM	17	CB	ALAA 108	7.463	-0.088	-10.031	1.00	15.00	A	C
ATOM	18	C	ALAA 108	5.999	1.932	-10.100	1.00	15.00	A	C
ATOM	19	O	ALAA 108	5.852	2.534	-9.036	1.00	15.00	A	O
ATOM	20	N	CYS A 109	5.011	1.742	-10.968	1.00	15.00	A	N
ATOM	21	HN	CYS A 109	5.192	1.257	-11.800	1.00	15.00	A	H
ATOM	22	CA	CYS A 109	3.665	2.240	-10.713	1.00	15.00	A	C
ATOM	23	CB	CYS A 109	3.431	3.577	-11.424	1.00	15.00	A	C
ATOM	24	SG	CYS A 109	3.658	3.526	-13.218	1.00	15.00	A	S
ATOM	25	HG	CYS A 109	4.957	3.589	-13.467	1.00	15.00	A	H
ATOM	26	C	CYS A 109	2.602	1.221	-11.121	1.00	15.00	A	C
ATOM	27	O	CYS A 109	2.688	0.607	-12.184	1.00	15.00	A	O
ATOM	28	N	CYS A 110	1.605	1.048	-10.259	1.00	15.00	A	N
ATOM	29	HN	CYS A 110	1.605	1.562	-9.425	1.00	15.00	A	H
ATOM	30	CA	CYS A 110	0.514	0.119	-10.515	1.00	15.00	A	C
ATOM	31	CB	CYS A 110	0.585	-1.075	-9.562	1.00	15.00	A	C
ATOM	32	SG	CYS A 110	-0.697	-2.317	-9.840	1.00	15.00	A	S
ATOM	33	HG	CYS A 110	-1.842	-1.681	-10.037	1.00	15.00	A	H
ATOM	34	C	CYS A 110	-0.827	0.830	-10.366	1.00	15.00	A	C
ATOM	35	O	CYS A 110	-1.238	1.176	-9.259	1.00	15.00	A	O
ATOM	36	N	ASN A 111	-1.499	1.050	-11.490	1.00	15.00	A	N
ATOM	37	HN	ASN A 111	-1.122	0.742	-12.340	1.00	15.00	A	H
ATOM	38	CA	ASN A 111	-2.786	1.734	-11.490	1.00	15.00	A	C
ATOM	39	CB	ASN A 111	-2.850	2.746	-12.637	1.00	15.00	A	C
ATOM	40	CG	ASN A 111	-1.824	3.856	-12.499	1.00	15.00	A	C
ATOM	41	OD1	ASN A 111	-1.484	4.267	-11.392	1.00	15.00	A	O
ATOM	42	ND2	ASN A 111	-1.325	4.347	-13.628	1.00	15.00	A	N
ATOM	43	HD21	ASN A 111	-1.641	3.971	-14.475	1.00	15.00	A	H
ATOM	44	HD22	ASN A 111	-0.660	5.065	-13.567	1.00	15.00	A	H
ATOM	45	C	ASN A 111	-3.948	0.752	-11.595	1.00	15.00	A	C

ATOM	46	O	ASNA 111	-4.148	0.117	-12.632	1.00	15.00	A	O
ATOM	47	N	SERA 112	-4.709	0.632	-10.512	1.00	15.00	A	N
ATOM	48	HN	SERA 112	-4.489	1.158	-9.714	1.00	15.00	A	H
ATOM	49	CA	SERA 112	-5.861	-0.261	-10.476	1.00	15.00	A	C
ATOM	50	CB	SERA 112	-5.619	-1.401	-9.479	1.00	15.00	A	C
ATOM	51	OG	SERA 112	-5.804	-0.965	-8.145	1.00	15.00	A	O
ATOM	52	HG	SERA 112	-6.257	-0.118	-8.146	1.00	15.00	A	H
ATOM	53	C	SERA 112	-7.120	0.521	-10.096	1.00	15.00	A	C
ATOM	54	O	SERA 112	-7.023	1.632	-9.570	1.00	15.00	A	O
ATOM	55	N	PRO A 113	-8.320	-0.040	-10.361	1.00	15.00	A	N
ATOM	56	CA	PRO A 113	-9.596	0.619	-10.036	1.00	15.00	A	C
ATOM	57	CB	PRO A 113	-10.657	-0.342	-10.593	1.00	15.00	A	C
ATOM	58	CG	PRO A 113	-9.925	-1.212	-11.557	1.00	15.00	A	C
ATOM	59	CD	PRO A 113	-8.532	-1.342	-11.016	1.00	15.00	A	C
ATOM	60	C	PRO A 113	-9.804	0.806	-8.533	1.00	15.00	A	C
ATOM	61	O	PRO A 113	-10.715	1.517	-8.111	1.00	15.00	A	O
ATOM	62	N	HIS A 114	-8.954	0.169	-7.730	1.00	15.00	A	N
ATOM	63	HN	HIS A 114	-8.244	-0.380	-8.123	1.00	15.00	A	H
ATOM	64	CA	HIS A 114	-9.058	0.267	-6.279	1.00	15.00	A	C
ATOM	65	CB	HIS A 114	-8.933	-1.112	-5.623	1.00	15.00	A	C
ATOM	66	CG	HIS A 114	-10.003	-2.078	-6.031	1.00	15.00	A	C
ATOM	67	ND1	HIS A 114	-11.335	-1.789	-5.854	1.00	15.00	A	N
ATOM	68	CD2	HIS A 114	-9.884	-3.300	-6.608	1.00	15.00	A	C
ATOM	69	CE1	HIS A 114	-11.996	-2.831	-6.323	1.00	15.00	A	C
ATOM	70	NE2	HIS A 114	-11.160	-3.769	-6.789	1.00	15.00	A	N
ATOM	71	HE2	HIS A 114	-11.412	-4.631	-7.182	1.00	15.00	A	H
ATOM	72	C	HIS A 114	-8.030	1.231	-5.688	1.00	15.00	A	C
ATOM	73	O	HIS A 114	-8.385	2.115	-4.907	1.00	15.00	A	O
ATOM	74	N	ALAA 115	-6.758	1.067	-6.061	1.00	15.00	A	N
ATOM	75	HN	ALAA 115	-6.529	0.359	-6.697	1.00	15.00	A	H
ATOM	76	CA	ALAA 115	-5.704	1.930	-5.529	1.00	15.00	A	C
ATOM	77	CB	ALAA 115	-5.191	1.378	-4.209	1.00	15.00	A	C
ATOM	78	C	ALAA 115	-4.535	2.133	-6.492	1.00	15.00	A	C
ATOM	79	O	ALAA 115	-4.248	1.288	-7.339	1.00	15.00	A	O
ATOM	80	N	ASNA 116	-3.863	3.272	-6.331	1.00	15.00	A	N
ATOM	81	HN	ASNA 116	-4.166	3.904	-5.644	1.00	15.00	A	H
ATOM	82	CA	ASNA 116	-2.698	3.625	-7.137	1.00	15.00	A	C
ATOM	83	CB	ASNA 116	-2.863	5.050	-7.688	1.00	15.00	A	C
ATOM	84	CG	ASNA 116	-1.676	5.548	-8.499	1.00	15.00	A	C
ATOM	85	OD1	ASNA 116	-0.721	4.814	-8.756	1.00	15.00	A	O
ATOM	86	ND2	ASNA 116	-1.737	6.808	-8.919	1.00	15.00	A	N
ATOM	87	HD21	ASNA 116	-2.532	7.335	-8.687	1.00	15.00	A	H
ATOM	88	HD22	ASNA 116	-0.986	7.161	-9.444	1.00	15.00	A	H
ATOM	89	C	ASNA 116	-1.438	3.528	-6.272	1.00	15.00	A	C
ATOM	90	O	ASNA 116	-1.249	4.309	-5.340	1.00	15.00	A	O
ATOM	91	N	VALA 117	-0.583	2.559	-6.584	1.00	15.00	A	N
ATOM	92	HN	VALA 117	-0.782	1.973	-7.343	1.00	15.00	A	H

ATOM	93	CA	VAL A 117	0.647	2.347	-5.824	1.00	15.00	A	C
ATOM	94	CB	VAL A 117	0.800	0.869	-5.404	1.00	15.00	A	C
ATOM	95	CG1	VAL A 117	1.900	0.716	-4.366	1.00	15.00	A	C
ATOM	96	CG2	VAL A 117	-0.515	0.317	-4.870	1.00	15.00	A	C
ATOM	97	C	VAL A 117	1.883	2.782	-6.615	1.00	15.00	A	C
ATOM	98	O	VAL A 117	2.084	2.361	-7.751	1.00	15.00	A	O
ATOM	99	N	GLU A 118	2.711	3.622	-5.997	1.00	15.00	A	N
ATOM	100	HN	GLU A 118	2.492	3.922	-5.090	1.00	15.00	A	H
ATOM	101	CA	GLU A 118	3.930	4.115	-6.634	1.00	15.00	A	C
ATOM	102	CB	GLU A 118	3.750	5.583	-7.034	1.00	15.00	A	C
ATOM	103	CG	GLU A 118	4.946	6.196	-7.746	1.00	15.00	A	C
ATOM	104	CD	GLU A 118	4.816	7.697	-7.927	1.00	15.00	A	C
ATOM	105	OE1	GLU A 118	5.821	8.339	-8.300	1.00	15.00	A	O
ATOM	106	OE2	GLU A 118	3.712	8.234	-7.692	1.00	15.00	A	O
ATOM	107	C	GLU A 118	5.133	3.974	-5.699	1.00	15.00	A	C
ATOM	108	O	GLU A 118	5.143	4.531	-4.603	1.00	15.00	A	O
ATOM	109	N	ALA A 119	6.146	3.232	-6.140	1.00	15.00	A	N
ATOM	110	HN	ALA A 119	6.087	2.819	-7.027	1.00	15.00	A	H
ATOM	111	CA	ALA A 119	7.347	3.023	-5.334	1.00	15.00	A	C
ATOM	112	CB	ALA A 119	7.495	1.554	-4.968	1.00	15.00	A	C
ATOM	113	C	ALA A 119	8.599	3.524	-6.049	1.00	15.00	A	C
ATOM	114	O	ALA A 119	8.847	3.176	-7.202	1.00	15.00	A	O
ATOM	115	N	LYS A 120	9.386	4.341	-5.354	1.00	15.00	A	N
ATOM	116	HN	LYS A 120	9.134	4.578	-4.437	1.00	15.00	A	H
ATOM	117	CA	LYS A 120	10.617	4.893	-5.917	1.00	15.00	A	C
ATOM	118	CB	LYS A 120	10.425	6.363	-6.299	1.00	15.00	A	C
ATOM	119	CG	LYS A 120	9.717	6.575	-7.627	1.00	15.00	A	C
ATOM	120	CD	LYS A 120	9.444	8.049	-7.880	1.00	15.00	A	C
ATOM	121	CE	LYS A 120	8.902	8.273	-9.282	1.00	15.00	A	C
ATOM	122	NZ	LYS A 120	8.429	9.671	-9.479	1.00	15.00	A	N
ATOM	123	HZ1	LYS A 120	8.168	9.825	-10.474	1.00	15.00	A	H
ATOM	124	HZ2	LYS A 120	9.180	10.343	-9.221	1.00	15.00	A	H
ATOM	125	HZ3	LYS A 120	7.597	9.853	-8.881	1.00	15.00	A	H
ATOM	126	C	LYS A 120	11.777	4.758	-4.938	1.00	15.00	A	C
ATOM	127	O	LYS A 120	11.577	4.739	-3.726	1.00	15.00	A	O
ATOM	128	N	ILE A 121	12.991	4.666	-5.471	1.00	15.00	A	N
ATOM	129	HN	ILE A 121	13.089	4.685	-6.446	1.00	15.00	A	H
ATOM	130	CA	ILE A 121	14.182	4.538	-4.638	1.00	15.00	A	C
ATOM	131	CB	ILE A 121	15.266	3.663	-5.307	1.00	15.00	A	C
ATOM	132	CG1	ILE A 121	14.743	2.239	-5.517	1.00	15.00	A	C
ATOM	133	CG2	ILE A 121	16.541	3.645	-4.470	1.00	15.00	A	C
ATOM	134	CD1	ILE A 121	15.702	1.333	-6.260	1.00	15.00	A	C
ATOM	135	C	ILE A 121	14.770	5.906	-4.299	1.00	15.00	A	C
ATOM	136	O	ILE A 121	15.130	6.678	-5.188	1.00	15.00	A	O
ATOM	137	N	SER A 122	14.856	6.194	-3.005	1.00	15.00	A	N
ATOM	138	HN	SER A 122	14.540	5.538	-2.351	1.00	15.00	A	H
ATOM	139	CA	SER A 122	15.409	7.454	-2.529	1.00	15.00	A	C

ATOM	140	CB	SER A 122	14.323	8.302	-1.861	1.00	15.00	A	C
ATOM	141	OG	SER A 122	14.822	9.575	-1.489	1.00	15.00	A	O
ATOM	142	HG	SER A 122	14.161	10.245	-1.677	1.00	15.00	A	H
ATOM	143	C	SER A 122	16.558	7.187	-1.560	1.00	15.00	A	C
ATOM	144	O	SER A 122	16.354	7.072	-0.349	1.00	15.00	A	O
ATOM	145	N	GLY A 123	17.765	7.073	-2.111	1.00	15.00	A	N
ATOM	146	HN	GLY A 123	17.859	7.177	-3.081	1.00	15.00	A	H
ATOM	147	CA	GLY A 123	18.937	6.799	-1.298	1.00	15.00	A	C
ATOM	148	C	GLY A 123	19.011	5.335	-0.904	1.00	15.00	A	C
ATOM	149	O	GLY A 123	19.164	4.461	-1.759	1.00	15.00	A	O
ATOM	150	N	SER A 124	18.892	5.067	0.392	1.00	15.00	A	N
ATOM	151	HN	SER A 124	18.776	5.806	1.023	1.00	15.00	A	H
ATOM	152	CA	SER A 124	18.927	3.699	0.899	1.00	15.00	A	C
ATOM	153	CB	SER A 124	19.927	3.580	2.052	1.00	15.00	A	C
ATOM	154	OG	SER A 124	21.240	3.892	1.622	1.00	15.00	A	O
ATOM	155	HG	SER A 124	21.848	3.221	1.939	1.00	15.00	A	H
ATOM	156	C	SER A 124	17.538	3.273	1.366	1.00	15.00	A	C
ATOM	157	O	SER A 124	17.367	2.211	1.968	1.00	15.00	A	O
ATOM	158	N	ASN A 125	16.548	4.113	1.074	1.00	15.00	A	N
ATOM	159	HN	ASN A 125	16.753	4.930	0.574	1.00	15.00	A	H
ATOM	160	CA	ASN A 125	15.168	3.853	1.464	1.00	15.00	A	C
ATOM	161	CB	ASN A 125	14.692	4.945	2.428	1.00	15.00	A	C
ATOM	162	CG	ASN A 125	15.605	5.110	3.629	1.00	15.00	A	C
ATOM	163	OD1	ASN A 125	15.945	4.138	4.304	1.00	15.00	A	O
ATOM	164	ND2	ASN A 125	16.021	6.346	3.891	1.00	15.00	A	N
ATOM	165	HD21	ASN A 125	15.721	7.070	3.303	1.00	15.00	A	H
ATOM	166	HD22	ASN A 125	16.612	6.482	4.662	1.00	15.00	A	H
ATOM	167	C	ASN A 125	14.256	3.812	0.240	1.00	15.00	A	C
ATOM	168	O	ASN A 125	14.706	4.024	-0.886	1.00	15.00	A	O
ATOM	169	N	VAL A 126	12.974	3.530	0.469	1.00	15.00	A	N
ATOM	170	HN	VAL A 126	12.682	3.361	1.388	1.00	15.00	A	H
ATOM	171	CA	VAL A 126	11.993	3.465	-0.615	1.00	15.00	A	C
ATOM	172	CB	VAL A 126	11.566	2.012	-0.931	1.00	15.00	A	C
ATOM	173	CG1	VAL A 126	10.448	1.987	-1.965	1.00	15.00	A	C
ATOM	174	CG2	VAL A 126	12.752	1.198	-1.424	1.00	15.00	A	C
ATOM	175	C	VAL A 126	10.752	4.296	-0.288	1.00	15.00	A	C
ATOM	176	O	VAL A 126	10.094	4.078	0.731	1.00	15.00	A	O
ATOM	177	N	VAL A 127	10.444	5.247	-1.163	1.00	15.00	A	N
ATOM	178	HN	VAL A 127	11.013	5.369	-1.952	1.00	15.00	A	H
ATOM	179	CA	VAL A 127	9.279	6.109	-0.989	1.00	15.00	A	C
ATOM	180	CB	VAL A 127	9.500	7.495	-1.632	1.00	15.00	A	C
ATOM	181	CG1	VAL A 127	8.271	8.375	-1.458	1.00	15.00	A	C
ATOM	182	CG2	VAL A 127	10.726	8.170	-1.039	1.00	15.00	A	C
ATOM	183	C	VAL A 127	8.038	5.460	-1.600	1.00	15.00	A	C
ATOM	184	O	VAL A 127	7.915	5.354	-2.821	1.00	15.00	A	O
ATOM	185	N	LEU A 128	7.126	5.023	-0.740	1.00	15.00	A	N
ATOM	186	HN	LEU A 128	7.285	5.135	0.221	1.00	15.00	A	H

