

Table S5. The AMBER atom types and RESP charges of the 100 protein-bound ligands. The atom labels are shown in Figures S7–S13.

13gs			H19	HC	0.065	N4	NB	-0.652	C2	C	0.455
N1	NA	-0.009	H20	HC	0.065	C1	CV	1.277	O1	O	-0.476
H1	H	0.300	H21	H	0.217	C2	CA	-0.616	N2	N	-0.521
C1	CA	-0.151	C9	C*	-0.027	C7	CA	-0.021	H14	H	0.324
H2	H4	0.218	C8	C*	-0.112	C6	CA	-0.075	C7	CT	0.109
C2	CA	-0.047	H13	HA	0.169	C5	CA	-0.247	C9	CT	-0.067
H3	HA	0.180	C6	CA	-0.089	C4	CA	-0.144	C10	CA	-0.026
C3	CA	0.021	S2	S	0.148	H1	HA	0.107	C11	CA	-0.127
H14	HA	0.160	C7	CA	-0.187	H2	HA	0.135	C13	CA	-0.165
C4	CA	-0.087	S3	SY	1.168	H3	HA	0.098	C15	CA	-0.092
H4	HA	0.151	O4	O	-0.612	H4	HA	0.076	C14	CA	-0.165
C5	CA	0.135	O5	O	-0.612	C3	CA	0.305	C12	CA	-0.127
N2	NH	-0.530	N2	NT	-0.979	C8	CA	-0.149	H19	HA	0.133
H5	H	0.390	H12	H	0.379	C13	CA	-0.098	H21	HA	0.155
S1	SY	0.929				C12	CA	-0.164	H22	HA	0.144
O1	O	-0.485				H7	HA	0.139	H20	HA	0.155
O2	O	-0.485	1a4k			H8	HA	0.123	H18	HA	0.133
C6	CA	-0.005	C1	CT	-0.405	C9	CA	-0.098	H16	HC	0.060
C9	CA	-0.168	H1	HC	0.114	H5	HA	0.123	H17	HC	0.060
H8	HA	0.171	H2	HC	0.114	C10	CA	-0.164	H15	H1	0.098
C10	CA	-0.212	H3	HC	0.114	H6	HA	0.139	C8	C	0.576
H9	HA	0.175	C2	C	0.687	C11	CA	-0.025	O2	O	-0.600
C7	CA	-0.168	O1	O	-0.547	C14	CT	0.011	N3	N	-0.463
H6	HA	0.171	N1	N	-0.429	H9	H1	0.060	H23	H	0.311
C8	CA	-0.212	H4	H	0.249	H10	H1	0.060	C16	CT	-0.051
H7	HA	0.175	C3	CA	0.107	N5	N*	0.016	H24	H1	0.113
C11	CA	0.370	C6	CA	-0.127	C15	CA	0.228	H25	H1	0.113
N3	NE	-0.343	H7	HA	0.141	C16	CT	-0.160	C17	CA	0.031
N4	NF	0.017	C7	CA	-0.234	C17	CT	0.009	C18	CA	-0.174
C12	CA	0.083	H8	HA	0.179	C18	CT	0.050	H26	HA	0.161
C13	CA	-0.142	C4	CA	-0.127	C19	CT	0.039	C19	CA	-0.209
H10	HA	0.012	H6	HA	0.141	H17	HC	-0.024	H27	HA	0.174
C14	CA	0.031	C5	CA	-0.234	H18	HC	-0.024	C20	CA	0.310
C15	C	0.752	H5	HA	0.179	H19	HC	-0.024	F1	F	-0.187
O3	O	-0.718	C8	CA	0.149	H15	HC	-0.008	C21	CA	-0.209
O4	O	-0.718	N2	N	-0.039	H16	HC	-0.008	H28	HA	0.174
C16	CA	0.240	C10	C	0.403	H13	HC	-0.015	C22	CA	-0.174
O5	OH	-0.499	O3	O	-0.518	H14	HC	-0.015	H29	HA	0.161
H11	HO	0.417	C9	C	0.386	H11	HC	0.136			
C17	CA	-0.363	O2	O	-0.488	H12	HC	0.136			
H12	HA	0.178	C17	CT	0.004	N6	NC	-0.531	1a0e		
C18	CA	-0.059	H19	HC	0.074	C20	CA	0.307	N5	NH	-0.975
H13	HA	0.125	C11	CT	-0.144	C21	CM	-0.267	H7	H	0.463
			H18	HC	0.077	H20	HA	0.166	H8	H	0.463
			C12	CT	0.102	C22	CA	-0.155	C4	CA	0.766
			C15	CT	-0.116	H21	HA	0.172	N2	NA	-0.330
1a42			C16	CT	-0.164	C23	CA	0.288	H20	H	0.334
C1	CT	-0.058	H13	HC	0.082	O1	OH	-0.619	N1	NC	-0.607
H1	HC	0.026	H14	HC	0.082	H22	HO	0.444	C3	CM	0.559
H2	HC	0.026	H15	HC	0.034	C24	CA	-0.313	N3	NH	-0.764
H3	HC	0.026	H16	HC	0.034	H23	HA	0.178	H1	H	0.407
C2	CT	0.176	H17	HC	0.010	C25	CA	-0.047	H2	H	0.407
H4	H1	0.026	C13	CT	-0.116	C26	C	0.430	C2	CA	0.033
H5	H1	0.026	H11	HC	0.034	O2	O	-0.556	C1	CA	0.040
O1	OS	-0.450	H12	HC	0.034				C5	CA	-0.271
C3	CT	0.134	C14	CT	-0.164				H3	HA	0.197
H6	H1	0.075	H9	HC	0.082	1afq			C6	CA	-0.136
H7	H1	0.075	H10	HC	0.082	C5	CT	-0.099	H4	HA	0.185
C4	CT	-0.045	C18	CT	0.409	H7	HC	0.034	C7	CB	0.070
H8	H1	0.113	N3	N	-0.849	H8	HC	0.034	C8	CB	-0.007
H9	H1	0.113	H20	H	0.383	H9	HC	0.034	C9	C*	-0.430
N1	NT	-0.271	C19	C	0.905	C4	CT	0.107	H5	HA	0.204
S1	SY	0.759	O4	O	-0.604	C6	CT	-0.099	C10	CA	-0.035
O2	O	-0.439	O5	OS	-0.452	H10	HC	0.034	H6	H4	0.202
O3	O	-0.439	C20	CT	0.062	H11	HC	0.034	N4	N*	0.085
C5	CT	-0.218	H21	H1	0.029	H12	HC	0.034	C11	CT	-0.011
H10	H1	0.150	H22	H1	0.029	H6	HC	0.065	C14	CT	-0.150
H11	H1	0.150	C21	C	0.855	C3	CT	-0.309	C15	CT	-0.046
C10	CT	0.000	O7	O	-0.807	H4	HC	0.140	H17	HC	0.024
H14	HP	0.123	O6	O	-0.807	H5	HC	0.140	H18	HC	0.024
N3	N3	-0.008				C1	CT	-0.005	H19	HC	0.024
H15	H	0.217				N1	N3	-0.421	H15	HC	0.074
C11	CT	0.035	1a8t			H1	H	0.339	H16	HC	0.074
H16	HP	0.074	N1	NB	-0.652	H2	H	0.339	H9	H1	0.103
H17	HP	0.074	N2	NB	-0.192	H13	H	0.339	C12	CT	-0.150
C12	CT	-0.128	N3	NB	-0.192	H3	HP	0.145	H10	HC	0.074
H18	HC	0.065									

Local Minimum Conformation

C10	CA	0.055	C11	CT	-0.034	1dib		H9	HC	0.117	
C7	C*	-0.180	H11	H1	0.060	O1	O	-0.626	H10	HC	0.117
S1	S	-0.090	H12	H1	0.060	C1	C	0.698	C10	CA	-0.045
C3	CB	0.030	C12	CT	-0.055	N1	N	-0.322	C11	CA	-0.256
C2	CA	-0.287	H9	HC	0.033	C2	CA	-0.002	H11	HA	0.145
H1	HA	0.212	H10	HC	0.033	C3	CA	0.251	C16	CA	0.301
C1	CA	0.274	C15	CT	0.066	O2	OH	-0.497	O2	OS	-0.332
O3	OH	-0.560	H17	HC	0.020	H20	HO	0.504	C17	CT	0.007
H37	HO	0.433	C16	CT	-0.104	N2	NA	-0.233	H17	H1	0.071
C6	CA	-0.152	H18	HC	0.049	H1	H	0.327	H18	H1	0.071
H3	HA	0.167	H19	HC	0.049	C4	CA	0.683	H19	H1	0.071
C5	CA	-0.208	C17	CA	0.034	N3	NH	-0.943	C15	CA	-0.225
H2	HA	0.150	C18	CA	-0.143	H2	H	0.449	H16	HA	0.167
C4	CB	0.068	H20	HA	0.127	H3	H	0.449	C14	CA	-0.266
C8	C*	0.013	C19	CA	-0.173	N4	NC	-0.625	H15	HA	0.178
C9	CT	-0.032	H21	HA	0.143	C5	CA	0.468	C12	CA	0.238
H4	HC	0.056	C20	CA	-0.105	N5	NH	-0.385	O1	OS	-0.296
H5	HC	0.056	H22	HA	0.127	H4	H	0.314	C13	CT	-0.104
C17	CA	0.049	C21	CA	-0.173	C6	CT	0.068	H12	H1	0.097
C18	CA	-0.161	H23	HA	0.143	H5	H1	0.064	H13	H1	0.097
C19	CA	-0.149	C22	CA	-0.143	H6	H1	0.064	H14	H1	0.097
H13	HA	0.157	H24	HA	0.127	C7	CT	-0.007			
H12	HA	0.143				H7	H1	0.086			
C16	CA	-0.161				C8	CT	-0.015	1efy		
H11	HA	0.143	1d6v			H8	H1	0.100	C15	CT	-0.037
C21	CA	-0.149	C4	CA	-0.153	H9	H1	0.100	H11	H1	0.085
H14	HA	0.157	H3	HA	0.126	N6	N	-0.188	H12	H1	0.085
C20	CA	0.106	C3	CA	-0.145	C9	CA	-0.003	H13	H1	0.085
O2	OS	-0.325	H2	HA	0.132	C12	CA	-0.143	O2	OS	-0.320
C22	CT	0.020	C1	CA	-0.141	H12	HA	0.114	C12	CA	0.248
H15	H1	0.098	H1	HA	0.125	C13	CA	-0.089	C13	CA	-0.188
H16	H1	0.098	C2	CA	-0.145	H13	HA	0.142	C14	CA	-0.144
C31	CT	-0.087	H5	HA	0.132	C10	CA	-0.143	C11	CA	-0.171
H33	HP	0.125	C6	CA	-0.153	H11	HA	0.114	H5	HA	0.130
H34	HP	0.125	H4	HA	0.126	C11	CA	-0.089	H6	HA	0.159
N2	N3	0.019	C5	CA	-0.006	H10	HA	0.142	H7	HA	0.146
H39	H	0.272	C7	CT	0.014	C14	CA	-0.020	C10	CA	-0.087
C25	CT	-0.056	C12	CT	-0.027	C15	C	0.468	H4	HA	0.094
H21	HP	0.094	C11	CT	-0.057	O3	O	-0.618	C6	CA	-0.097
H22	HP	0.094	H16	HC	0.023	N7	N	-0.216	C2	CR	0.423
C24	CT	-0.021	H17	HC	0.023	H14	H	0.274	N2	NA	-0.390
H19	HC	0.061	H12	HC	0.023	C16	CT	-0.051	H10	H	0.340
H20	HC	0.061	H13	HC	0.023	C17	C	0.844	N1	NB	-0.547
C23	CT	-0.021	H11	HC	0.038	O4	O	-0.826	C1	CB	0.256
H17	HC	0.061	C8	CT	-0.047	O5	O	-0.826	C3	CN	0.120
H18	HC	0.061	H14	HC	0.065	H15	H1	0.051	C4	CA	-0.264
C26	CT	-0.056	H15	HC	0.065	C18	CT	-0.039	H3	HA	0.189
H23	HP	0.094	C9	CT	0.062	H16	HC	0.019	C8	CA	-0.181
H24	HP	0.094	O1	OH	-0.656	H17	HC	0.019	H2	HA	0.162