ATOM	187	CA	LEU A 128	5.896	4.380	-1.184	1.00	15.00	A	C
ATOM	188	CB	LEU A 128	5.642	3.105	-0.374	1.00	15.00	A	C
ATOM	189	CG	LEU A 128	4.466	2.235	-0.828	1.00	15.00	A	C
ATOM	190	CD1	LEU A 128	4.737	1.638	-2.200	1.00	15.00	A	C
ATOM	191	CD2	LEU A 128	4.180	1.139	0.189	1.00	15.00	A	C
ATOM	192	C	LEU A 128	4.704	5.331	-1.067	1.00	15.00	A	C
ATOM	193	O	LEU A 128	4.438	5.883	-0.002	1.00	15.00	A	O
ATOM	194	N	ARG A 129	3.999	5.523	-2.176	1.00	15.00	A	N
ATOM	195	HN	ARG A 129	4.271	5.062	-2.998	1.00	15.00	A	H
ATOM	196	CA	ARG A 129	2.828	6.397	-2.208	1.00	15.00	A	C
ATOM	197	CB	ARG A 129	3.051	7.560	-3.181	1.00	15.00	A	C
ATOM	198	CG	ARG A 129	4.244	8.444	-2.849	1.00	15.00	A	C
ATOM	199	CD	ARG A 129	4.433	9.531	-3.897	1.00	15.00	A	C
ATOM	200	NE	ARG A 129	5.572	10.398	-3.593	1.00	15.00	A	N
ATOM	201	HE	ARG A 129	6.311	10.009	-3.079	1.00	15.00	A	H
ATOM	202	CZ	ARG A 129	5.666	11.668	-3.981	1.00	15.00	A	C
ATOM	203	NH1	ARG A 129	4.689	12.228	-4.683	1.00	15.00	A	N
ATOM	204	HH11	ARG A 129	4.766	13.221	-4.982	1.00	15.00	A	H
ATOM	205	HH12	ARG A 129	3.848	11.671	-4.938	1.00	15.00	A	H
ATOM	206	NH2	ARG A 129	6.735	12.384	-3.658	1.00	15.00	A	N
ATOM	207	HH21	ARG A 129	6.808	13.377	-3.958	1.00	15.00	A	H
ATOM	208	HH22	ARG A 129	7.502	11.950	-3.105	1.00	15.00	A	H
ATOM	209	C	ARG A 129	1.596	5.600	-2.624	1.00	15.00	A	C
ATOM	210	O	ARG A 129	1.556	5.040	-3.718	1.00	15.00	A	O
ATOM	211	N	VAL A 130	0.593	5.546	-1.750	1.00	15.00	A	N
ATOM	212	HN	VAL A 130	0.674	6.020	-0.895	1.00	15.00	A	H
ATOM	213	CA	VAL A 130	-0.627	4.794	-2.040	1.00	15.00	A	C
ATOM	214	CB	VAL A 130	-0.823	3.620	-1.055	1.00	15.00	A	C
ATOM	215	CG1	VAL A 130	-2.010	2.766	-1.471	1.00	15.00	A	C
ATOM	216	CG2	VAL A 130	0.437	2.773	-0.958	1.00	15.00	A	C
ATOM	217	C	VAL A 130	-1.874	5.681	-2.015	1.00	15.00	A	C
ATOM	218	O	VAL A 130	-2.257	6.202	-0.970	1.00	15.00	A	O
ATOM	219	N	VAL A 131	-2.506	5.839	-3.174	1.00	15.00	A	N
ATOM	220	HN	VAL A 131	-2.149	5.401	-3.975	1.00	15.00	A	H
ATOM	221	CA	VAL A 131	-3.718	6.648	-3.285	1.00	15.00	A	C
ATOM	222	CB	VAL A 131	-3.625	7.667	-4.442	1.00	15.00	A	C
ATOM	223	CG1	VAL A 131	-4.844	8.579	-4.456	1.00	15.00	A	C
ATOM	224	CG2	VAL A 131	-2.345	8.484	-4.340	1.00	15.00	A	C
ATOM	225	C	VAL A 131	-4.935	5.751	-3.507	1.00	15.00	A	C
ATOM	226	O	VAL A 131	-5.088	5.150	-4.569	1.00	15.00	A	O
ATOM	227	N	SER A 132	-5.799	5.670	-2.502	1.00	15.00	A	N
ATOM	228	HN	SER A 132	-5.633	6.185	-1.685	1.00	15.00	A	H
ATOM	229	CA	SER A 132	-6.993	4.833	-2.588	1.00	15.00	A	C
ATOM	230	CB	SER A 132	-6.722	3.479	-1.932	1.00	15.00	A	C
ATOM	231	OG	SER A 132	-6.252	3.642	-0.605	1.00	15.00	A	O
ATOM	232	HG	SER A 132	-6.076	4.572	-0.440	1.00	15.00	A	H
ATOM	233	C	SER A 132	-8.186	5.500	-1.914	1.00	15.00	A	C

ATOM	234	O	SER A 132	-8.186	6.707	-1.691	1.00	15.00	A	O
ATOM	235	N	ARG A 133	-9.208	4.705	-1.605	1.00	15.00	A	N
ATOM	236	HN	ARG A 133	-9.155	3.752	-1.830	1.00	15.00	A	H
ATOM	237	CA	ARG A 133	-10.404	5.210	-0.942	1.00	15.00	A	C
ATOM	238	CB	ARG A 133	-11.666	4.606	-1.564	1.00	15.00	A	C
ATOM	239	CG	ARG A 133	-11.942	5.070	-2.988	1.00	15.00	A	C
ATOM	240	CD	ARG A 133	-13.221	4.453	-3.529	1.00	15.00	A	C
ATOM	241	NE	ARG A 133	-13.561	4.952	-4.860	1.00	15.00	A	N
ATOM	242	HE	ARG A 133	-12.826	5.269	-5.426	1.00	15.00	A	H
ATOM	243	CZ	ARG A 133	-14.804	5.000	-5.338	1.00	15.00	A	C
ATOM	244	NH1	ARG A 133	-15.823	4.578	-4.598	1.00	15.00	A	N
ATOM	245	HH11	ARG A 133	-16.791	4.616	-4.976	1.00	15.00	A	H
ATOM	246	HH12	ARG A 133	-15.653	4.210	-3.640	1.00	15.00	A	H
ATOM	247	NH2	ARG A 133	-15.028	5.466	-6.560	1.00	15.00	A	N
ATOM	248	HH21	ARG A 133	-15.999	5.503	-6.933	1.00	15.00	A	H
ATOM	249	HH22	ARG A 133	-14.234	5.796	-7.145	1.00	15.00	A	H
ATOM	250	C	ARG A 133	-10.348	4.915	0.557	1.00	15.00	A	C
ATOM	251	O	ARG A 133	-9.348	4.394	1.054	1.00	15.00	A	O
ATOM	252	N	ARG A 134	-11.417	5.249	1.274	1.00	15.00	A	N
ATOM	253	HN	ARG A 134	-12.187	5.658	0.826	1.00	15.00	A	H
ATOM	254	CA	ARG A 134	-11.469	5.020	2.716	1.00	15.00	A	C
ATOM	255	CB	ARG A 134	-12.400	6.025	3.399	1.00	15.00	A	C
ATOM	256	CG	ARG A 134	-12.002	7.475	3.179	1.00	15.00	A	C
ATOM	257	CD	ARG A 134	-12.677	8.401	4.175	1.00	15.00	A	C
ATOM	258	NE	ARG A 134	-12.232	9.784	4.011	1.00	15.00	A	N
ATOM	259	HE	ARG A 134	-12.063	10.098	3.098	1.00	15.00	A	H
ATOM	260	CZ	ARG A 134	-12.043	10.630	5.022	1.00	15.00	A	C
ATOM	261	NH1	ARG A 134	-12.262	10.242	6.272	1.00	15.00	A	N
ATOM	262	HH11	ARG A 134	-12.580	9.271	6.467	1.00	15.00	A	H
ATOM	263	HH12	ARG A 134	-12.113	10.907	7.057	1.00	15.00	A	H
ATOM	264	NH2	ARG A 134	-11.636	11.869	4.780	1.00	15.00	A	N
ATOM	265	HH21	ARG A 134	-11.488	12.532	5.569	1.00	15.00	A	H
ATOM	266	HH22	ARG A 134	-11.462	12.179	3.803	1.00	15.00	A	H
ATOM	267	C	ARG A 134	-11.885	3.590	3.047	1.00	15.00	A	C
ATOM	268	O	ARG A 134	-13.067	3.249	2.995	1.00	15.00	A	O
ATOM	269	N	ILE A 135	-10.899	2.759	3.382	1.00	15.00	A	N
ATOM	270	HN	ILE A 135	-9.979	3.094	3.395	1.00	15.00	A	H
ATOM	271	CA	ILE A 135	-11.148	1.362	3.728	1.00	15.00	A	C
ATOM	272	CB	ILE A 135	-10.355	0.400	2.815	1.00	15.00	A	C
ATOM	273	CG1	ILE A 135	-10.554	0.775	1.342	1.00	15.00	A	C
ATOM	274	CG2	ILE A 135	-10.774	-1.044	3.063	1.00	15.00	A	C
ATOM	275	CD1	ILE A 135	-9.742	-0.059	0.375	1.00	15.00	A	C
ATOM	276	C	ILE A 135	-10.773	1.100	5.187	1.00	15.00	A	C
ATOM	277	O	ILE A 135	-9.703	1.504	5.644	1.00	15.00	A	O
ATOM	278	N	VAL A 136	-11.661	0.423	5.912	1.00	15.00	A	N
ATOM	279	HN	VAL A 136	-12.492	0.124	5.488	1.00	15.00	A	H
ATOM	280	CA	VAL A 136	-11.430	0.115	7.322	1.00	15.00	A	C

ATOM	281	CB	VAL A 136	-12.748	-0.215	8.054	1.00	15.00	A	C
ATOM	282	CG1	VAL A 136	-12.504	-0.420	9.543	1.00	15.00	A	C
ATOM	283	CG2	VAL A 136	-13.776	0.883	7.826	1.00	15.00	A	C
ATOM	284	C	VAL A 136	-10.448	-1.045	7.496	1.00	15.00	A	C
ATOM	285	O	VAL A 136	-10.685	-2.153	7.012	1.00	15.00	A	O
ATOM	286	N	GLY A 137	-9.343	-0.773	8.188	1.00	15.00	A	N
ATOM	287	HN	GLY A 137	-9.209	0.132	8.540	1.00	15.00	A	H
ATOM	288	CA	GLY A 137	-8.340	-1.796	8.429	1.00	15.00	A	C
ATOM	289	C	GLY A 137	-7.391	-1.990	7.262	1.00	15.00	A	C
ATOM	290	O	GLY A 137	-6.608	-2.940	7.247	1.00	15.00	A	O
ATOM	291	N	GLN A 138	-7.454	-1.090	6.284	1.00	15.00	A	N
ATOM	292	HN	GLN A 138	-8.097	-0.354	6.351	1.00	15.00	A	H
ATOM	293	CA	GLN A 138	-6.593	-1.178	5.111	1.00	15.00	A	C
ATOM	294	CB	GLN A 138	-7.099	-0.265	3.993	1.00	15.00	A	C
ATOM	295	CG	GLN A 138	-6.335	-0.418	2.688	1.00	15.00	A	C
ATOM	296	CD	GLN A 138	-6.333	-1.848	2.174	1.00	15.00	A	C
ATOM	297	OE1	GLN A 138	-7.319	-2.574	2.316	1.00	15.00	A	O
ATOM	298	NE2	GLN A 138	-5.215	-2.267	1.591	1.00	15.00	A	N
ATOM	299	HE21	GLN A 138	-4.464	-1.640	1.524	1.00	15.00	A	H
ATOM	300	HE22	GLN A 138	-5.186	-3.186	1.251	1.00	15.00	A	H
ATOM	301	C	GLN A 138	-5.143	-0.849	5.455	1.00	15.00	A	C
ATOM	302	O	GLN A 138	-4.218	-1.437	4.895	1.00	15.00	A	O
ATOM	303	N	LEU A 139	-4.956	0.094	6.377	1.00	15.00	A	N
ATOM	304	HN	LEU A 139	-5.737	0.528	6.778	1.00	15.00	A	H
ATOM	305	CA	LEU A 139	-3.621	0.497	6.807	1.00	15.00	A	C
ATOM	306	CB	LEU A 139	-3.711	1.653	7.804	1.00	15.00	A	C
ATOM	307	CG	LEU A 139	-2.388	2.115	8.420	1.00	15.00	A	C
ATOM	308	CD1	LEU A 139	-1.533	2.835	7.388	1.00	15.00	A	C
ATOM	309	CD2	LEU A 139	-2.636	2.995	9.633	1.00	15.00	A	C
ATOM	310	C	LEU A 139	-2.887	-0.679	7.441	1.00	15.00	A	C
ATOM	311	O	LEU A 139	-1.701	-0.890	7.189	1.00	15.00	A	O
ATOM	312	N	VAL A 140	-3.612	-1.445	8.255	1.00	15.00	A	N
ATOM	313	HN	VAL A 140	-4.553	-1.221	8.404	1.00	15.00	A	H
ATOM	314	CA	VAL A 140	-3.049	-2.610	8.929	1.00	15.00	A	C
ATOM	315	CB	VAL A 140	-4.043	-3.213	9.948	1.00	15.00	A	C
ATOM	316	CG1	VAL A 140	-3.384	-4.320	10.759	1.00	15.00	A	C
ATOM	317	CG2	VAL A 140	-4.588	-2.129	10.868	1.00	15.00	A	C
ATOM	318	C	VAL A 140	-2.647	-3.680	7.915	1.00	15.00	A	C
ATOM	319	O	VAL A 140	-1.632	-4.351	8.085	1.00	15.00	A	O
ATOM	320	N	LYS A 141	-3.450	-3.825	6.859	1.00	15.00	A	N
ATOM	321	HN	LYS A 141	-4.249	-3.262	6.786	1.00	15.00	A	H
ATOM	322	CA	LYS A 141	-3.174	-4.801	5.809	1.00	15.00	A	C
ATOM	323	CB	LYS A 141	-4.342	-4.885	4.825	1.00	15.00	A	C
ATOM	324	CG	LYS A 141	-5.604	-5.495	5.407	1.00	15.00	A	C
ATOM	325	CD	LYS A 141	-6.703	-5.585	4.363	1.00	15.00	A	C
ATOM	326	CE	LYS A 141	-7.959	-6.215	4.939	1.00	15.00	A	C
ATOM	327	NZ	LYS A 141	-9.016	-6.386	3.906	1.00	15.00	A	N