			H20	HO	0.424	C19	CT	-0.065	C7	CA	-0.140
			H19	H1	0.056	H18	HC	-0.020	H1	HA	0.158
			C10	CT	-0.020	H19	HC	-0.020	C5	CM	-0.133
			H18	HC	0.095	C20	C	0.776	C9	C	0.745
			C13	CA	-0.001	O7	O	-0.788	O1	O	-0.606
			C18	CA	-0.167	O6	O	-0.788	N3	N	-0.886
			C17	CA	-0.112				H8	H	0.383
			H8	HA	0.138				H9	H	0.383
			H9	HA	0.123	1dlr					
			C14	CA	-0.167	C1	CT	-0.011	1ela		
			H6	HA	0.123	H1	HC	0.044	N2	N3	-0.248
			C15	CA	-0.112	H2	HC	0.044	H11	H	0.277
			H7	HA	0.138	H3	HC	0.044	H12	H	0.277
			C16	CA	-0.051	C2	CA	-0.003	H13	H	0.277
			C19	C	0.536	C3	CA	-0.046	C8	CT	-0.009
			O2	O	-0.630	C4	CA	0.497	H9	HP	0.076
			N1	N	-0.306	N1	NH	-0.696	H10	HP	0.076
			H10	H	0.248	H4	H	0.384	C7	CT	-0.033
			C20	CT	-0.054	H5	H	0.384	H7	HC	0.043
			H21	H1	0.054	N2	NC	-0.581	H8	HC	0.043
			H22	H1	0.054	C5	CA	0.698	C6	CT	-0.016
			C21	CT	0.005	N3	NH	-0.914	H5	HC	0.037
			H23	HC	-0.005	H6	H	0.452	H6	HC	0.037
			H24	HC	-0.005	H7	H	0.452	C5	CT	-0.075
			C22	CT	-0.055	N4	NA	-0.302	H3	HC	0.053
			H25	HC	-0.012	H20	H	0.323	H4	HC	0.053
			H26	HC	-0.012	C6	CA	0.343	C3	CT	0.112
			C23	C	0.825	N5	NC	-0.570	N1	N	-0.296
			O4	O	-0.779	C7	CA	0.337	C1	C	0.469
			O3	O	-0.779	H8	H4	0.109	O1	O	-0.493
						C8	CM	-0.122	C2	CT	0.354
						C9	CT	-0.119			

Local Minimum Conformation

F1	F	-0.130	H13	H	0.415	S1	SY	0.927	F1	F	-0.206
F2	F	-0.130	H14	H	0.415	O1	O	-0.536	C1	CA	0.146
F3	F	-0.130	N5	NH	-0.892	O2	O	-0.536	C2	CA	-0.184
H1	H	0.225	H15	H	0.415	C1	CA	0.024	H25	HA	0.156
H2	H1	0.076	H16	H	0.415	C2	CA	-0.148	C3	CA	-0.011
C4	C	0.287	H17	H	0.366	H1	HA	0.161	C7	C	0.807
O2	O	-0.531	H18	H1	0.010	C3	CA	-0.195	O3	O	-0.781
N3	N	-0.019	H19	H1	0.010	H2	HA	0.158	O4	O	-0.781
C13	CT	0.016	H20	HC	0.031	C4	CA	0.144	C4	CA	-0.203
C12	CT	-0.056	H21	HC	0.031	C7	CT	-0.198	H24	HA	0.153
C11	CT	-0.081	H22	HC	0.022	H5	HC	0.078	C5	CA	-0.168
H15	HC	0.072	H23	HC	0.022	H6	HC	0.078	H23	HA	0.163
H16	HC	0.072	H24	H1	0.069	H7	HC	0.078	C6	CA	-0.021
H17	HC	0.057	C16	C	0.437	C5	CA	-0.195	N1	N	-0.170
H18	HC	0.057	O3	O	-0.550	H3	HA	0.158	H17	H	0.233
H19	H1	0.049	N6	N	-0.148	C6	CA	-0.148	C23	C	0.435
H20	H1	0.049	C17	CT	-0.282	H4	HA	0.161	O2	O	-0.555
C9	CT	-0.026	C18	C	0.701				C22	CT	0.112
H14	H1	0.090	O4	O	-0.647				O1	OH	-0.643
C10	C	0.454	O5	O	-0.647	1eve			H18	HO	0.423
O3	O	-0.544	H25	H1	0.155	C9	CT	-0.046	H19	H1	0.085
N4	N	-0.408	C19	CT	-0.068	H28	HC	0.041	C9	CA	0.025
H22	H	0.316	H26	HC	0.046	H29	HC	0.041	C10	CA	-0.088
C14	CA	0.083	H27	HC	0.046	C4	CA	-0.101	C11	CA	-0.319
C20	CA	-0.086	C20	CT	0.159	C3	CA	-0.149	H20	HA	0.179
C19	CA	-0.268	C21	CT	-0.225	H22	HA	0.155	H21	HA	0.146
H25	HA	0.169	H28	HC	0.047	C2	CA	0.156	C8	CA	-0.189
H26	HA	0.159	H29	HC	0.047	O3	OS	-0.340	H22	HA	0.139
C16	CA	-0.086	H30	HC	0.047	C24	CT	-0.001	C17	CA	-0.043
H23	HA	0.159	H31	HC	0.040	H17	H1	0.076	C12	CA	0.004
C17	CA	-0.268	C22	CT	-0.135	H18	H1	0.076	C13	CT	0.291
H24	HA	0.169	H32	HC	0.040	H19	H1	0.076	C20	CT	-0.184
C18	CA	0.030	H33	HC	0.040	C1	CA	0.208	H7	HC	0.030
C15	CT	0.247	C23	CT	0.011	O2	OS	-0.229	H8	HC	0.030
C22	CT	-0.244	H34	H1	0.067	C23	CT	-0.087	H9	HC	0.030
H30	HC	0.068	H35	H1	0.067	H14	H1	0.093	C21	CT	-0.184
H31	HC	0.068				H15	H1	0.093	H10	HC	0.030
H32	HC	0.068				H16	H1	0.093	H11	HC	0.030
H21	HC	-0.009	1ett			C6	CA	-0.217	H12	HC	0.030
C21	CT	-0.244	N2	NH	-0.787	H21	HA	0.168	C14	CT	-0.030
H27	HC	0.068	H9	H	0.431	C5	CA	-0.110	H13	HC	0.013
H28	HC	0.068	H10	H	0.431	C7	C	0.514	H14	HC	0.013
H29	HC	0.068	C17	CA	0.668	O1	O	-0.522	C15	CT	-0.127
			N3	NH	-0.787	C8	CT	0.016	H15	HC	0.011
			H11	H	0.431	H20	HC	0.032	H16	HC	0.011
			H12	H	0.431	C10	CT	-0.090	C16	CT	0.286
1etr			C16	CA	-0.090	H12	HC	0.057	C19	CT	-0.177
C1	CT	-0.077	C15	CA	-0.154	H13	HC	0.057	H4	HC	0.038
H1	HC	0.043	C13	CA	-0.086	C11	CT	0.022	H5	HC	0.038
H2	HC	0.043	H17	HA	0.156	C15	CT	0.001	H6	HC	0.038
C2	CT	0.220	H19	HA	0.153	C14	CT	-0.096	C18	CT	-0.177
C3	CT	-0.273	C14	CA	-0.154	H10	HP	0.111	H1	HC	0.038
H3	HC	0.061	H18	HA	0.153	H11	HP	0.111	H2	HC	0.038
H4	HC	0.061	C12	CA	-0.086	H8	HC	0.035	H3	HC	0.038
H5	HC	0.061	H16	HA	0.156	H9	HC	0.035			
H6	HC	-0.007	C11	CA	0.011	H7	HC	0.026			
C4	CT	-0.111	C10	CT	0.020	C12	CT	0.001	1ezq		
H7	H1	0.072	H14	HC	0.043	H5	HC	0.035	C20	CA	-0.005
H36	H1	0.072	H15	HC	0.043	H6	HC	0.035	H9	HA	0.084
N1	NH	-0.226	C8	CT	0.011	C13	CT	-0.096	C21	CA	-0.182
H8	H	0.252	C9	C	0.426	H3	HP	0.111	C26	CM	0.685
C5	CA	0.027	O3	O	-0.522	H4	HP	0.111	N3	NH	-0.779
C6	CA	-0.003	N4	N	-0.220	N1	N3	-0.017	H14	H	0.427
C7	CA	-0.143	C18	CT	-0.016	H30	H	0.259	H15	H	0.427
H9	HA	0.150	C19	CT	0.042	C16	CT	-0.088	N4	NH	-0.779
C8	CA	-0.258	C20	CT	-0.030	H1	HP	0.115	H16	H	0.427
H10	HA	0.165	C21	CT	0.042	H2	HP	0.115	H17	H	0.427
C9	CA	-0.092	C22	CT	-0.016	C17	CA	0.009	C22	CA	-0.106
H11	HA	0.164	H28	H1	0.054	C18	CA	-0.128	H10	HA	0.143
C10	CA	-0.010	H29	H1	0.054	H23	HA	0.133	C23	CA	-0.141
S1	SY	0.758	H26	HC	0.015	C19	CA	-0.160	H11	HA	0.174
O1	O	-0.497	H27	HC	0.015	H24	HA	0.167	C24	CA	-0.095
O2	O	-0.497	H24	HC	0.017	C20	CA	-0.071	H12	HA	0.173
N2	NT	-0.384	H25	HC	0.017	H25	HA	0.155	C25	CA	0.004
H12	H	0.228	H22	HC	0.015	C21	CA	-0.160	C18	CT	-0.019
C11	CT	0.061	H23	HC	0.015	H26	HA	0.167	H21	HC	0.031
C12	CT	-0.033	H20	H1	0.054	C22	CA	-0.128	H22	HC	0.031
C13	CT	-0.010	H21	H1	0.054	H27	HA	0.133	C16	CT	-0.044
C14	CT	0.313	H13	H1	0.076				C17	C	0.823
N3	NH	-0.704	N1	NT	-0.371				O1	OS	-0.420
C15	CM	0.883	H8	H	0.282	1exa			C27	CT	-0.025
N4	NH	-0.892									

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H18	H1	0.096	H2	HA	0.151	C6	CA	-0.074	H16	HC	0.030
H19	H1	0.096	C2	CA	-0.230	H4	HA	0.140	C13	CT	0.028
H20	H1	0.096	H3	HA	0.166	C5	CA	-0.025	C17	C	0.788
O2	O	-0.587	C3	CA	0.153	S1	SY	0.791	O5	O	-0.795
H23	HC	0.013	C4	CA	-0.036	O1	O	-0.563	O6	O	-0.795
C14	CT	0.033	C9	CA	0.644	O2	O	-0.563	H14	H1	0.069
C15	CT	-0.317	N5	NH	-0.906	N1	NT	0.021	N3	N	-0.582
H25	HC	0.111	H16	H	0.375	C8	CT	-0.083	H13	H	0.308
H26	HC	0.111	H17	H	0.375	H8	H1	0.024	C12	C	0.744
H27	HC	0.111	N1	NC	-0.565	H9	H1	0.024	O4	O	-0.650
H24	H1	0.084	C8	CA	0.090	C9	CT	-0.002	C9	CA	-0.086
N1	N	-0.390	H6	H4	0.129	H10	HC	0.026	C10	CA	-0.135
H13	H	0.252	C7	CA	-0.306	H11	HC	0.026	C11	CA	-0.119
C13	C	0.636	H5	HA	0.142	C10	CT	-0.031	H12	HA	0.139
O3	O	-0.559				H12	HC	-0.005	H11	HA	0.152
C8	CA	-0.075				H13	HC	-0.005	C8	CA	-0.135
C9	CA	-0.158	1f0t			C11	CT	0.043	H10	HA	0.152
C10	CA	-0.108	S1	S	-0.053	H14	H1	0.039	C7	CA	-0.119
H5	HA	0.134	C9	CB	-0.014	C12	C	0.763	H9	HA	0.139
H6	HA	0.154	C10	CA	-0.081	O4	O	-0.763	C6	CA	0.010
C7	CA	-0.158	H10	HA	0.206	O3	O	-0.763	S1	SY	0.832