ATOM	328	HZ1 LYS A 141	-8.663	-6.978	3.127	1.00	15.00	A	H
ATOM	329	HZ2 LYS A 141	-9.296	-5.460	3.522	1.00	15.00	A	H
ATOM	330	HZ3 LYS A 141	-9.853	-6.842	4.322	1.00	15.00	A	H
ATOM	331	C LYS A 141	-1.888	-4.460	5.061	1.00	15.00	A	C
ATOM	332	O LYS A 141	-1.087	-5.343	4.765	1.00	15.00	A	O
ATOM	333	N ILE A 142	-1.697	-3.174	4.763	1.00	15.00	A	N
ATOM	334	HN ILE A 142	-2.376	-2.517	5.025	1.00	15.00	A	H
ATOM	335	CA ILE A 142	-0.501	-2.719	4.056	1.00	15.00	A	C
ATOM	336	CB ILE A 142	-0.609	-1.236	3.636	1.00	15.00	A	C
ATOM	337	CG1 ILE A 142	-1.853	-1.019	2.770	1.00	15.00	A	C
ATOM	338	CG2 ILE A 142	0.642	-0.800	2.883	1.00	15.00	A	C
ATOM	339	CD1 ILE A 142	-2.179	0.438	2.519	1.00	15.00	A	C
ATOM	340	C ILE A 142	0.747	-2.923	4.912	1.00	15.00	A	C
ATOM	341	O ILE A 142	1.794	-3.328	4.406	1.00	15.00	A	O
ATOM	342	N ILE A 143	0.627	-2.648	6.211	1.00	15.00	A	N
ATOM	343	HN ILE A 143	-0.233	-2.323	6.554	1.00	15.00	A	H
ATOM	344	CA ILE A 143	1.743	-2.817	7.136	1.00	15.00	A	C
ATOM	345	CB ILE A 143	1.443	-2.204	8.522	1.00	15.00	A	C
ATOM	346	CG1 ILE A 143	1.233	-0.692	8.391	1.00	15.00	A	C
ATOM	347	CG2 ILE A 143	2.573	-2.499	9.503	1.00	15.00	A	C
ATOM	348	CD1 ILE A 143	0.767	-0.020	9.666	1.00	15.00	A	C
ATOM	349	C ILE A 143	2.116	-4.294	7.275	1.00	15.00	A	C
ATOM	350	O ILE A 143	3.296	-4.636	7.322	1.00	15.00	A	O
ATOM	351	N SER A 144	1.105	-5.162	7.324	1.00	15.00	A	N
ATOM	352	HN SER A 144	0.183	-4.826	7.295	1.00	15.00	A	H
ATOM	353	CA SER A 144	1.332	-6.602	7.435	1.00	15.00	A	C
ATOM	354	CB SER A 144	0.015	-7.343	7.661	1.00	15.00	A	C
ATOM	355	OG SER A 144	-0.586	-6.956	8.883	1.00	15.00	A	O
ATOM	356	HG SER A 144	-1.505	-7.234	8.890	1.00	15.00	A	H
ATOM	357	C SER A 144	2.030	-7.144	6.190	1.00	15.00	A	C
ATOM	358	O SER A 144	2.836	-8.069	6.278	1.00	15.00	A	O
ATOM	359	N VAL A 145	1.710	-6.563	5.031	1.00	15.00	A	N
ATOM	360	HN VAL A 145	1.044	-5.843	5.025	1.00	15.00	A	H
ATOM	361	CA VAL A 145	2.323	-6.972	3.770	1.00	15.00	A	C
ATOM	362	CB VAL A 145	1.570	-6.388	2.551	1.00	15.00	A	C
ATOM	363	CG1 VAL A 145	2.356	-6.598	1.264	1.00	15.00	A	C
ATOM	364	CG2 VAL A 145	0.190	-7.016	2.427	1.00	15.00	A	C
ATOM	365	C VAL A 145	3.787	-6.536	3.733	1.00	15.00	A	C
ATOM	366	O VAL A 145	4.653	-7.284	3.286	1.00	15.00	A	O
ATOM	367	N LEU A 146	4.051	-5.324	4.221	1.00	15.00	A	N
ATOM	368	HN LEU A 146	3.314	-4.777	4.564	1.00	15.00	A	H
ATOM	369	CA LEU A 146	5.407	-4.786	4.256	1.00	15.00	A	C
ATOM	370	CB LEU A 146	5.393	-3.315	4.680	1.00	15.00	A	C
ATOM	371	CG LEU A 146	4.781	-2.330	3.679	1.00	15.00	A	C
ATOM	372	CD1 LEU A 146	4.611	-0.959	4.315	1.00	15.00	A	C
ATOM	373	CD2 LEU A 146	5.638	-2.237	2.425	1.00	15.00	A	C
ATOM	374	C LEU A 146	6.304	-5.600	5.186	1.00	15.00	A	C

ATOM	375	O	LEU A 146	7.418	-5.961	4.816	1.00	15.00	A	O
ATOM	376	N	GLU A 147	5.806	-5.895	6.390	1.00	15.00	A	N
ATOM	377	HN	GLU A 147	4.908	-5.579	6.625	1.00	15.00	A	H
ATOM	378	CA	GLU A 147	6.563	-6.673	7.371	1.00	15.00	A	C
ATOM	379	CB	GLU A 147	5.824	-6.719	8.711	1.00	15.00	A	C
ATOM	380	CG	GLU A 147	5.631	-5.359	9.362	1.00	15.00	A	C
ATOM	381	CD	GLU A 147	4.786	-5.427	10.619	1.00	15.00	A	C
ATOM	382	OE1	GLU A 147	5.099	-4.697	11.583	1.00	15.00	A	O
ATOM	383	OE2	GLU A 147	3.812	-6.210	10.639	1.00	15.00	A	O
ATOM	384	C	GLU A 147	6.832	-8.091	6.869	1.00	15.00	A	C
ATOM	385	O	GLU A 147	7.871	-8.679	7.174	1.00	15.00	A	O
ATOM	386	N	LYS A 148	5.887	-8.630	6.097	1.00	15.00	A	N
ATOM	387	HN	LYS A 148	5.078	-8.111	5.905	1.00	15.00	A	H
ATOM	388	CA	LYS A 148	6.013	-9.973	5.536	1.00	15.00	A	C
ATOM	389	CB	LYS A 148	4.656	-10.446	4.999	1.00	15.00	A	C
ATOM	390	CG	LYS A 148	4.655	-11.856	4.430	1.00	15.00	A	C
ATOM	391	CD	LYS A 148	3.364	-12.145	3.682	1.00	15.00	A	C
ATOM	392	CE	LYS A 148	3.430	-13.481	2.962	1.00	15.00	A	C
ATOM	393	NZ	LYS A 148	2.207	-13.732	2.149	1.00	15.00	A	N
ATOM	394	HZ1	LYS A 148	2.081	-12.972	1.450	1.00	15.00	A	H
ATOM	395	HZ2	LYS A 148	1.370	-13.765	2.764	1.00	15.00	A	H
ATOM	396	HZ3	LYS A 148	2.292	-14.640	1.648	1.00	15.00	A	H
ATOM	397	C	LYS A 148	7.064	-10.010	4.422	1.00	15.00	A	C
ATOM	398	O	LYS A 148	7.697	-11.040	4.189	1.00	15.00	A	O
ATOM	399	N	LEU A 149	7.250	-8.876	3.743	1.00	15.00	A	N
ATOM	400	HN	LEU A 149	6.720	-8.086	3.980	1.00	15.00	A	H
ATOM	401	CA	LEU A 149	8.222	-8.780	2.656	1.00	15.00	A	C
ATOM	402	CB	LEU A 149	7.694	-7.875	1.538	1.00	15.00	A	C
ATOM	403	CG	LEU A 149	6.332	-8.243	0.936	1.00	15.00	A	C
ATOM	404	CD1	LEU A 149	6.001	-7.326	-0.232	1.00	15.00	A	C
ATOM	405	CD2	LEU A 149	6.294	-9.703	0.505	1.00	15.00	A	C
ATOM	406	C	LEU A 149	9.578	-8.274	3.157	1.00	15.00	A	C
ATOM	407	O	LEU A 149	10.431	-7.874	2.361	1.00	15.00	A	O
ATOM	408	N	SER A 150	9.756	-8.295	4.482	1.00	15.00	A	N
ATOM	409	HN	SER A 150	9.023	-8.616	5.048	1.00	15.00	A	H
ATOM	410	CA	SER A 150	11.000	-7.862	5.127	1.00	15.00	A	C
ATOM	411	CB	SER A 150	12.206	-8.660	4.613	1.00	15.00	A	C
ATOM	412	OG	SER A 150	12.022	-10.051	4.818	1.00	15.00	A	O
ATOM	413	HG	SER A 150	12.617	-10.354	5.508	1.00	15.00	A	H
ATOM	414	C	SER A 150	11.248	-6.354	5.013	1.00	15.00	A	C
ATOM	415	O	SER A 150	12.393	-5.914	4.921	1.00	15.00	A	O
ATOM	416	N	PHE A 151	10.175	-5.565	5.033	1.00	15.00	A	N
ATOM	417	HN	PHE A 151	9.285	-5.970	5.098	1.00	15.00	A	H
ATOM	418	CA	PHE A 151	10.290	-4.111	4.953	1.00	15.00	A	C
ATOM	419	CB	PHE A 151	9.333	-3.538	3.905	1.00	15.00	A	C
ATOM	420	CG	PHE A 151	9.809	-3.689	2.490	1.00	15.00	A	C
ATOM	421	CD1	PHE A 151	10.755	-2.823	1.967	1.00	15.00	A	C

ATOM	422	CD2 PHE A 151	9.305	-4.693	1.681	1.00	15.00	A	C
ATOM	423	CE1 PHE A 151	11.193	-2.956	0.663	1.00	15.00	A	C
ATOM	424	CE2 PHE A 151	9.737	-4.833	0.377	1.00	15.00	A	C
ATOM	425	CZ PHE A 151	10.682	-3.963	-0.134	1.00	15.00	A	C
ATOM	426	C PHE A 151	10.012	-3.468	6.306	1.00	15.00	A	C
ATOM	427	O PHE A 151	8.993	-3.747	6.938	1.00	15.00	A	O
ATOM	428	N GLN A 152	10.922	-2.606	6.745	1.00	15.00	A	N
ATOM	429	HN GLN A 152	11.716	-2.426	6.197	1.00	15.00	A	H
ATOM	430	CA GLN A 152	10.766	-1.918	8.020	1.00	15.00	A	C
ATOM	431	CB GLN A 152	12.092	-1.882	8.786	1.00	15.00	A	C
ATOM	432	CG GLN A 152	12.026	-1.113	10.098	1.00	15.00	A	C
ATOM	433	CD GLN A 152	13.363	-1.039	10.808	1.00	15.00	A	C
ATOM	434	OE1 GLN A 152	14.420	-1.066	10.177	1.00	15.00	A	O
ATOM	435	NE2 GLN A 152	13.320	-0.936	12.132	1.00	15.00	A	N
ATOM	436	HE21 GLN A 152	12.440	-0.915	12.565	1.00	15.00	A	H
ATOM	437	HE22 GLN A 152	14.167	-0.887	12.622	1.00	15.00	A	H
ATOM	438	C GLN A 152	10.241	-0.502	7.810	1.00	15.00	A	C
ATOM	439	O GLN A 152	10.874	0.311	7.136	1.00	15.00	A	O
ATOM	440	N VAL A 153	9.079	-0.215	8.386	1.00	15.00	A	N
ATOM	441	HN VAL A 153	8.618	-0.909	8.901	1.00	15.00	A	H
ATOM	442	CA VAL A 153	8.471	1.106	8.268	1.00	15.00	A	C
ATOM	443	CB VAL A 153	6.971	1.073	8.634	1.00	15.00	A	C
ATOM	444	CG1 VAL A 153	6.318	2.421	8.359	1.00	15.00	A	C
ATOM	445	CG2 VAL A 153	6.253	-0.035	7.877	1.00	15.00	A	C
ATOM	446	C VAL A 153	9.187	2.113	9.165	1.00	15.00	A	C
ATOM	447	O VAL A 153	9.192	1.973	10.388	1.00	15.00	A	O
ATOM	448	N LEU A 154	9.796	3.122	8.551	1.00	15.00	A	N
ATOM	449	HN LEU A 154	9.766	3.175	7.573	1.00	15.00	A	H
ATOM	450	CA LEU A 154	10.510	4.152	9.298	1.00	15.00	A	C
ATOM	451	CB LEU A 154	11.772	4.588	8.547	1.00	15.00	A	C
ATOM	452	CG LEU A 154	12.730	3.477	8.105	1.00	15.00	A	C
ATOM	453	CD1 LEU A 154	13.798	4.039	7.180	1.00	15.00	A	C
ATOM	454	CD2 LEU A 154	13.369	2.801	9.311	1.00	15.00	A	C
ATOM	455	C LEU A 154	9.612	5.359	9.554	1.00	15.00	A	C
ATOM	456	O LEU A 154	9.632	5.939	10.640	1.00	15.00	A	O
ATOM	457	N HIS A 155	8.822	5.731	8.549	1.00	15.00	A	N
ATOM	458	HN HIS A 155	8.848	5.225	7.710	1.00	15.00	A	H
ATOM	459	CA HIS A 155	7.917	6.871	8.665	1.00	15.00	A	C
ATOM	460	CB HIS A 155	8.575	8.138	8.098	1.00	15.00	A	C
ATOM	461	CG HIS A 155	7.751	9.385	8.248	1.00	15.00	A	C
ATOM	462	ND1 HIS A 155	6.975	9.857	7.217	1.00	15.00	A	N
ATOM	463	CD2 HIS A 155	7.621	10.210	9.318	1.00	15.00	A	C
ATOM	464	CE1 HIS A 155	6.391	10.950	7.674	1.00	15.00	A	C
ATOM	465	NE2 HIS A 155	6.752	11.202	8.939	1.00	15.00	A	N
ATOM	466	HE2 HIS A 155	6.453	11.955	9.491	1.00	15.00	A	H
ATOM	467	C HIS A 155	6.592	6.593	7.958	1.00	15.00	A	C
ATOM	468	O HIS A 155	6.558	5.949	6.910	1.00	15.00	A	O

ATOM	469	N	LEU A 156	5.504	7.087	8.545	1.00	15.00	A	N
ATOM	470	HN	LEU A 156	5.602	7.586	9.382	1.00	15.00	A	H
ATOM	471	CA	LEU A 156	4.173	6.905	7.981	1.00	15.00	A	C
ATOM	472	CB	LEU A 156	3.477	5.700	8.628	1.00	15.00	A	C
ATOM	473	CG	LEU A 156	1.958	5.585	8.438	1.00	15.00	A	C
ATOM	474	CD1	LEU A 156	1.588	5.538	6.961	1.00	15.00	A	C
ATOM	475	CD2	LEU A 156	1.421	4.362	9.166	1.00	15.00	A	C
ATOM	476	C	LEU A 156	3.326	8.168	8.137	1.00	15.00	A	C
ATOM	477	O	LEU A 156	3.098	8.646	9.249	1.00	15.00	A	O
ATOM	478	N	ASN A 157	2.867	8.700	7.006	1.00	15.00	A	N
ATOM	479	HN	ASN A 157	3.090	8.267	6.155	1.00	15.00	A	H
ATOM	480	CA	ASN A 157	2.036	9.899	6.990	1.00	15.00	A	C
ATOM	481	CB	ASN A 157	2.759	11.044	6.269	1.00	15.00	A	C
ATOM	482	CG	ASN A 157	1.913	12.300	6.153	1.00	15.00	A	C
ATOM	483	OD1	ASN A 157	1.257	12.528	5.136	1.00	15.00	A	O
ATOM	484	ND2	ASN A 157	1.920	13.121	7.199	1.00	15.00	A	N
ATOM	485	HD21	ASN A 157	2.462	12.876	7.978	1.00	15.00	A	H
ATOM	486	HD22	ASN A 157	1.380	13.939	7.148	1.00	15.00	A	H
ATOM	487	C	ASN A 157	0.695	9.602	6.321	1.00	15.00	A	C
ATOM	488	O	ASN A 157	0.649	9.155	5.175	1.00	15.00	A	O
ATOM	489	N	ILE A 158	-0.395	9.847	7.044	1.00	15.00	A	N
ATOM	490	HN	ILE A 158	-0.298	10.208	7.949	1.00	15.00	A	H
ATOM	491	CA	ILE A 158	-1.734	9.590	6.518	1.00	15.00	A	C
ATOM	492	CB	ILE A 158	-2.553	8.686	7.466	1.00	15.00	A	C
ATOM	493	CG1	ILE A 158	-1.774	7.411	7.804	1.00	15.00	A	C
ATOM	494	CG2	ILE A 158	-3.899	8.339	6.841	1.00	15.00	A	C
ATOM	495	CD1	ILE A 158	-2.359	6.621	8.955	1.00	15.00	A	C
ATOM	496	C	ILE A 158	-2.506	10.885	6.272	1.00	15.00	A	C
ATOM	497	O	ILE A 158	-2.870	11.592	7.212	1.00	15.00	A	O
ATOM	498	N	SER A 159	-2.755	11.185	5.000	1.00	15.00	A	N
ATOM	499	HN	SER A 159	-2.427	10.585	4.297	1.00	15.00	A	H
ATOM	500	CA	SER A 159	-3.502	12.383	4.620	1.00	15.00	A	C
ATOM	501	CB	SER A 159	-2.650	13.287	3.725	1.00	15.00	A	C
ATOM	502	OG	SER A 159	-1.486	13.726	4.403	1.00	15.00	A	O
ATOM	503	HG	SER A 159	-1.707	13.941	5.311	1.00	15.00	A	H
ATOM	504	C	SER A 159	-4.787	11.993	3.897	1.00	15.00	A	C
ATOM	505	O	SER A 159	-4.751	11.268	2.907	1.00	15.00	A	O
ATOM	506	N	SER A 160	-5.924	12.471	4.391	1.00	15.00	A	N
ATOM	507	HN	SER A 160	-5.901	13.053	5.180	1.00	15.00	A	H
ATOM	508	CA	SER A 160	-7.206	12.143	3.778	1.00	15.00	A	C
ATOM	509	CB	SER A 160	-8.119	11.427	4.778	1.00	15.00	A	C
ATOM	510	OG	SER A 160	-8.411	12.258	5.887	1.00	15.00	A	O
ATOM	511	HG	SER A 160	-8.543	13.159	5.585	1.00	15.00	A	H
ATOM	512	C	SER A 160	-7.905	13.372	3.201	1.00	15.00	A	C
ATOM	513	O	SER A 160	-7.861	14.458	3.782	1.00	15.00	A	O
ATOM	514	N	MET A 161	-8.548	13.183	2.051	1.00	15.00	A	N
ATOM	515	HN	MET A 161	-8.532	12.295	1.639	1.00	15.00	A	H