H7	HA	0.154	C11	CA	-0.323				O2	O	-0.523
C12	CA	-0.108	H11	HA	0.173				O3	O	-0.523
H8	HA	0.134	C12	CA	0.335	1f4f			N1	NT	-0.298
C11	CA	0.007	H12	H4	0.085	O8	O	-0.857	C2	CT	-0.003
C2	CA	0.023	N3	NC	-0.592	C16	C	0.823	H3	H1	0.063
C1	CA	-0.133	C13	CB	0.395	O9	O	-0.857	H4	H1	0.063
H4	HA	0.138	C14	C*	-0.018	C15	CT	-0.049	C1	CT	-0.047
C6	CA	-0.062	H13	HA	0.167	H16	HC	-0.015	H1	HC	0.035
C19	CT	0.012	C15	CA	-0.242	H17	HC	-0.015	H2	HC	0.035
N2	N3	-0.353	S2	SY	1.009	C14	CT	0.068	C4	CT	-0.003
H30	H	0.324	O2	O	-0.497	H14	HC	-0.002	H6	HC	0.020
H31	H	0.324	O3	O	-0.497	H15	HC	-0.002	H7	HC	0.020
H32	H	0.324	N5	NT	-0.787	C13	CT	0.033	C3	CT	0.063
H28	HP	0.130	H19	H	0.457	C17	C	0.774	H5	H1	0.030
H29	HP	0.130	C17	CT	0.211	O6	O	-0.793	C5	C	0.598
C5	CA	-0.136	C18	CT	-0.138	O7	O	-0.793	O1	O	-0.603
H1	HA	0.161	C19	CT	-0.022	H13	H1	0.047	N2	N	-0.494
C4	CA	-0.189	H17	H1	0.078	N2	N	-0.485	H8	H	0.290
H2	HA	0.186	H18	H1	0.078	H12	H	0.268	C18	CT	0.096
C3	CA	-0.051	H15	HC	0.085	C12	C	0.572	H19	H1	0.041
H3	HA	0.143	H16	HC	0.085	O5	O	-0.623	H20	H1	0.041
			H14	H1	0.128	C9	CA	0.008	C19	CT	-0.043
			C16	C	0.507	C10	CA	-0.160	H21	HC	-0.018
			O4	O	-0.539	C11	CA	-0.094	H22	HC	-0.018
1f0r			N4	N	-0.253	H11	HA	0.149	C20	C	0.821
S1	S	-0.051	C8	CT	-0.136	H10	HA	0.146	O10	O	-0.828
C10	CB	-0.071	H7	H1	0.145	C8	CA	-0.160	O9	O	-0.828
C11	CA	-0.054	H8	H1	0.145	H9	HA	0.146			
H7	HA	0.196	C4	CA	0.019	C7	CA	-0.094			
C12	CA	-0.334	C5	CA	-0.140	H8	HA	0.149	1fcx		
H8	HA	0.161	H3	HA	0.198	C6	CA	0.057	C16	CT	-0.197
C13	CA	0.341	C3	CA	0.327	S1	SY	0.568	H14	HC	0.035
H9	H4	0.066	O1	OH	-0.566	O3	O	-0.505	H15	HC	0.035
N2	NC	-0.592	H9	HO	0.460	O4	O	-0.505	H16	HC	0.035
C14	CB	0.430	C2	CA	-0.268	N1	NT	-0.245	C12	CT	0.310
C15	C*	-0.110	H2	HA	0.178	C2	CT	-0.114	C17	CT	-0.197
H10	HA	0.166	C1	CA	-0.100	H3	H1	0.103	H17	HC	0.035
C16	CA	-0.132	H1	HA	0.159	H4	H1	0.103	H18	HC	0.035
S2	SY	1.059	C6	CA	-0.200	C1	CT	-0.037	H19	HC	0.035
O1	O	-0.526	C7	CM	0.756	H1	HC	0.027	C11	CT	-0.054
O2	O	-0.526	N2	NH	-0.821	H2	HC	0.027	H6	HC	0.014
N4	NT	-0.673	H6	H	0.430	C4	CT	0.078	H7	HC	0.014
H1	H	0.373	H20	H	0.430	H6	HC	-0.025	C10	CT	-0.085
C18	CT	0.126	N1	NH	-0.821	H7	HC	-0.025	H4	HC	0.008
C19	CT	-0.076	H4	H	0.430	C3	CT	0.054	H5	HC	0.008
C20	CT	-0.171	H5	H	0.430	H5	H1	0.057	C9	CT	0.278
H14	H1	0.094				C5	C	0.768	C14	CT	-0.192
H15	H1	0.094				O2	O	-0.785	H8	HC	0.038
H12	HC	0.091				O1	O	-0.785	H9	HC	0.038
H13	HC	0.091	1f4e						H10	HC	0.038
H11	H1	0.114	C4	CA	-0.074				C15	CT	-0.192
C17	C	0.420	H3	HA	0.140	1f4g			H11	HC	0.038
O3	O	-0.538	C3	CA	-0.269	O7	O	-0.843	H12	HC	0.038
N3	N	-0.088	H2	HA	0.151	C16	C	0.821	H13	HC	0.038
C21	CT	-0.040	C2	CA	0.163	O8	O	-0.843	C8	CA	-0.036
H18	H1	0.077	C7	CT	-0.126	C15	CT	-0.070	C23	CA	-0.231
H19	H1	0.077	H5	HC	0.038	H17	HC	-0.015	H23	HA	0.141
C6	CA	0.083	H6	HC	0.038	H18	HC	-0.015	C13	CA	-0.011
C5	CA	-0.243	H7	HC	0.038	C14	CT	-0.030	C24	CA	-0.297
H4	HA	0.168	C1	CA	-0.269	H15	HC	0.030	H24	HA	0.178
C1	CA	-0.184	H1	HA	0.151						

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C25	CA	-0.078				H12	HC	0.027		C11	CT	0.252	
H25	HA	0.132				C15	CT	-0.005		H9	H1	0.007	
C22	CA	0.002			1fjs	H13	HC	0.034		H10	H1	0.007	
C26	CT	0.172		O1	OH	-0.574		H14	HC	0.034	C12	CT	-0.229
O3	OH	-0.669		H24	HO	0.454		C14	CT	0.058	H11	H1	0.143
H27	HO	0.423		C1	CA	0.339		C23	CA	0.034	H12	H1	0.143
H26	H1	0.062		C2	CA	-0.259		C24	CA	-0.096	N2	NH	-0.171
C19	CA	0.059		H1	HA	0.162		C25	CA	-0.175	C13	CT	-0.128
C18	CA	-0.136		C3	CA	-0.151		C26	CA	-0.113	H13	H1	0.113
H20	HA	0.142		H2	HA	0.148		C27	CA	-0.175	H14	H1	0.113
C5	CA	0.027		C4	CA	-0.192		C28	CA	-0.096	H15	H1	0.113
C4	CA	-0.272		C5	CM	0.772		H6	HA	0.112	C14	CA	0.272
H2	HA	0.129		N1	NH	-0.833		H7	HA	0.146	N3	NA	-0.095
C3	CA	-0.093		H3	H	0.405		H8	HA	0.134	H20	H	0.318
H1	HA	0.125		H4	H	0.405		H9	HA	0.146	C15	CA	-0.157
C2	CA	0.002		N2	NH	-0.833		H10	HA	0.112	H16	H4	0.225
C1	C	0.783		H5	H	0.405		H15	H1	0.106	C16	CA	-0.114
O1	O	-0.777		H6	H	0.405		O1	OS	-0.383	H17	HA	0.180
O2	O	-0.777		C6	CA	-0.091		C1	C	0.728	C17	CA	-0.045
C7	CA	-0.229		H7	HA	0.197		O2	O	-0.557	H18	HA	0.196
H3	HA	0.135		C7	CA	0.118		C2	CT	-0.019	C18	CA	-0.170
C6	CA	0.124		O2	OS	-0.258		H16	H1	0.074	H19	HA	0.153
C21	CA	-0.199		C8	CA	0.300		C3	CT	-0.035			
H22	HA	0.149		C9	CA	0.194		H17	HC	0.028			
C20	CA	-0.264		F1	F	-0.197		H18	HC	0.028	1fm9		
H21	HA	0.134		C10	CA	0.068		C4	CT	-0.032	C30	CA	-0.145
				N4	NH	-0.192		H19	HC	0.018	C31	CA	-0.083
				C11	CT	-0.216		H20	HC	0.018	H25	HA	0.110
1fcz				C12	C	0.866		C5	CT	0.014	H24	HA	0.138
C1	CA	-0.156		O3	O	-0.721		H21	HC	0.019	C29	CA	-0.161
H1	HA	0.118		O4	O	-0.721		H22	HC	0.019	H23	HA	0.142
C2	CA	-0.178		H8	H1	0.104		C6	CT	-0.055	C28	CA	-0.145
H2	HA	0.139		H9	H1	0.104		H23	H1	0.054	H22	HA	0.138
C3	CA	0.042		C13	CT	-0.216		H24	H1	0.054	C27	CA	-0.083
C4	C	0.792		H10	H1	0.106		N1	N	-0.105	H21	HA	0.110
O1	O	-0.777		H11	H1	0.106		C7	C	0.316	C26	CA	-0.060
O2	O	-0.777		H12	H1	0.106		O3	O	-0.499	C22	CC	0.522
C5	CA	-0.178		C14	CA	0.070		C8	C	0.532	N2	NB	-0.570
H3	HA	0.139		F2	F	-0.151		O4	O	-0.510	O3	OS	-0.276
C6	CA	-0.156		N3	NC	-0.437		C9	CT	0.209	C24	CA	0.110
H4	HA	0.118		C15	CA	0.373		C12	CT	-0.159	C25	CT	-0.212
C7	CA	0.018		O5	OS	-0.323		H25	HC	0.033	H18	HC	0.082
C8	CM	-0.040		C16	CA	0.187		H26	HC	0.033	H19	HC	0.082
H24	HA	0.102		C18	CA	-0.151		H27	HC	0.033	H20	HC	0.082
C9	CM	-0.362		H14	HA	0.148		C13	CT	-0.159	C23	CC	0.150
H25	HA	0.171		C19	CA	-0.155		H28	HC	0.033	C33	CT	0.028
C10	C	0.605		H15	HA	0.146		H29	HC	0.033	H28	HC	0.005
O3	O	-0.572		C20	CA	-0.110		H30	HC	0.033	H29	HC	0.005
C11	CA	-0.030		H16	HA	0.134		C10	CT	-0.051	C32	CT	0.070
C12	CA	-0.263		C17	CA	0.005		H31	HC	0.023	H26	H1	0.058
H5	HA	0.192		H13	HA	0.072		H32	HC	0.023	H27	H1	0.058
C13	CA	-0.006		C21	CA	-0.253		C11	CT	-0.084	O1	OS	-0.219
C14	CT	0.297		C22	CM	0.722		H33	HC	0.017	C8	CA	0.071
C15	CT	-0.210		N5	NH	-0.359		H34	HC	0.017	C7	CA	-0.149
H6	HC	0.042		C23	CT	0.016		H35	HC	0.017	C5	CA	-0.130
H7	HC	0.042		H17	H1	0.044					H6	HA	0.115
H8	HC	0.042		H18	H1	0.044					H8	HA	0.106
C16	CT	-0.210		H19	H1	0.044					C6	CA	-0.149
H9	HC	0.042		C24	CT	0.019		1fm6			H7	HA	0.106
H10	HC	0.042		H20	H1	0.042		O1	O	-0.522	C4	CA	-0.130
H11	HC	0.042		H21	H1	0.042		C1	C	0.590	H5	HA	0.115
C17	CT	-0.087		C25	CT	0.048		N1	N	-0.477	C3	CA	-0.045
H12	HC	0.015		H22	H1	0.068		H1	H	0.359	C2	CT	-0.023
H13	HC	0.015		H23	H1	0.068		C2	C	0.538	H3	HC	0.029
C18	CT	-0.066		N6	N2	-0.659		O2	O	-0.448	H4	HC	0.029