ATOM	516	CA	MET A 161	-9.274	14.254	1.380	1.00	15.00	A	C
ATOM	517	CB	MET A 161	-8.393	14.924	0.322	1.00	15.00	A	C
ATOM	518	CG	MET A 161	-8.984	16.204	-0.248	1.00	15.00	A	C
ATOM	519	SD	MET A 161	-8.046	16.852	-1.644	1.00	15.00	A	S
ATOM	520	CE	MET A 161	-8.365	15.594	-2.879	1.00	15.00	A	C
ATOM	521	C	MET A 161	-10.549	13.709	0.737	1.00	15.00	A	C
ATOM	522	O	MET A 161	-10.485	12.901	-0.191	1.00	15.00	A	O
ATOM	523	N	GLU A 162	-11.700	14.154	1.249	1.00	15.00	A	N
ATOM	524	HN	GLU A 162	-11.668	14.794	1.989	1.00	15.00	A	H
ATOM	525	CA	GLU A 162	-13.009	13.725	0.747	1.00	15.00	A	C
ATOM	526	CB	GLU A 162	-13.204	14.094	-0.729	1.00	15.00	A	C
ATOM	527	CG	GLU A 162	-13.178	15.587	-1.006	1.00	15.00	A	C
ATOM	528	CD	GLU A 162	-13.264	15.904	-2.485	1.00	15.00	A	C
ATOM	529	OE1	GLU A 162	-12.204	15.953	-3.143	1.00	15.00	A	O
ATOM	530	OE2	GLU A 162	-14.391	16.101	-2.985	1.00	15.00	A	O
ATOM	531	C	GLU A 162	-13.261	12.234	0.984	1.00	15.00	A	C
ATOM	532	O	GLU A 162	-13.591	11.822	2.097	1.00	15.00	A	O
ATOM	533	N	GLU A 163	-13.098	11.430	-0.064	1.00	15.00	A	N
ATOM	534	HN	GLU A 163	-12.829	11.814	-0.924	1.00	15.00	A	H
ATOM	535	CA	GLU A 163	-13.313	9.989	0.033	1.00	15.00	A	C
ATOM	536	CB	GLU A 163	-14.399	9.540	-0.951	1.00	15.00	A	C
ATOM	537	CG	GLU A 163	-15.776	10.128	-0.683	1.00	15.00	A	C
ATOM	538	CD	GLU A 163	-16.813	9.667	-1.690	1.00	15.00	A	C
ATOM	539	OE1	GLU A 163	-16.956	10.328	-2.741	1.00	15.00	A	O
ATOM	540	OE2	GLU A 163	-17.481	8.645	-1.429	1.00	15.00	A	O
ATOM	541	C	GLU A 163	-12.025	9.211	-0.230	1.00	15.00	A	C
ATOM	542	O	GLU A 163	-12.018	7.982	-0.185	1.00	15.00	A	O
ATOM	543	N	THR A 164	-10.936	9.928	-0.500	1.00	15.00	A	N
ATOM	544	HN	THR A 164	-10.995	10.906	-0.511	1.00	15.00	A	H
ATOM	545	CA	THR A 164	-9.653	9.288	-0.781	1.00	15.00	A	C
ATOM	546	CB	THR A 164	-9.009	9.844	-2.067	1.00	15.00	A	C
ATOM	547	OG1	THR A 164	-8.811	11.257	-1.937	1.00	15.00	A	O
ATOM	548	HG1	THR A 164	-8.431	11.449	-1.077	1.00	15.00	A	H
ATOM	549	CG2	THR A 164	-9.889	9.564	-3.277	1.00	15.00	A	C
ATOM	550	C	THR A 164	-8.667	9.438	0.375	1.00	15.00	A	C
ATOM	551	O	THR A 164	-8.721	10.406	1.132	1.00	15.00	A	O
ATOM	552	N	VAL A 165	-7.770	8.460	0.502	1.00	15.00	A	N
ATOM	553	HN	VAL A 165	-7.796	7.710	-0.129	1.00	15.00	A	H
ATOM	554	CA	VAL A 165	-6.750	8.466	1.550	1.00	15.00	A	C
ATOM	555	CB	VAL A 165	-7.046	7.434	2.662	1.00	15.00	A	C
ATOM	556	CG1	VAL A 165	-6.024	7.548	3.783	1.00	15.00	A	C
ATOM	557	CG2	VAL A 165	-8.451	7.614	3.214	1.00	15.00	A	C
ATOM	558	C	VAL A 165	-5.372	8.174	0.956	1.00	15.00	A	C
ATOM	559	O	VAL A 165	-5.192	7.199	0.225	1.00	15.00	A	O
ATOM	560	N	LEU A 166	-4.407	9.027	1.279	1.00	15.00	A	N
ATOM	561	HN	LEU A 166	-4.618	9.778	1.872	1.00	15.00	A	H
ATOM	562	CA	LEU A 166	-3.043	8.879	0.789	1.00	15.00	A	C

ATOM	563	CB	LEU A 166	-2.517	10.232	0.294	1.00	15.00	A	C
ATOM	564	CG	LEU A 166	-1.016	10.326	0.005	1.00	15.00	A	C
ATOM	565	CD1	LEU A 166	-0.632	9.457	-1.183	1.00	15.00	A	C
ATOM	566	CD2	LEU A 166	-0.609	11.773	-0.231	1.00	15.00	A	C
ATOM	567	C	LEU A 166	-2.127	8.321	1.876	1.00	15.00	A	C
ATOM	568	O	LEU A 166	-1.941	8.939	2.925	1.00	15.00	A	O
ATOM	569	N	TYR A 167	-1.559	7.147	1.613	1.00	15.00	A	N
ATOM	570	HN	TYR A 167	-1.750	6.707	0.759	1.00	15.00	A	H
ATOM	571	CA	TYR A 167	-0.659	6.499	2.559	1.00	15.00	A	C
ATOM	572	CB	TYR A 167	-0.979	5.007	2.667	1.00	15.00	A	C
ATOM	573	CG	TYR A 167	-2.365	4.691	3.187	1.00	15.00	A	C
ATOM	574	CD1	TYR A 167	-2.689	4.875	4.526	1.00	15.00	A	C
ATOM	575	CD2	TYR A 167	-3.348	4.194	2.338	1.00	15.00	A	C
ATOM	576	CE1	TYR A 167	-3.952	4.576	5.004	1.00	15.00	A	C
ATOM	577	CE2	TYR A 167	-4.613	3.895	2.806	1.00	15.00	A	C
ATOM	578	CZ	TYR A 167	-4.909	4.086	4.139	1.00	15.00	A	C
ATOM	579	OH	TYR A 167	-6.167	3.785	4.609	1.00	15.00	A	O
ATOM	580	HH	TYR A 167	-6.452	2.946	4.244	1.00	15.00	A	H
ATOM	581	C	TYR A 167	0.800	6.686	2.140	1.00	15.00	A	C
ATOM	582	O	TYR A 167	1.279	6.037	1.208	1.00	15.00	A	O
ATOM	583	N	PHE A 168	1.499	7.574	2.837	1.00	15.00	A	N
ATOM	584	HN	PHE A 168	1.060	8.052	3.570	1.00	15.00	A	H
ATOM	585	CA	PHE A 168	2.902	7.851	2.550	1.00	15.00	A	C
ATOM	586	CB	PHE A 168	3.196	9.344	2.738	1.00	15.00	A	C
ATOM	587	CG	PHE A 168	4.562	9.772	2.282	1.00	15.00	A	C
ATOM	588	CD1	PHE A 168	5.560	10.046	3.204	1.00	15.00	A	C
ATOM	589	CD2	PHE A 168	4.847	9.904	0.932	1.00	15.00	A	C
ATOM	590	CE1	PHE A 168	6.817	10.444	2.788	1.00	15.00	A	C
ATOM	591	CE2	PHE A 168	6.101	10.301	0.509	1.00	15.00	A	C
ATOM	592	CZ	PHE A 168	7.088	10.571	1.439	1.00	15.00	A	C
ATOM	593	C	PHE A 168	3.806	7.008	3.448	1.00	15.00	A	C
ATOM	594	O	PHE A 168	3.800	7.167	4.667	1.00	15.00	A	O
ATOM	595	N	PHE A 169	4.579	6.113	2.838	1.00	15.00	A	N
ATOM	596	HN	PHE A 169	4.551	6.042	1.862	1.00	15.00	A	H
ATOM	597	CA	PHE A 169	5.471	5.237	3.589	1.00	15.00	A	C
ATOM	598	CB	PHE A 169	5.111	3.765	3.352	1.00	15.00	A	C
ATOM	599	CG	PHE A 169	3.801	3.321	3.936	1.00	15.00	A	C
ATOM	600	CD1	PHE A 169	3.736	2.826	5.230	1.00	15.00	A	C
ATOM	601	CD2	PHE A 169	2.640	3.379	3.185	1.00	15.00	A	C
ATOM	602	CE1	PHE A 169	2.534	2.399	5.762	1.00	15.00	A	C
ATOM	603	CE2	PHE A 169	1.436	2.957	3.713	1.00	15.00	A	C
ATOM	604	CZ	PHE A 169	1.383	2.465	5.002	1.00	15.00	A	C
ATOM	605	C	PHE A 169	6.936	5.431	3.221	1.00	15.00	A	C
ATOM	606	O	PHE A 169	7.288	5.557	2.050	1.00	15.00	A	O
ATOM	607	N	VAL A 170	7.781	5.457	4.243	1.00	15.00	A	N
ATOM	608	HN	VAL A 170	7.420	5.403	5.154	1.00	15.00	A	H
ATOM	609	CA	VAL A 170	9.226	5.564	4.062	1.00	15.00	A	C

ATOM	610	CB	VAL A 170	9.814	6.811	4.760	1.00	15.00	A	C
ATOM	611	CG1	VAL A 170	11.311	6.921	4.496	1.00	15.00	A	C
ATOM	612	CG2	VAL A 170	9.104	8.074	4.297	1.00	15.00	A	C
ATOM	613	C	VAL A 170	9.839	4.304	4.664	1.00	15.00	A	C
ATOM	614	O	VAL A 170	10.205	4.274	5.837	1.00	15.00	A	O
ATOM	615	N	VAL A 171	9.916	3.253	3.856	1.00	15.00	A	N
ATOM	616	HN	VAL A 171	9.631	3.346	2.924	1.00	15.00	A	H
ATOM	617	CA	VAL A 171	10.422	1.966	4.322	1.00	15.00	A	C
ATOM	618	CB	VAL A 171	9.577	0.794	3.778	1.00	15.00	A	C
ATOM	619	CG1	VAL A 171	8.185	0.818	4.384	1.00	15.00	A	C
ATOM	620	CG2	VAL A 171	9.497	0.839	2.257	1.00	15.00	A	C
ATOM	621	C	VAL A 171	11.890	1.715	3.997	1.00	15.00	A	C
ATOM	622	O	VAL A 171	12.439	2.249	3.034	1.00	15.00	A	O
ATOM	623	N	LYS A 172	12.507	0.886	4.831	1.00	15.00	A	N
ATOM	624	HN	LYS A 172	12.005	0.528	5.593	1.00	15.00	A	H
ATOM	625	CA	LYS A 172	13.895	0.489	4.666	1.00	15.00	A	C
ATOM	626	CB	LYS A 172	14.629	0.584	6.010	1.00	15.00	A	C
ATOM	627	CG	LYS A 172	16.077	0.116	5.982	1.00	15.00	A	C
ATOM	628	CD	LYS A 172	16.663	0.052	7.385	1.00	15.00	A	C
ATOM	629	CE	LYS A 172	18.089	-0.474	7.369	1.00	15.00	A	C
ATOM	630	NZ	LYS A 172	18.666	-0.563	8.741	1.00	15.00	A	N
ATOM	631	HZ1	LYS A 172	18.092	-1.201	9.329	1.00	15.00	A	H
ATOM	632	HZ2	LYS A 172	18.681	0.378	9.184	1.00	15.00	A	H
ATOM	633	HZ3	LYS A 172	19.639	-0.929	8.697	1.00	15.00	A	H
ATOM	634	C	LYS A 172	13.929	-0.948	4.153	1.00	15.00	A	C
ATOM	635	O	LYS A 172	13.222	-1.812	4.675	1.00	15.00	A	O
ATOM	636	N	ILE A 173	14.734	-1.196	3.125	1.00	15.00	A	N
ATOM	637	HN	ILE A 173	15.267	-0.466	2.749	1.00	15.00	A	H
ATOM	638	CA	ILE A 173	14.841	-2.531	2.542	1.00	15.00	A	C
ATOM	639	CB	ILE A 173	15.525	-2.495	1.159	1.00	15.00	A	C
ATOM	640	CG1	ILE A 173	14.888	-1.421	0.271	1.00	15.00	A	C
ATOM	641	CG2	ILE A 173	15.440	-3.861	0.489	1.00	15.00	A	C
ATOM	642	CD1	ILE A 173	15.645	-1.157	-1.014	1.00	15.00	A	C
ATOM	643	C	ILE A 173	15.612	-3.479	3.459	1.00	15.00	A	C
ATOM	644	O	ILE A 173	16.757	-3.209	3.827	1.00	15.00	A	O
ATOM	645	N	GLY A 174	14.972	-4.589	3.824	1.00	15.00	A	N
ATOM	646	HN	GLY A 174	14.057	-4.740	3.508	1.00	15.00	A	H
ATOM	647	CA	GLY A 174	15.607	-5.572	4.685	1.00	15.00	A	C
ATOM	648	C	GLY A 174	16.628	-6.413	3.941	1.00	15.00	A	C
ATOM	649	O	GLY A 174	16.657	-6.421	2.710	1.00	15.00	A	O
ATOM	650	N	LEU A 175	17.468	-7.123	4.688	1.00	15.00	A	N
ATOM	651	HN	LEU A 175	17.395	-7.077	5.664	1.00	15.00	A	H
ATOM	652	CA	LEU A 175	18.501	-7.967	4.093	1.00	15.00	A	C
ATOM	653	CB	LEU A 175	19.560	-8.328	5.139	1.00	15.00	A	C
ATOM	654	CG	LEU A 175	20.297	-7.154	5.791	1.00	15.00	A	C
ATOM	655	CD1	LEU A 175	21.180	-7.646	6.927	1.00	15.00	A	C
ATOM	656	CD2	LEU A 175	21.122	-6.396	4.762	1.00	15.00	A	C