H14	HC	0.016						S1	S	-0.190	C1	CT	0.285
H15	HC	0.016						C3	CT	-0.015	C34	C	0.601
C19	CT	0.262		1fkg				H2	H1	0.097	O4	O	-0.715
C20	CT	-0.212		C21	CA	-0.183		C4	CT	-0.070	O5	O	-0.715
H16	HC	0.044		C22	CA	-0.134		H3	HC	0.081	H2	H1	-0.008
H17	HC	0.044		H1	HA	0.133		H4	HC	0.081	N1	NH	-0.616
H18	HC	0.044		H2	HA	0.145		C5	CA	-0.027	H1	H	0.366
C21	CT	-0.212		C20	CA	-0.100		C8	CA	-0.111	C9	CA	0.105
H19	HC	0.044		H3	HA	0.129		H7	HA	0.142	C14	CA	-0.062
H20	HC	0.044		C19	CA	-0.183		C9	CA	-0.157	C13	CA	-0.183
H21	HC	0.044		H4	HA	0.145		H8	HA	0.124	C12	CA	-0.197
C22	CA	0.001		C18	CA	-0.134		C6	CA	-0.111	C11	CA	-0.272
C23	CA	-0.266		H5	HA	0.133		H6	HA	0.142	H9	HA	0.192
H22	HA	0.174		C17	CA	0.010		C7	CA	-0.157	H10	HA	0.128
C24	CA	-0.104		C16	CT	-0.025		H5	HA	0.124	H11	HA	0.139
H23	HA	0.118		H11	HC	0.027		C10	CA	0.108	H12	HA	0.113
								O3	OS	-0.225			

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C10	CA	0.120	H8	H1	0.052				H15	HC	0.020
C21	C	0.382	C9	CA	0.019				H16	HC	0.020
O2	O	-0.550	C10	CA	-0.101	1h1p			C16	CT	0.007
C15	CA	0.014	H9	HA	0.132	N1	NA	-0.382	H17	HC	0.016
C16	CA	-0.122	C11	CA	-0.217	H1	H	0.370	H18	HC	0.016
H13	HA	0.147	H10	HA	0.144	C1	CR	0.238	C17	CT	-0.020
C17	CA	-0.177	C12	CA	-0.080	H2	H5	0.184	H19	HC	0.020
H14	HA	0.140	H11	HA	0.119	N2	NB	-0.536	H20	HC	0.020
C18	CA	-0.108	C13	CA	-0.217	C2	CB	0.208	C18	CT	-0.038
H15	HA	0.119	H12	HA	0.144	C3	CB	0.397	H21	HC	0.021
C19	CA	-0.177	C14	CA	-0.101	N3	NC	-0.523	H22	HC	0.021
H16	HA	0.140	H13	HA	0.132	C4	CA	0.543			
C20	CA	-0.122				N4	NH	-0.850			
H17	HA	0.147				H3	H	0.441			
						H4	H	0.441	1h9u		
			1gwx			N5	NA	-0.208	O1	O	-0.759
			O1	O	-0.777	H18	H	0.284	C17	C	0.720
1frb			C1	C	0.740	C5	CM	0.254	O2	O	-0.759
O2	O	-0.787	O2	O	-0.777	O1	OS	-0.186	C14	CA	-0.029
C18	C	0.807	C2	CT	0.570	C6	CT	-0.030	C15	CA	-0.093
O3	O	-0.787	C3	CT	-0.185	H5	H1	0.096	C16	CA	-0.364
C17	CT	-0.089	H12	HC	0.012	H6	H1	0.096	H9	HA	0.175
H10	HC	0.007	H13	HC	0.012	C7	CT	0.004	H8	HA	0.133
H11	HC	0.007	H14	HC	0.012	H7	HC	0.062	C13	CA	0.145
C4	CA	0.354	C4	CT	-0.185	C8	CT	-0.032	H7	H4	0.076
N2	NC	-0.598	H15	HC	0.012	H8	HC	0.019	N1	NC	-0.506
C3	CA	0.027	H16	HC	0.012	H9	HC	0.019	C12	CA	0.402
C8	CA	-0.130	H17	HC	0.012	C9	CT	-0.012	C11	CX	0.028
C7	CA	-0.131	O3	OS	-0.484	H10	HC	0.018	C18	CX	-0.238
C6	CA	-0.177	C5	CA	0.237	H11	HC	0.018	C19	CX	-0.238
C5	CA	-0.132	C10	CA	-0.125	C10	CT	0.006	H12	HC	0.093
H1	HA	0.141	C9	CA	-0.220	H12	HC	0.015	H13	HC	0.093
H2	HA	0.136	H10	HA	0.131	H13	HC	0.015	H10	HC	0.093
H3	HA	0.140	H9	HA	0.113	C11	CT	-0.012	H11	HC	0.093
H4	HA	0.151	C6	CA	-0.125	H14	HC	0.018	C3	CA	0.000
C2	CA	0.016	H8	HA	0.113	H15	HC	0.018	C4	CA	0.048
C1	C	0.336	C7	CA	-0.220	C12	CT	-0.032	C5	CA	-0.305
O1	O	-0.566	H7	HA	0.131	H16	HC	0.019	H2	HA	0.194
N1	N	0.295	C8	CA	0.021	H17	HC	0.019	C24	CT	-0.091
C9	CT	-0.169	C11	CT	-0.024				H26	HC	0.038
H5	H1	0.130	H18	HC	0.020				H27	HC	0.038
H6	H1	0.130	H19	HC	0.020	1h1s			H28	HC	0.038
C10	CA	0.371	C12	CT	-0.014	C1	CM	-0.124	C2	CA	-0.229
S1	S	-0.124	H20	HC	0.026	H1	HA	0.144	H1	HA	0.175
N3	NB	-0.555	H21	HC	0.026	C2	CA	-0.127	C1	CA	-0.062
C12	CB	0.297	C13	CT	-0.103	H2	HA	0.189	C6	CA	-0.058
C16	CA	-0.136	H22	H1	0.067	C3	CA	-0.020	C7	CT	0.298
H9	HA	0.146	H23	H1	0.067	S1	SY	1.146	C20	CT	-0.151