ATOM	657	C	LEU A 175	17.916	-9.239	3.482	1.00	15.00	A	C
ATOM	658	O	LEU A 175	18.550	-9.882	2.646	1.00	15.00	A	O
ATOM	659	N	GLU A 176	16.703	-9.596	3.899	1.00	15.00	A	N
ATOM	660	HN	GLU A 176	16.243	-9.042	4.563	1.00	15.00	A	H
ATOM	661	CA	GLU A 176	16.045	-10.797	3.393	1.00	15.00	A	C
ATOM	662	CB	GLU A 176	15.372	-11.558	4.536	1.00	15.00	A	C
ATOM	663	CG	GLU A 176	16.328	-11.982	5.641	1.00	15.00	A	C
ATOM	664	CD	GLU A 176	15.627	-12.684	6.789	1.00	15.00	A	C
ATOM	665	OE1	GLU A 176	16.324	-13.317	7.610	1.00	15.00	A	O
ATOM	666	OE2	GLU A 176	14.383	-12.599	6.868	1.00	15.00	A	O
ATOM	667	C	GLU A 176	15.031	-10.475	2.292	1.00	15.00	A	C
ATOM	668	O	GLU A 176	14.235	-11.330	1.905	1.00	15.00	A	O
ATOM	669	N	CYS A 177	15.067	-9.244	1.787	1.00	15.00	A	N
ATOM	670	HN	CYS A 177	15.724	-8.604	2.130	1.00	15.00	A	H
ATOM	671	CA	CYS A 177	14.152	-8.828	0.730	1.00	15.00	A	C
ATOM	672	CB	CYS A 177	13.856	-7.329	0.826	1.00	15.00	A	C
ATOM	673	SG	CYS A 177	12.731	-6.710	-0.447	1.00	15.00	A	S
ATOM	674	HG	CYS A 177	11.780	-6.008	0.152	1.00	15.00	A	H
ATOM	675	C	CYS A 177	14.716	-9.167	-0.647	1.00	15.00	A	C
ATOM	676	O	CYS A 177	15.792	-8.697	-1.020	1.00	15.00	A	O
ATOM	677	N	HIS A 178	13.980	-9.984	-1.397	1.00	15.00	A	N
ATOM	678	HN	HIS A 178	13.129	-10.317	-1.043	1.00	15.00	A	H
ATOM	679	CA	HIS A 178	14.405	-10.398	-2.733	1.00	15.00	A	C
ATOM	680	CB	HIS A 178	14.559	-11.924	-2.798	1.00	15.00	A	C
ATOM	681	CG	HIS A 178	15.463	-12.500	-1.747	1.00	15.00	A	C
ATOM	682	ND1	HIS A 178	16.826	-12.337	-1.808	1.00	15.00	A	N
ATOM	683	CD2	HIS A 178	15.147	-13.217	-0.641	1.00	15.00	A	C
ATOM	684	CE1	HIS A 178	17.311	-12.952	-0.743	1.00	15.00	A	C
ATOM	685	NE2	HIS A 178	16.333	-13.499	-0.010	1.00	15.00	A	N
ATOM	686	HE2	HIS A 178	16.443	-14.007	0.822	1.00	15.00	A	H
ATOM	687	C	HIS A 178	13.410	-9.939	-3.798	1.00	15.00	A	C
ATOM	688	O	HIS A 178	13.467	-10.386	-4.945	1.00	15.00	A	O
ATOM	689	N	LEU A 179	12.503	-9.043	-3.417	1.00	15.00	A	N
ATOM	690	HN	LEU A 179	12.517	-8.713	-2.494	1.00	15.00	A	H
ATOM	691	CA	LEU A 179	11.491	-8.537	-4.340	1.00	15.00	A	C
ATOM	692	CB	LEU A 179	10.127	-8.456	-3.649	1.00	15.00	A	C
ATOM	693	CG	LEU A 179	9.572	-9.775	-3.110	1.00	15.00	A	C
ATOM	694	CD1	LEU A 179	9.318	-9.672	-1.616	1.00	15.00	A	C
ATOM	695	CD2	LEU A 179	8.298	-10.160	-3.848	1.00	15.00	A	C
ATOM	696	C	LEU A 179	11.873	-7.177	-4.914	1.00	15.00	A	C
ATOM	697	O	LEU A 179	12.573	-6.392	-4.274	1.00	15.00	A	O
ATOM	698	N	SER A 180	11.400	-6.912	-6.129	1.00	15.00	A	N
ATOM	699	HN	SER A 180	10.856	-7.589	-6.585	1.00	15.00	A	H
ATOM	700	CA	SER A 180	11.671	-5.649	-6.807	1.00	15.00	A	C
ATOM	701	CB	SER A 180	11.753	-5.868	-8.321	1.00	15.00	A	C
ATOM	702	OG	SER A 180	10.523	-6.350	-8.839	1.00	15.00	A	O
ATOM	703	HG	SER A 180	10.287	-5.848	-9.623	1.00	15.00	A	H

ATOM	704	C	SER A 180	10.588	-4.620	-6.488	1.00	15.00	A	C
ATOM	705	O	SER A 180	9.648	-4.906	-5.745	1.00	15.00	A	O
ATOM	706	N	LEU A 181	10.723	-3.423	-7.054	1.00	15.00	A	N
ATOM	707	HN	LEU A 181	11.495	-3.252	-7.633	1.00	15.00	A	H
ATOM	708	CA	LEU A 181	9.751	-2.358	-6.834	1.00	15.00	A	C
ATOM	709	CB	LEU A 181	10.288	-1.024	-7.352	1.00	15.00	A	C
ATOM	710	CG	LEU A 181	11.514	-0.458	-6.636	1.00	15.00	A	C
ATOM	711	CD1	LEU A 181	11.924	0.863	-7.265	1.00	15.00	A	C
ATOM	712	CD2	LEU A 181	11.238	-0.284	-5.149	1.00	15.00	A	C
ATOM	713	C	LEU A 181	8.429	-2.682	-7.518	1.00	15.00	A	C
ATOM	714	O	LEU A 181	7.364	-2.273	-7.056	1.00	15.00	A	O
ATOM	715	N	GLU A 182	8.510	-3.420	-8.622	1.00	15.00	A	N
ATOM	716	HN	GLU A 182	9.393	-3.708	-8.939	1.00	15.00	A	H
ATOM	717	CA	GLU A 182	7.328	-3.812	-9.377	1.00	15.00	A	C
ATOM	718	CB	GLU A 182	7.721	-4.363	-10.752	1.00	15.00	A	C
ATOM	719	CG	GLU A 182	8.259	-3.323	-11.728	1.00	15.00	A	C
ATOM	720	CD	GLU A 182	9.693	-2.917	-11.441	1.00	15.00	A	C
ATOM	721	OE1	GLU A 182	10.039	-1.743	-11.699	1.00	15.00	A	O
ATOM	722	OE2	GLU A 182	10.468	-3.772	-10.956	1.00	15.00	A	O
ATOM	723	C	GLU A 182	6.516	-4.852	-8.614	1.00	15.00	A	C
ATOM	724	O	GLU A 182	5.289	-4.790	-8.585	1.00	15.00	A	O
ATOM	725	N	GLU A 183	7.214	-5.803	-7.990	1.00	15.00	A	N
ATOM	726	HN	GLU A 183	8.192	-5.797	-8.055	1.00	15.00	A	H
ATOM	727	CA	GLU A 183	6.563	-6.857	-7.217	1.00	15.00	A	C
ATOM	728	CB	GLU A 183	7.540	-8.000	-6.942	1.00	15.00	A	C
ATOM	729	CG	GLU A 183	8.071	-8.677	-8.194	1.00	15.00	A	C
ATOM	730	CD	GLU A 183	9.051	-9.788	-7.882	1.00	15.00	A	C
ATOM	731	OE1	GLU A 183	8.688	-10.969	-8.069	1.00	15.00	A	O
ATOM	732	OE2	GLU A 183	10.181	-9.477	-7.446	1.00	15.00	A	O
ATOM	733	C	GLU A 183	6.004	-6.314	-5.904	1.00	15.00	A	C
ATOM	734	O	GLU A 183	5.039	-6.853	-5.362	1.00	15.00	A	O
ATOM	735	N	LEU A 184	6.624	-5.248	-5.398	1.00	15.00	A	N
ATOM	736	HN	LEU A 184	7.398	-4.878	-5.873	1.00	15.00	A	H
ATOM	737	CA	LEU A 184	6.189	-4.618	-4.157	1.00	15.00	A	C
ATOM	738	CB	LEU A 184	7.261	-3.648	-3.645	1.00	15.00	A	C
ATOM	739	CG	LEU A 184	6.887	-2.792	-2.430	1.00	15.00	A	C
ATOM	740	CD1	LEU A 184	6.681	-3.659	-1.197	1.00	15.00	A	C
ATOM	741	CD2	LEU A 184	7.946	-1.730	-2.174	1.00	15.00	A	C
ATOM	742	C	LEU A 184	4.865	-3.885	-4.359	1.00	15.00	A	C
ATOM	743	O	LEU A 184	3.951	-4.004	-3.545	1.00	15.00	A	O
ATOM	744	N	THR A 185	4.767	-3.136	-5.457	1.00	15.00	A	N
ATOM	745	HN	THR A 185	5.529	-3.086	-6.070	1.00	15.00	A	H
ATOM	746	CA	THR A 185	3.553	-2.387	-5.770	1.00	15.00	A	C
ATOM	747	CB	THR A 185	3.768	-1.385	-6.925	1.00	15.00	A	C
ATOM	748	OG1	THR A 185	4.258	-2.072	-8.083	1.00	15.00	A	O
ATOM	749	HG1	THR A 185	5.104	-2.480	-7.880	1.00	15.00	A	H
ATOM	750	CG2	THR A 185	4.758	-0.302	-6.522	1.00	15.00	A	C

ATOM	751	C	THR A 185	2.391	-3.317	-6.114	1.00	15.00	A	C
ATOM	752	O	THR A 185	1.230	-2.974	-5.895	1.00	15.00	A	O
ATOM	753	N	LEU A 186	2.710	-4.495	-6.655	1.00	15.00	A	N
ATOM	754	HN	LEU A 186	3.654	-4.707	-6.814	1.00	15.00	A	H
ATOM	755	CA	LEU A 186	1.692	-5.474	-7.020	1.00	15.00	A	C
ATOM	756	CB	LEU A 186	2.260	-6.507	-7.997	1.00	15.00	A	C
ATOM	757	CG	LEU A 186	2.504	-6.026	-9.430	1.00	15.00	A	C
ATOM	758	CD1	LEU A 186	3.235	-7.093	-10.232	1.00	15.00	A	C
ATOM	759	CD2	LEU A 186	1.192	-5.655	-10.104	1.00	15.00	A	C
ATOM	760	C	LEU A 186	1.136	-6.180	-5.786	1.00	15.00	A	C
ATOM	761	O	LEU A 186	-0.064	-6.428	-5.696	1.00	15.00	A	O
ATOM	762	N	GLU A 187	2.016	-6.493	-4.836	1.00	15.00	A	N
ATOM	763	HN	GLU A 187	2.959	-6.261	-4.964	1.00	15.00	A	H
ATOM	764	CA	GLU A 187	1.611	-7.171	-3.608	1.00	15.00	A	C
ATOM	765	CB	GLU A 187	2.837	-7.693	-2.853	1.00	15.00	A	C
ATOM	766	CG	GLU A 187	2.522	-8.719	-1.774	1.00	15.00	A	C
ATOM	767	CD	GLU A 187	1.872	-9.976	-2.322	1.00	15.00	A	C
ATOM	768	OE1	GLU A 187	1.072	-10.596	-1.589	1.00	15.00	A	O
ATOM	769	OE2	GLU A 187	2.162	-10.340	-3.482	1.00	15.00	A	O
ATOM	770	C	GLU A 187	0.781	-6.248	-2.718	1.00	15.00	A	C
ATOM	771	O	GLU A 187	-0.172	-6.688	-2.072	1.00	15.00	A	O
ATOM	772	N	VAL A 188	1.149	-4.966	-2.689	1.00	15.00	A	N
ATOM	773	HN	VAL A 188	1.928	-4.682	-3.212	1.00	15.00	A	H
ATOM	774	CA	VAL A 188	0.425	-3.977	-1.896	1.00	15.00	A	C
ATOM	775	CB	VAL A 188	1.212	-2.648	-1.777	1.00	15.00	A	C
ATOM	776	CG1	VAL A 188	0.372	-1.566	-1.112	1.00	15.00	A	C
ATOM	777	CG2	VAL A 188	2.500	-2.863	-0.994	1.00	15.00	A	C
ATOM	778	C	VAL A 188	-0.953	-3.719	-2.508	1.00	15.00	A	C
ATOM	779	O	VAL A 188	-1.918	-3.451	-1.797	1.00	15.00	A	O
ATOM	780	N	GLN A 189	-1.036	-3.826	-3.835	1.00	15.00	A	N
ATOM	781	HN	GLN A 189	-0.231	-4.049	-4.346	1.00	15.00	A	H
ATOM	782	CA	GLN A 189	-2.291	-3.613	-4.550	1.00	15.00	A	C
ATOM	783	CB	GLN A 189	-2.018	-3.433	-6.051	1.00	15.00	A	C
ATOM	784	CG	GLN A 189	-3.235	-3.039	-6.880	1.00	15.00	A	C
ATOM	785	CD	GLN A 189	-4.033	-4.236	-7.372	1.00	15.00	A	C
ATOM	786	OE1	GLN A 189	-3.476	-5.300	-7.647	1.00	15.00	A	O
ATOM	787	NE2	GLN A 189	-5.348	-4.068	-7.474	1.00	15.00	A	N
ATOM	788	HE21	GLN A 189	-5.724	-3.195	-7.232	1.00	15.00	A	H
ATOM	789	HE22	GLN A 189	-5.889	-4.824	-7.787	1.00	15.00	A	H
ATOM	790	C	GLN A 189	-3.272	-4.767	-4.315	1.00	15.00	A	C
ATOM	791	O	GLN A 189	-4.486	-4.559	-4.283	1.00	15.00	A	O
ATOM	792	N	LYS A 190	-2.737	-5.978	-4.141	1.00	15.00	A	N
ATOM	793	HN	LYS A 190	-1.761	-6.072	-4.168	1.00	15.00	A	H
ATOM	794	CA	LYS A 190	-3.557	-7.172	-3.918	1.00	15.00	A	C
ATOM	795	CB	LYS A 190	-2.691	-8.434	-3.937	1.00	15.00	A	C
ATOM	796	CG	LYS A 190	-2.079	-8.768	-5.287	1.00	15.00	A	C
ATOM	797	CD	LYS A 190	-1.096	-9.919	-5.161	1.00	15.00	A	C

ATOM	798	CE	LYS A 190	-0.249	-10.075	-6.412	1.00	15.00	A	C
ATOM	799	NZ	LYS A 190	0.838	-11.075	-6.218	1.00	15.00	A	N
ATOM	800	HZ1	LYS A 190	0.431	-12.008	-6.002	1.00	15.00	A	H
ATOM	801	HZ2	LYS A 190	1.451	-10.787	-5.428	1.00	15.00	A	H
ATOM	802	HZ3	LYS A 190	1.414	-11.150	-7.080	1.00	15.00	A	H
ATOM	803	C	LYS A 190	-4.337	-7.117	-2.603	1.00	15.00	A	C
ATOM	804	O	LYS A 190	-5.378	-7.761	-2.470	1.00	15.00	A	O
ATOM	805	N	SER A 191	-3.837	-6.349	-1.634	1.00	15.00	A	N
ATOM	806	HN	SER A 191	-3.009	-5.850	-1.798	1.00	15.00	A	H
ATOM	807	CA	SER A 191	-4.495	-6.236	-0.331	1.00	15.00	A	C
ATOM	808	CB	SER A 191	-3.533	-5.688	0.729	1.00	15.00	A	C
ATOM	809	OG	SER A 191	-3.219	-4.328	0.490	1.00	15.00	A	O
ATOM	810	HG	SER A 191	-2.876	-4.229	-0.401	1.00	15.00	A	H
ATOM	811	C	SER A 191	-5.776	-5.396	-0.392	1.00	15.00	A	C
ATOM	812	O	SER A 191	-6.553	-5.369	0.563	1.00	15.00	A	O
ATOM	813	N	PHE A 192	-5.990	-4.718	-1.518	1.00	15.00	A	N
ATOM	814	HN	PHE A 192	-5.330	-4.777	-2.241	1.00	15.00	A	H
ATOM	815	CA	PHE A 192	-7.178	-3.885	-1.709	1.00	15.00	A	C
ATOM	816	CB	PHE A 192	-6.834	-2.658	-2.559	1.00	15.00	A	C
ATOM	817	CG	PHE A 192	-5.948	-1.652	-1.883	1.00	15.00	A	C
ATOM	818	CD1	PHE A 192	-6.495	-0.559	-1.234	1.00	15.00	A	C
ATOM	819	CD2	PHE A 192	-4.571	-1.792	-1.906	1.00	15.00	A	C
ATOM	820	CE1	PHE A 192	-5.685	0.375	-0.618	1.00	15.00	A	C
ATOM	821	CE2	PHE A 192	-3.755	-0.862	-1.291	1.00	15.00	A	C
ATOM	822	CZ	PHE A 192	-4.314	0.223	-0.646	1.00	15.00	A	C
ATOM	823	C	PHE A 192	-8.291	-4.668	-2.405	1.00	15.00	A	C
ATOM	824	O	PHE A 192	-9.431	-4.208	-2.485	1.00	15.00	A	O
ATOM	825	N	VAL A 193	-7.950	-5.853	-2.903	1.00	15.00	A	N
ATOM	826	HN	VAL A 193	-7.030	-6.169	-2.784	1.00	15.00	A	H
ATOM	827	CA	VAL A 193	-8.902	-6.700	-3.622	1.00	15.00	A	C
ATOM	828	CB	VAL A 193	-8.180	-7.514	-4.724	1.00	15.00	A	C
ATOM	829	CG1	VAL A 193	-9.171	-8.211	-5.643	1.00	15.00	A	C
ATOM	830	CG2	VAL A 193	-7.249	-6.619	-5.528	1.00	15.00	A	C
ATOM	831	C	VAL A 193	-9.646	-7.658	-2.682	1.00	15.00	A	C
ATOM	832	O	VAL A 193	-10.687	-8.211	-3.040	1.00	15.00	A	O
ATOM	833	N	SER A 194	-9.122	-7.834	-1.473	1.00	15.00	A	N
ATOM	834	HN	SER A 194	-8.307	-7.348	-1.230	1.00	15.00	A	H
ATOM	835	CA	SER A 194	-9.729	-8.741	-0.496	1.00	15.00	A	C
ATOM	836	CB	SER A 194	-8.703	-9.143	0.565	1.00	15.00	A	C
ATOM	837	OG	SER A 194	-7.575	-9.764	-0.028	1.00	15.00	A	O
ATOM	838	HG	SER A 194	-7.718	-9.854	-0.973	1.00	15.00	A	H
ATOM	839	C	SER A 194	-10.985	-8.168	0.173	1.00	15.00	A	C
ATOM	840	O	SER A 194	-11.582	-8.818	1.033	1.00	15.00	A	O
ATOM	841	N	ASP A 195	-11.392	-6.965	-0.222	1.00	15.00	A	N
ATOM	842	HN	ASP A 195	-10.888	-6.492	-0.917	1.00	15.00	A	H
ATOM	843	CA	ASP A 195	-12.575	-6.331	0.361	1.00	15.00	A	C
ATOM	844	CB	ASP A 195	-12.264	-4.891	0.776	1.00	15.00	A	C

ATOM	845	CG ASP A 195	-11.266	-4.816	1.914	1.00	15.00	A	C
ATOM	846	OD1 ASP A 195	-11.692	-4.914	3.084	1.00	15.00	A	O
ATOM	847	OD2 ASP A 195	-10.059	-4.663	1.635	1.00	15.00	A	O
ATOM	848	C ASP A 195	-13.772	-6.358	-0.591	1.00	15.00	A	C
ATOM	849	O ASP A 195	-14.680	-5.532	-0.481	1.00	15.00	A	O
ATOM	850	N GLU A 196	-13.780	-7.320	-1.511	1.00	15.00	A	N
ATOM	851	HN GLU A 196	-13.036	-7.957	-1.543	1.00	15.00	A	H
ATOM	852	CA GLU A 196	-14.868	-7.443	-2.480	1.00	15.00	A	C
ATOM	853	CB GLU A 196	-14.311	-7.734	-3.880	1.00	15.00	A	C
ATOM	854	CG GLU A 196	-13.336	-6.696	-4.409	1.00	15.00	A	C
ATOM	855	CD GLU A 196	-13.176	-6.769	-5.916	1.00	15.00	A	C
ATOM	856	OE1 GLU A 196	-14.085	-6.298	-6.632	1.00	15.00	A	O
ATOM	857	OE2 GLU A 196	-12.143	-7.294	-6.380	1.00	15.00	A	O
ATOM	858	C GLU A 196	-15.860	-8.546	-2.102	1.00	15.00	A	C
ATOM	859	O GLU A 196	-16.843	-8.766	-2.811	1.00	15.00	A	O
ATOM	860	N VAL A 197	-15.615	-9.233	-0.986	1.00	15.00	A	N
ATOM	861	HN VAL A 197	-14.836	-9.000	-0.440	1.00	15.00	A	H
ATOM	862	CA VAL A 197	-16.489	-10.333	-0.565	1.00	15.00	A	C
ATOM	863	CB VAL A 197	-15.713	-11.674	-0.499	1.00	15.00	A	C
ATOM	864	CG1 VAL A 197	-16.649	-12.861	-0.683	1.00	15.00	A	C
ATOM	865	CG2 VAL A 197	-14.596	-11.714	-1.534	1.00	15.00	A	C
ATOM	866	C VAL A 197	-17.175	-10.078	0.786	1.00	15.00	A	C
ATOM	867	O VAL A 197	-18.036	-10.853	1.204	1.00	15.00	A	O
ATOM	868	N ILE A 198	-16.812	-8.992	1.461	1.00	15.00	A	N
ATOM	869	HN ILE A 198	-16.141	-8.388	1.082	1.00	15.00	A	H
ATOM	870	CA ILE A 198	-17.397	-8.685	2.769	1.00	15.00	A	C
ATOM	871	CB ILE A 198	-16.378	-8.007	3.708	1.00	15.00	A	C
ATOM	872	CG1 ILE A 198	-15.767	-6.769	3.039	1.00	15.00	A	C
ATOM	873	CG2 ILE A 198	-15.294	-8.993	4.117	1.00	15.00	A	C
ATOM	874	CD1 ILE A 198	-14.916	-5.924	3.963	1.00	15.00	A	C
ATOM	875	C ILE A 198	-18.657	-7.820	2.681	1.00	15.00	A	C
ATOM	876	O ILE A 198	-19.273	-7.516	3.702	1.00	15.00	A	O
ATOM	877	N VAL A 199	-19.050	-7.440	1.469	1.00	15.00	A	N
ATOM	878	HN VAL A 199	-18.544	-7.736	0.683	1.00	15.00	A	H
ATOM	879	CA VAL A 199	-20.228	-6.590	1.286	1.00	15.00	A	C
ATOM	880	CB VAL A 199	-19.886	-5.315	0.490	1.00	15.00	A	C
ATOM	881	CG1 VAL A 199	-19.049	-4.368	1.336	1.00	15.00	A	C
ATOM	882	CG2 VAL A 199	-19.161	-5.665	-0.802	1.00	15.00	A	C
ATOM	883	C VAL A 199	-21.389	-7.313	0.607	1.00	15.00	A	C
ATOM	884	O VAL A 199	-22.176	-6.691	-0.110	1.00	15.00	A	O
ATOM	885	N SER A 200	-21.515	-8.613	0.848	1.00	15.00	A	N
ATOM	886	HN SER A 200	-20.879	-9.054	1.450	1.00	15.00	A	H
ATOM	887	CA SER A 200	-22.589	-9.394	0.243	1.00	15.00	A	C
ATOM	888	CB SER A 200	-22.190	-9.889	-1.153	1.00	15.00	A	C
ATOM	889	OG SER A 200	-22.140	-8.821	-2.088	1.00	15.00	A	O
ATOM	890	HG SER A 200	-22.902	-8.866	-2.673	1.00	15.00	A	H
ATOM	891	C SER A 200	-23.010	-10.564	1.129	1.00	15.00	A	C

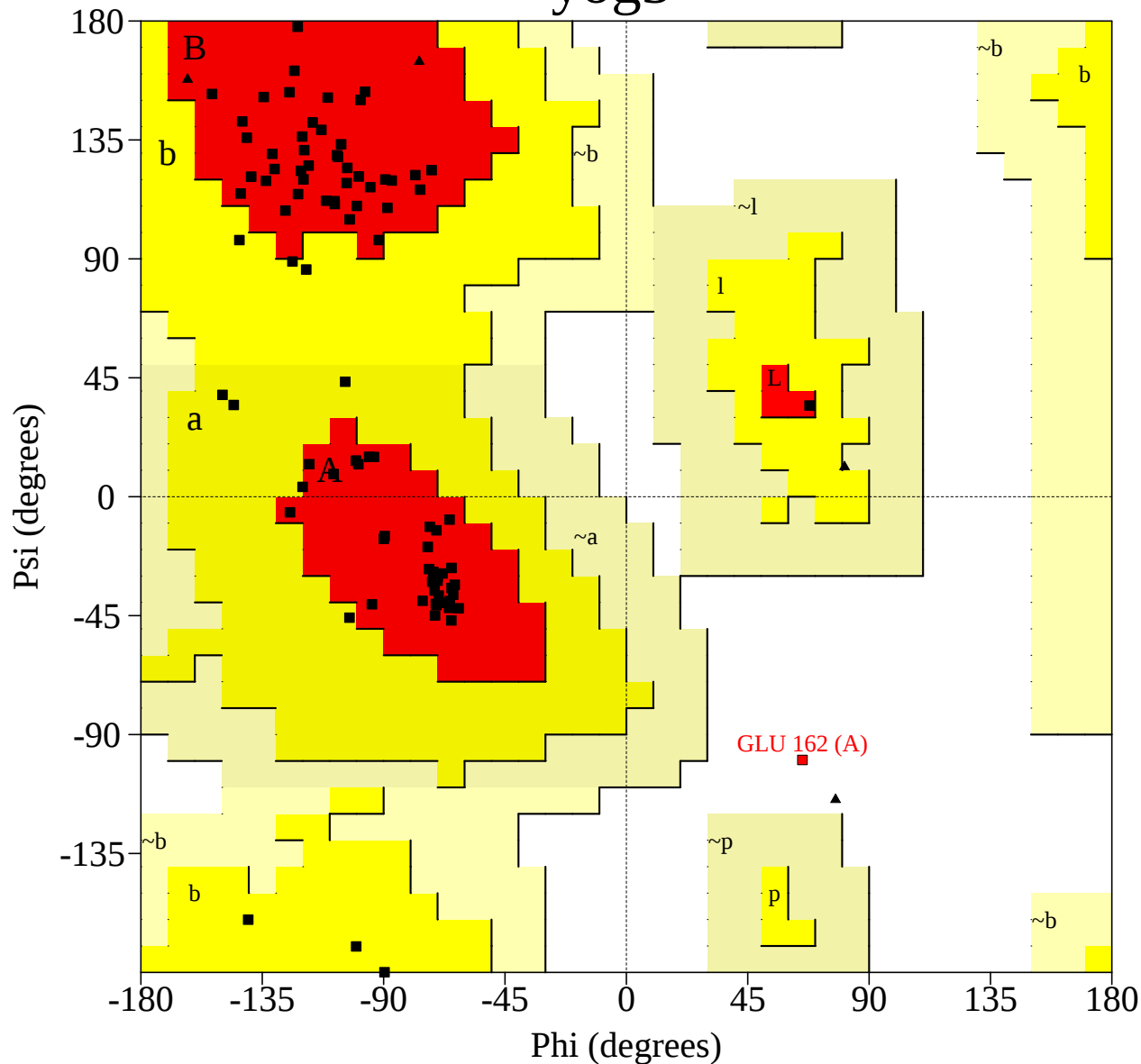
ATOM	892	O	SER A 200	-23.300	-11.654	0.633	1.00	15.00	A	O
ATOM	893	N	THR A 201	-23.060	-10.334	2.438	1.00	15.00	A	N
ATOM	894	HN	THR A 201	-22.837	-9.442	2.781	1.00	15.00	A	H
ATOM	895	CA	THR A 201	-23.458	-11.376	3.375	1.00	15.00	A	C
ATOM	896	CB	THR A 201	-22.245	-12.183	3.916	1.00	15.00	A	C
ATOM	897	OG1	THR A 201	-21.068	-11.362	3.963	1.00	15.00	A	O
ATOM	898	HG1	THR A 201	-21.048	-10.776	3.205	1.00	15.00	A	H
ATOM	899	CG2	THR A 201	-21.975	-13.418	3.062	1.00	15.00	A	C
ATOM	900	C	THR A 201	-24.277	-10.798	4.537	1.00	15.00	A	C
ATOM	901	O	THR A 201	-23.696	-10.283	5.492	1.00	15.00	A	O
ATOM	902	N	ASN A 202	-25.629	-10.900	4.407	1.00	15.00	A	N
ATOM	903	HN	ASN A 202	-25.974	-11.334	3.596	1.00	15.00	A	H
ATOM	904	CA	ASN A 202	-26.633	-10.414	5.395	1.00	15.00	A	C
ATOM	905	CB	ASN A 202	-26.048	-9.723	6.639	1.00	15.00	A	C
ATOM	906	CG	ASN A 202	-25.920	-10.668	7.823	1.00	15.00	A	C
ATOM	907	OD1	ASN A 202	-25.803	-11.884	7.653	1.00	15.00	A	O
ATOM	908	ND2	ASN A 202	-25.926	-10.112	9.032	1.00	15.00	A	N
ATOM	909	HD21	ASN A 202	-26.002	-9.136	9.091	1.00	15.00	A	H
ATOM	910	HD22	ASN A 202	-25.883	-10.704	9.817	1.00	15.00	A	H
ATOM	911	C	ASN A 202	-27.700	-9.537	4.745	1.00	15.00	A	C
ATOM	912	O	ASN A 202	-27.394	-8.532	4.103	1.00	15.00	A	O
ATOM	913	CAT	UNK B 1	-15.066	-1.512	2.893	1.00	15.00	B	C
ATOM	914	CBG	UNK B 1	-15.597	-1.373	4.171	1.00	15.00	B	C
ATOM	915	CBF	UNK B 1	-15.527	-0.148	4.824	1.00	15.00	B	C
ATOM	916	CBK	UNK B 1	-14.926	0.940	4.199	1.00	15.00	B	C
ATOM	917	CAV	UNK B 1	-14.395	0.801	2.921	1.00	15.00	B	C
ATOM	918	CAQ	UNK B 1	-14.467	-0.424	2.269	1.00	15.00	B	C
ATOM	919	SAA	UNK B 1	-13.810	-0.597	0.655	1.00	15.00	B	S
ATOM	920	OAD	UNK B 1	-13.309	0.733	0.175	1.00	15.00	B	O
ATOM	921	OAF	UNK B 1	-12.676	-1.579	0.675	1.00	15.00	B	O
ATOM	922	NAJ	UNK B 1	-14.980	-1.134	-0.346	1.00	15.00	B	N
ATOM	923	HAB	UNK B 1	-14.568	-1.556	-1.153	1.00	15.00	B	H
ATOM	924	CAL	UNK B 1	-15.860	-0.026	-0.743	1.00	15.00	B	C
ATOM	925	CAN	UNK B 1	-17.109	-0.567	-1.444	1.00	15.00	B	C
ATOM	926	CAP	UNK B 1	-18.154	0.293	-1.761	1.00	15.00	B	C
ATOM	927	CBA	UNK B 1	-19.293	-0.199	-2.387	1.00	15.00	B	C
ATOM	928	CAX	UNK B 1	-19.386	-1.551	-2.699	1.00	15.00	B	C
ATOM	929	CAY	UNK B 1	-18.342	-2.411	-2.379	1.00	15.00	B	C
ATOM	930	CAU	UNK B 1	-17.203	-1.919	-1.753	1.00	15.00	B	C
ATOM	931	NAI	UNK B 1	-16.249	0.766	0.435	1.00	15.00	B	N
ATOM	932	HAA	UNK B 1	-17.219	0.622	0.634	1.00	15.00	B	H
ATOM	933	CAM	UNK B 1	-16.015	2.039	0.128	1.00	15.00	B	C
ATOM	934	CAR	UNK B 1	-16.362	3.113	0.939	1.00	15.00	B	C
ATOM	935	CAS	UNK B 1	-16.928	2.886	2.189	1.00	15.00	B	C
ATOM	936	CBD	UNK B 1	-17.245	3.957	3.015	1.00	15.00	B	C
ATOM	937	CBB	UNK B 1	-16.997	5.258	2.592	1.00	15.00	B	C
ATOM	938	CBE	UNK B 1	-16.433	5.486	1.342	1.00	15.00	B	C

ATOM	939	CAW UNK B	1	-16.117	4.414	0.517	1.00	15.00	B	C
ATOM	940	CAK UNK B	1	-15.308	2.158	-1.062	1.00	15.00	B	C
ATOM	941	OAC UNK B	1	-14.892	3.210	-1.542	1.00	15.00	B	O
ATOM	942	NAH UNK B	1	-15.166	0.955	-1.606	1.00	15.00	B	N
ATOM	943	SAB UNK B	1	-14.379	0.643	-2.999	1.00	15.00	B	S
ATOM	944	OAE UNK B	1	-12.969	1.143	-2.897	1.00	15.00	B	O
ATOM	945	OAG UNK B	1	-15.072	1.347	-4.126	1.00	15.00	B	O
ATOM	946	CAO UNK B	1	-14.363	-1.078	-3.316	1.00	15.00	B	C
ATOM	947	CAZ UNK B	1	-15.340	-1.651	-4.122	1.00	15.00	B	C
ATOM	948	CBI UNK B	1	-15.328	-3.021	-4.358	1.00	15.00	B	C
ATOM	949	CBJ UNK B	1	-14.340	-3.817	-3.789	1.00	15.00	B	C
ATOM	950	CBH UNK B	1	-13.362	-3.244	-2.985	1.00	15.00	B	C
ATOM	951	CBC UNK B	1	-13.374	-1.873	-2.750	1.00	15.00	B	C

END

Ramachandran Plot

yog3



Plot statistics

Residues in most favoured regions [A,B,L]	78	86.7%
Residues in additional allowed regions [a,b,l,p]	11	12.2%
Residues in generously allowed regions [~a,~b,~l,~p]	0	0.0%
Residues in disallowed regions	1	1.1%

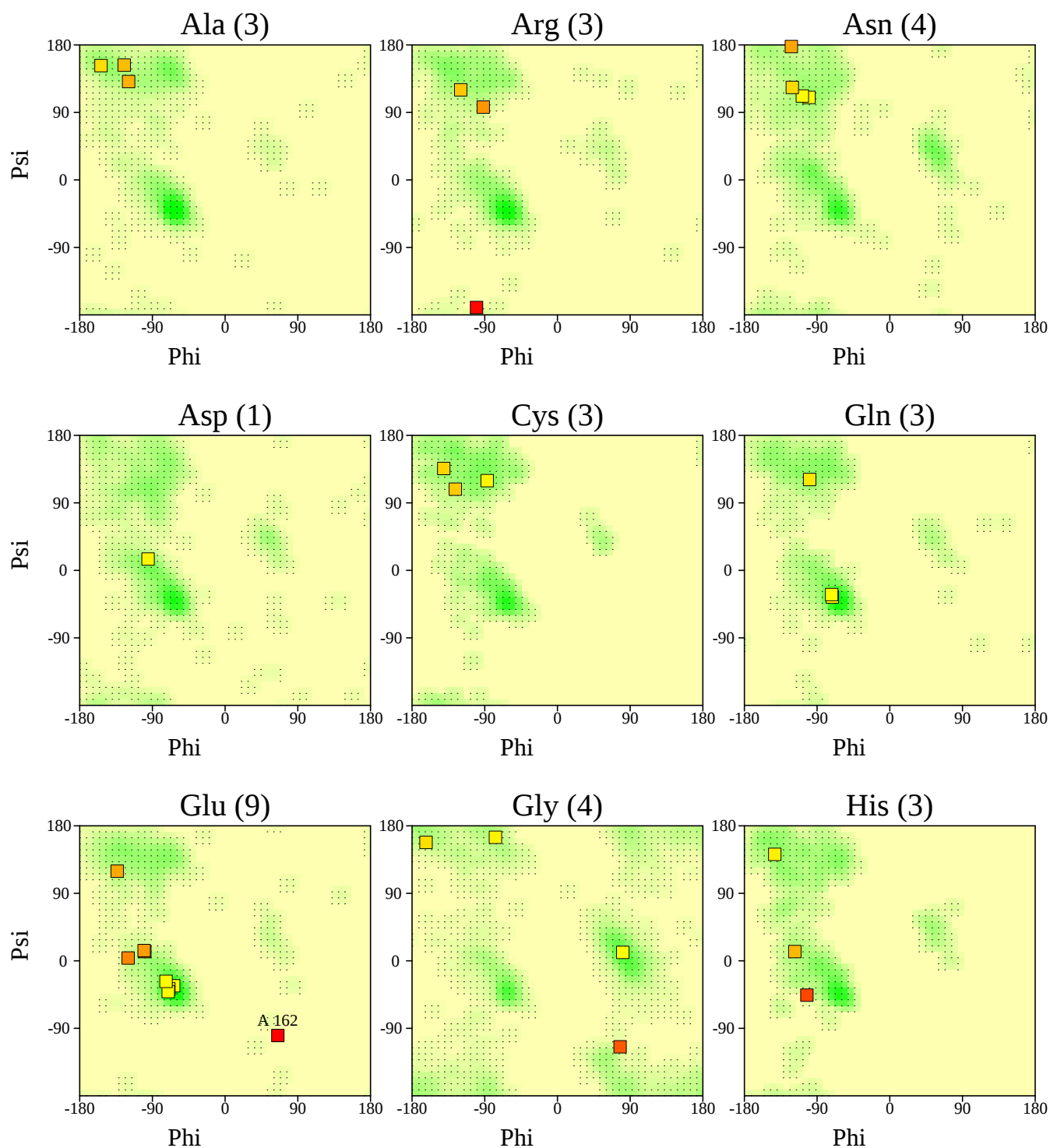
Number of non-glycine and non-proline residues	90	100.0%
Number of end-residues (excl. Gly and Pro)	3	
Number of glycine residues (shown as triangles)	4	
Number of proline residues	1	

Total number of residues	98	

Based on an analysis of 118 structures of resolution of at least 2.0 Angstroms and R-factor no greater than 20%, a good quality model would be expected to have over 90% in the most favoured regions.

Ramachandran plots for all residue types

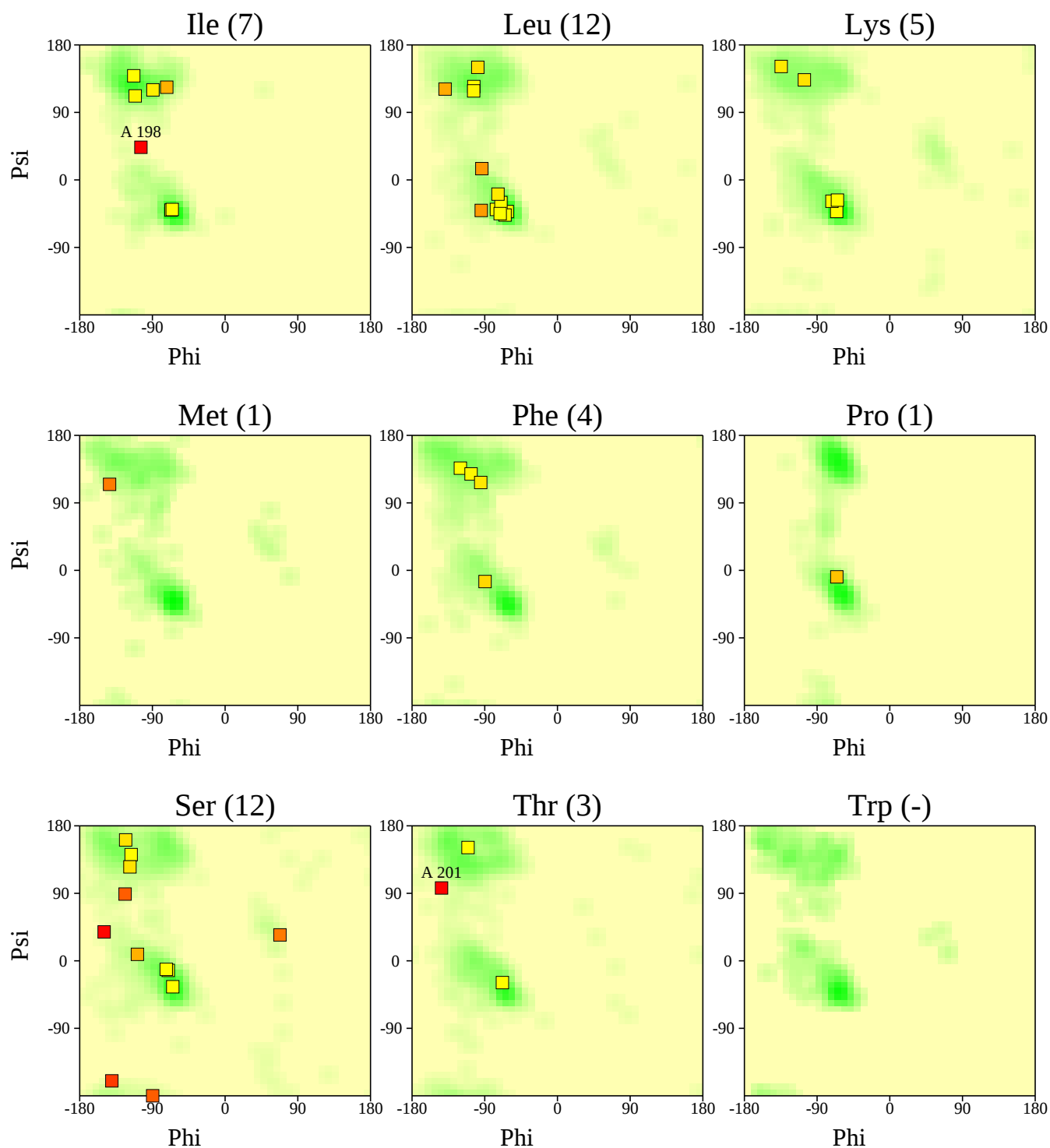
yog3



Numbers of residues are shown in brackets. Those in unfavourable conformations (score < -3.00) are labelled. Shading shows favourable conformations as obtained from an analysis of 163 structures at resolution 2.0Å or better.

Ramachandran plots for all residue types

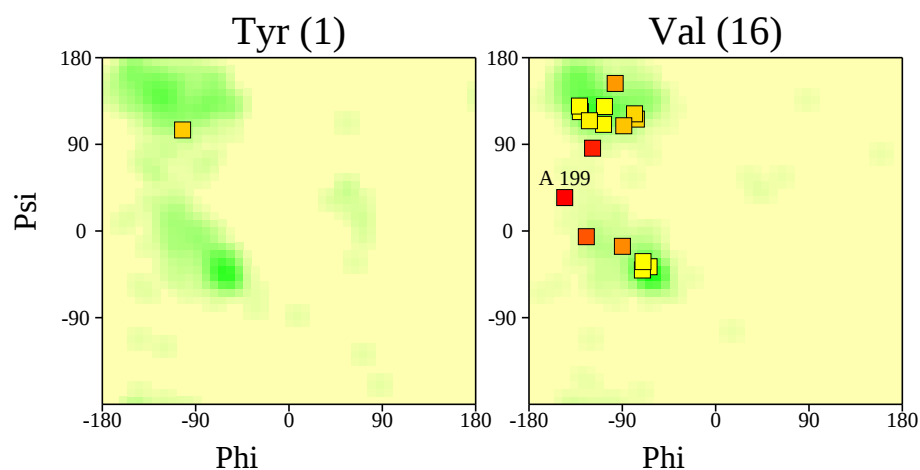
yog3



Numbers of residues are shown in brackets. Those in unfavourable conformations (score < -3.00) are labelled. Shading shows favourable conformations as obtained from an analysis of 163 structures at resolution 2.0Å or better.

Ramachandran plots for all residue types

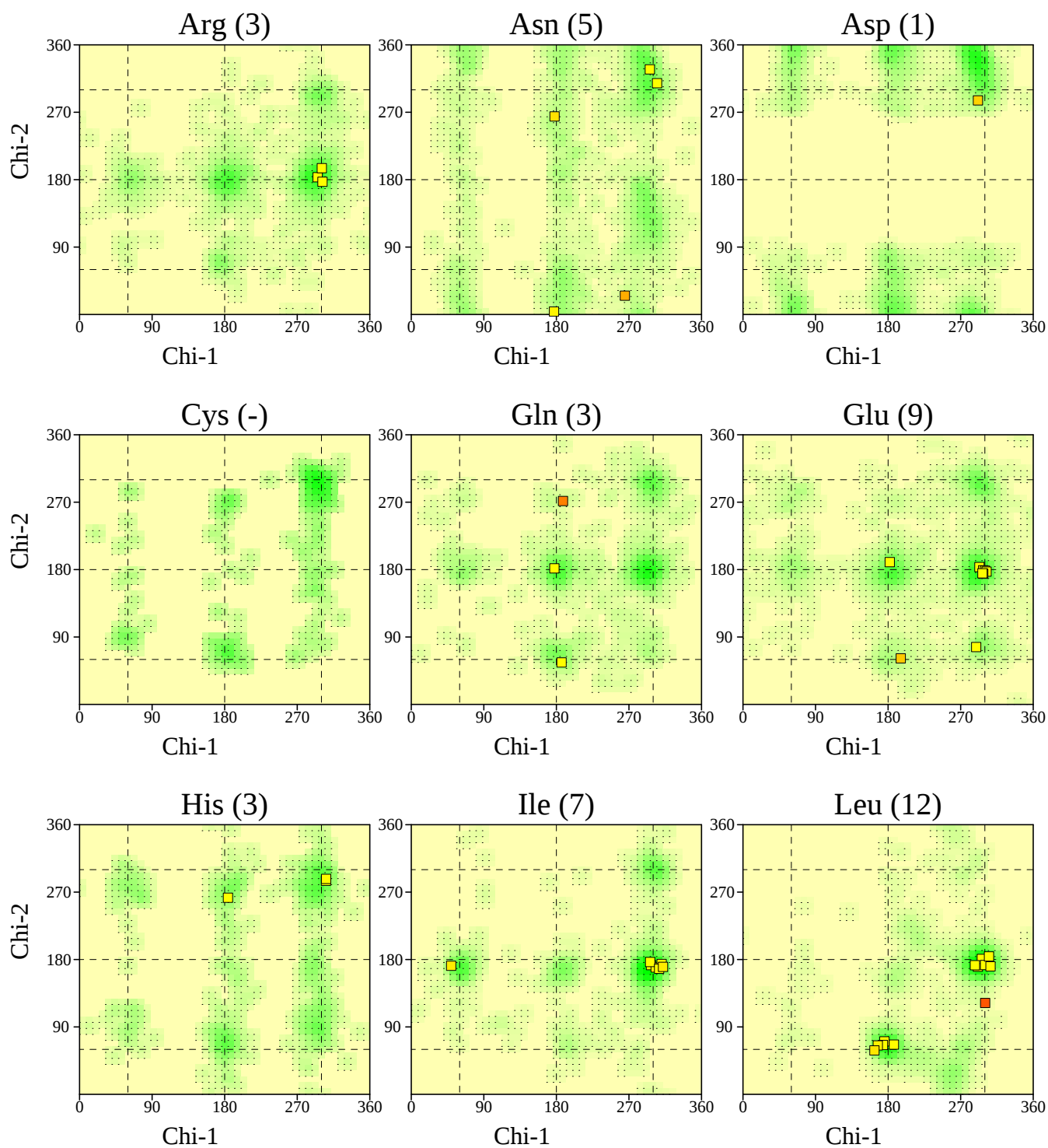
yog3



Numbers of residues are shown in brackets. Those in unfavourable conformations (score < -3.00) are labelled. Shading shows favourable conformations as obtained from an analysis of 163 structures at resolution 2.0Å or better.

Chi1-Chi2 plots

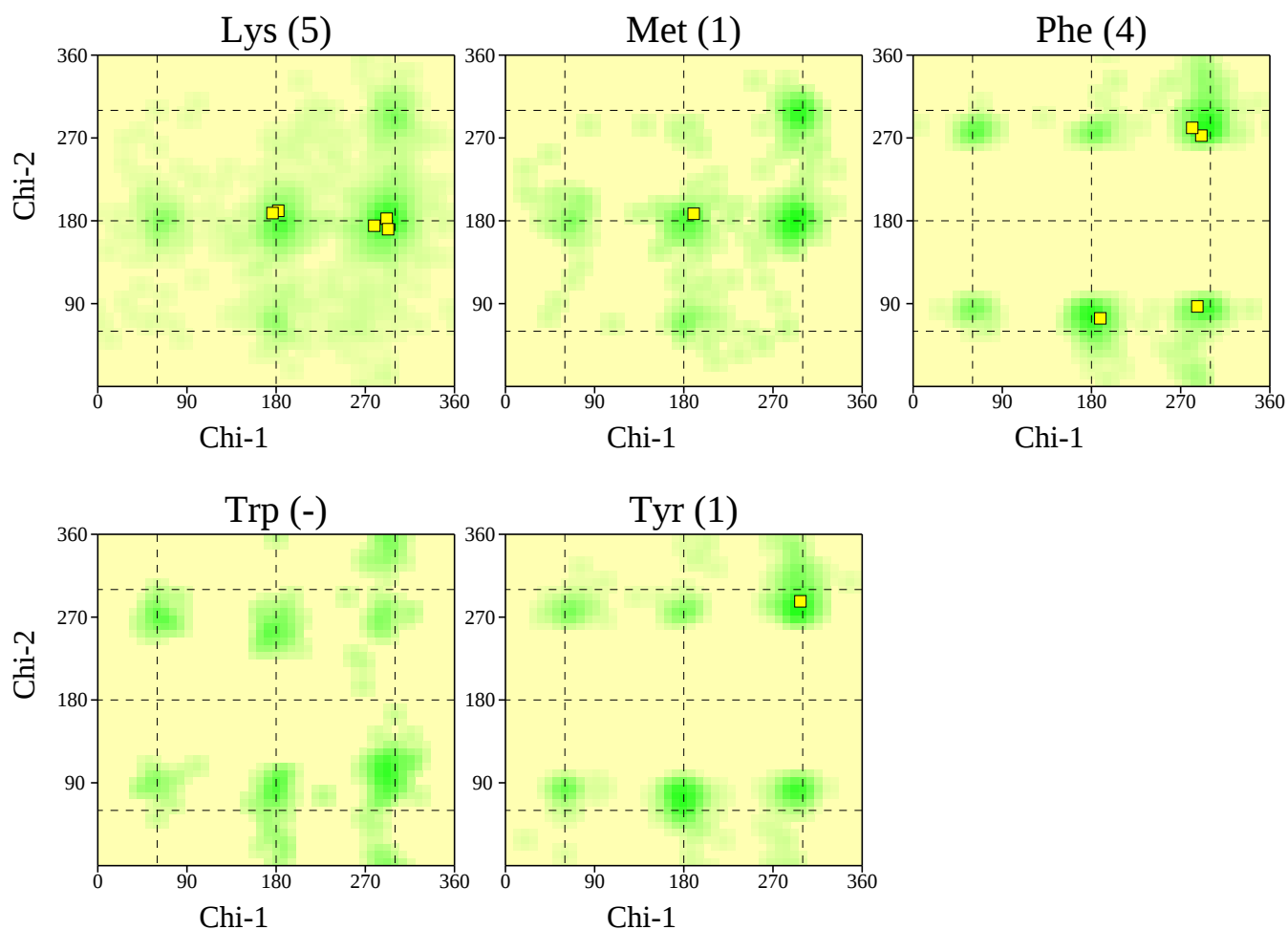
yog3



Numbers of residues are shown in brackets. Those in unfavourable conformations (score < -3.00) are labelled. Shading shows favourable conformations as obtained from an analysis of 163 structures at resolution 2.0Å or better.

Chi1-Chi2 plots

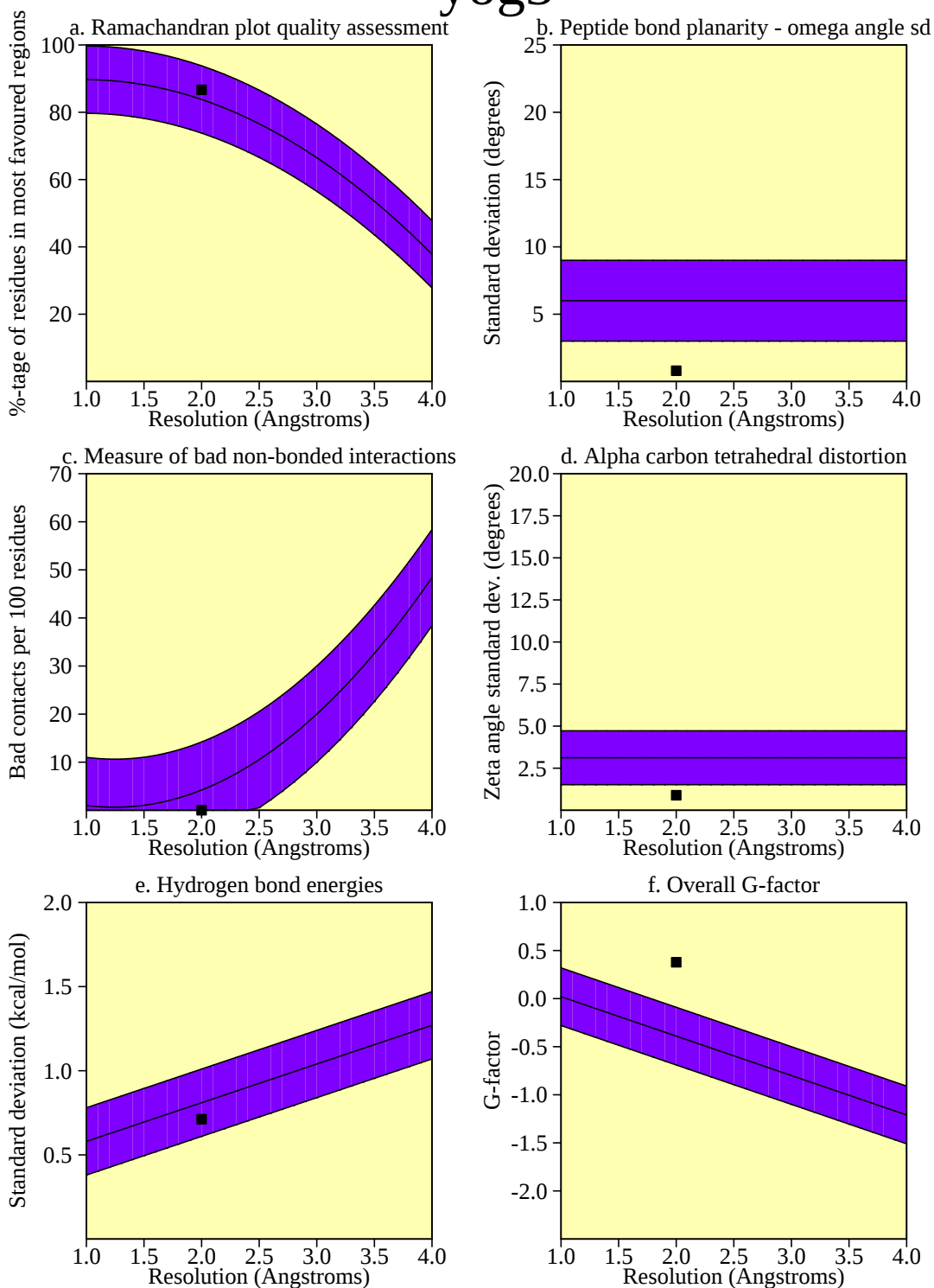
yog3



Numbers of residues are shown in brackets. Those in unfavourable conformations (score < -3.00) are labelled. Shading shows favourable conformations as obtained from an analysis of 163 structures at resolution 2.0Å or better.

Main-chain parameters

yog3

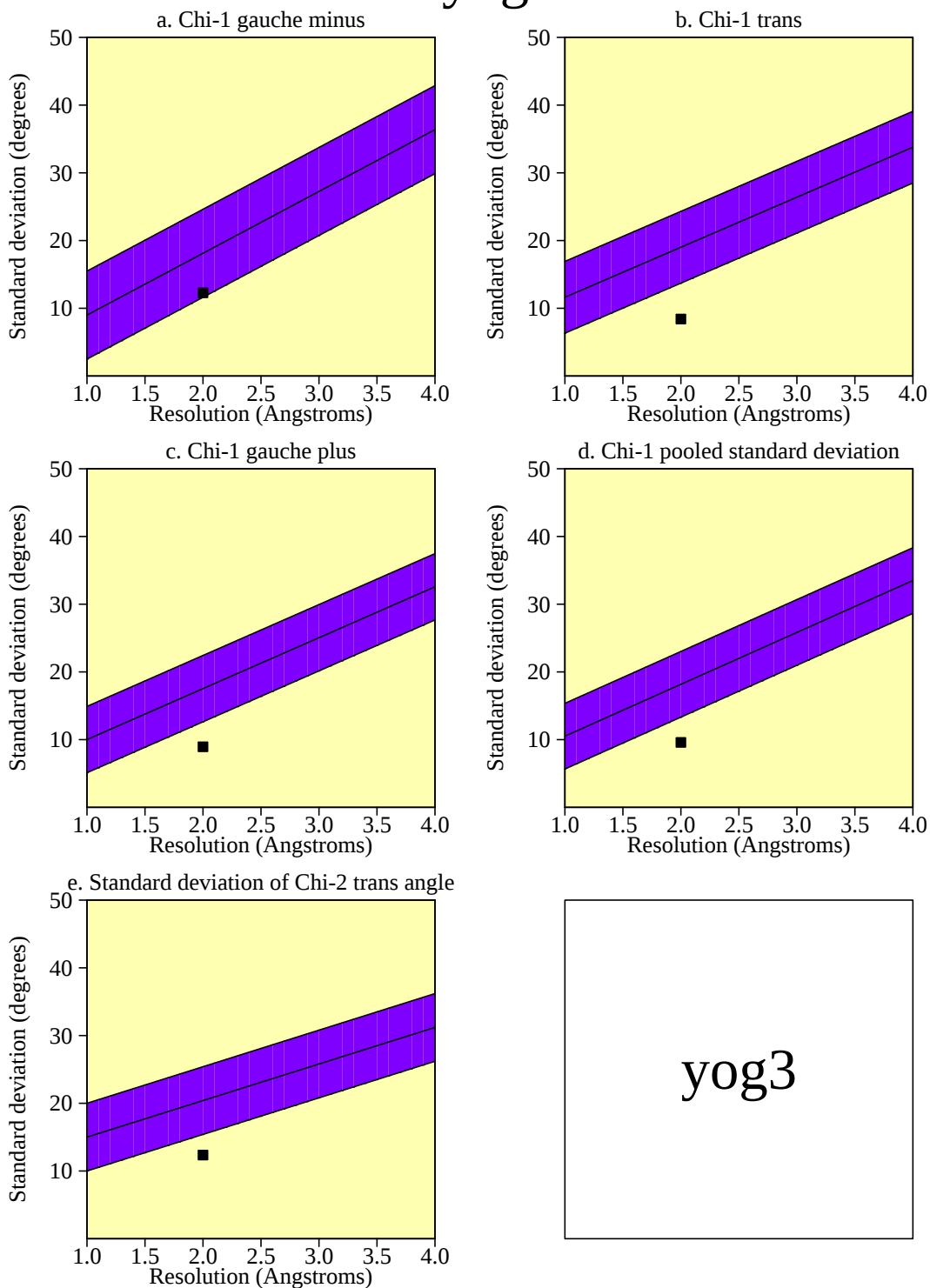


Plot statistics

Stereochemical parameter	No. of data pts	Parameter value	Comparison values Typical value	Band width	No. of band widths from mean	
a. %-tage residues in A, B, L	90	86.7	83.8	10.0	0.3	Inside
b. Omega angle st dev	96	0.8	6.0	3.0	-1.7	BETTER
c. Bad contacts / 100 residues	0	0.0	4.2	10.0	-0.4	Inside
d. Zeta angle st dev	93	0.9	3.1	1.6	-1.4	BETTER
e. H-bond energy st dev	68	0.7	0.8	0.2	-0.5	Inside
f. Overall G-factor	98	0.4	-0.4	0.3	2.6	BETTER

Side-chain parameters

yog3



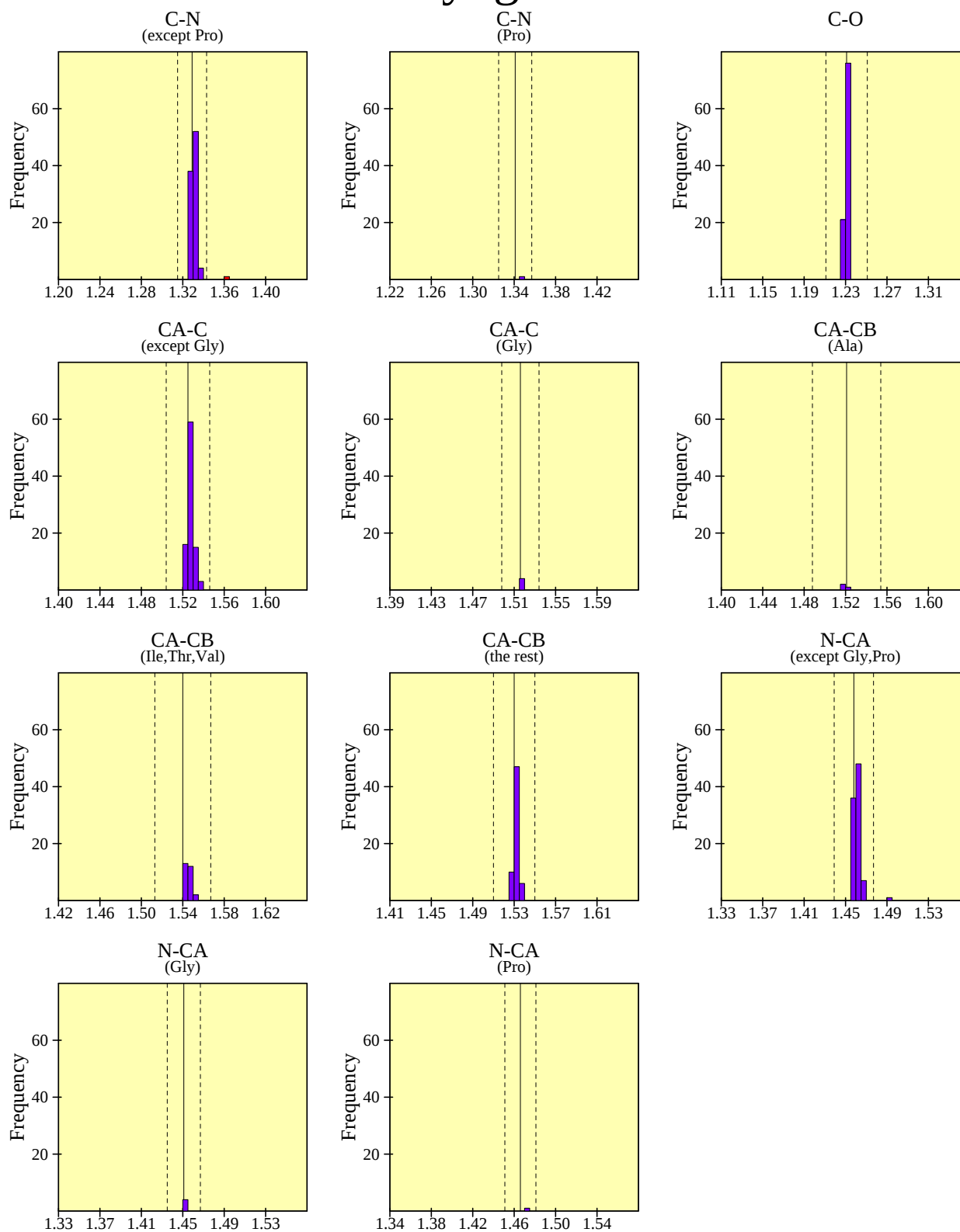
yog3

Plot statistics

Stereochemical parameter	No. of data pts	Parameter value	Comparison values		No. of band widths from mean	
			Typical value	Band width		
a. Chi-1 gauche minus st dev	10	12.3	18.1	6.5	-0.9	Inside
b. Chi-1 trans st dev	35	8.4	19.0	5.3	-2.0	BETTER
c. Chi-1 gauche plus st dev	44	8.9	17.5	4.9	-1.8	BETTER
d. Chi-1 pooled st dev	89	9.6	18.2	4.8	-1.8	BETTER
e. Chi-2 trans st dev	31	12.4	20.4	5.0	-1.6	BETTER

Main-chain bond lengths

yog3



Black bars > 2.0 st. devs. from mean.

Solid and dashed lines represent the mean and standard deviation values as per Engh & Huber small-molecule data.