C11	CB	0.046	N1	N	-0.130	N1	NT	-1.045	H14	HC	0.018
C13	CA	-0.194	C15	C	0.458	H3	H	0.474	H15	HC	0.018
H7	HA	0.211	O4	O	-0.499	H4	H	0.474	H16	HC	0.018
C14	CA	-0.264	N2	N	-0.248	O1	O	-0.544	C21	CT	-0.151
H8	HA	0.178	C16	CA	0.128	O2	O	-0.544	H17	HC	0.018
C15	CA	-0.024	C17	CA	-0.136	C4	CA	-0.127	H18	HC	0.018
C19	CT	0.488	C18	CA	-0.215	H5	HA	0.189	H19	HC	0.018
F2	F	-0.184	C19	CA	-0.059	C5	CM	-0.124	C8	CT	-0.013
F3	F	-0.184	C20	CA	-0.014	H6	HA	0.144	H3	HC	-0.005
F1	F	-0.184	C1	CI	-0.101	C6	CM	0.076	H4	HC	-0.005
			C21	CA	0.031	N2	NH	-0.234	C9	CT	-0.036
			C12	CI	-0.086	H7	H	0.320	H5	HC	-0.020
1g4o			H1	HA	0.121	C7	CA	0.261	H6	HC	-0.020
C1	CA	-0.153	H2	HA	0.171	N6	NA	-0.030	C10	CT	0.331
H1	HA	0.117	H3	HA	0.161	H23	H	0.182	C23	CT	-0.138
C2	CA	-0.090	H11	H	0.175	N3	NC	-0.571	H23	HC	0.015
H2	HA	0.128	C14	CT	-0.054	C8	CB	0.492	H24	HC	0.015
C3	CA	-0.028	H24	H1	0.083	N5	NA	-0.459	H25	HC	0.015
S1	SY	1.140	H25	H1	0.083	C10	CR	0.263	C22	CT	-0.138
N1	NT	-0.995	C22	CT	0.028	N4	NB	-0.558	H20	HC	0.015
H3	H	0.328	H26	HC	0.031	H9	H5	0.179	H21	HC	0.015
O1	O	-0.662	H27	HC	0.031	H8	H	0.392	H22	HC	0.015
O2	O	-0.662	C23	CA	0.023	C9	CB	0.240			
C4	CA	-0.090	C24	CA	-0.057	C11	CM	0.185			
H4	HA	0.128	C13	CI	-0.104	O3	OS	-0.172	1hdq		
C5	CA	-0.153	C25	CA	-0.077	C12	CT	-0.024	O1	OH	-0.723
H5	HA	0.117	H6	HA	0.130	H10	H1	0.096	N1	N	-0.443
C6	CA	-0.137	C26	CA	-0.212	H11	H1	0.096	H1	H	0.299
C7	C	0.670	H5	HA	0.174	C13	CT	0.007	C1	C	0.549
O3	O	-0.558	C27	CA	-0.151	H12	HC	0.064	O2	O	-0.762
N2	N	-0.521	H4	HA	0.169	C14	CT	-0.038	N2	N	-0.212
H6	H	0.299	C28	CA	0.171	H13	HC	0.021	H2	H	0.244
C8	CT	0.044	F1	F	-0.146	H14	HC	0.021	C2	CT	0.052
H7	H1	0.052				C15	CT	-0.020	C3	C	0.764

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C1	CI	-0.127	N2	N	-0.511	S1	SY	1.115	C20	CA	-0.166
C5	CA	0.009	H19	H	0.348	O1	O	-0.578	H16	HA	0.132
C6	CA	-0.091	C17	C	0.727	O2	O	-0.578	C21	CA	0.033
C7	CM	-0.152	O3	O	-0.525	N1	NB	-0.609	C26	CT	-0.145
H3	HA	0.145	N3	N	-0.424	C7	CV	0.606	H4	HC	0.063
H4	HA	0.142	H20	H	0.230	O3	OS	-0.228	H5	HC	0.063
C4	CA	-0.091	C18	CR	0.153	C8	CT	-0.026	H6	HC	0.063
H1	HA	0.142	C19	C*	-0.413	H5	H1	0.096	C22	CA	-0.174
C3	CM	-0.152	H21	HA	0.197	H6	H1	0.096	H15	HA	0.156
H2	HA	0.145	C20	CV	0.170	C9	CT	0.202	C23	CA	0.033
C2	CA	0.115	C21	CT	0.503	H7	H1	0.057	C27	CT	-0.145
N1	N	-0.523	C22	CT	-0.274	C15	CA	-0.102	H7	HC	0.063
H5	H	0.290	H22	HC	0.053	S2	S	-0.206	H8	HC	0.063
C1	C	0.808	H23	HC	0.053	O4	OS	-0.423	H9	HC	0.063
O1	O	-0.491	H24	HC	0.053	C10	CT	0.055	C24	CA	-0.166
N2	N	-0.602	C23	CT	-0.274	H8	H1	0.026	H17	HA	0.132
H6	H	0.355	H25	HC	0.053	H9	H1	0.026			
C8	CR	0.184	H26	HC	0.053	C11	CT	0.081			
C9	C*	-0.392	H27	HC	0.053	H10	HC	0.028	1m48		
H7	HA	0.177	C24	CT	-0.274	H11	HC	0.028	C2	CT	-0.064
C10	CV	0.149	H28	HC	0.053	C12	C*	0.027	H4	H1	0.069
C15	CT	0.531	H29	HC	0.053	C13	C*	-0.179	H5	H1	0.069
C12	CT	-0.199	H30	HC	0.053	C14	C	0.790	N3	NH	-0.204
H14	HC	0.027	N4	NB	-0.480	O5	O	-0.771	C1	C2	0.462
H15	HC	0.027	N5	N*	0.206	O6	O	-0.771	N1	NH	-0.616
H16	HC	0.027	C25	CA	0.049	C16	CC	0.064	H1	H	0.350
C13	CT	-0.199	C26	CM	-0.131	N2	N	-0.203	H31	H	0.350
H11	HC	0.027	H31	HA	0.141	H12	H	0.267	N2	NH	-0.616
H12	HC	0.027	C27	CA	-0.193	C17	C	0.463	H2	H	0.350
H13	HC	0.027	H32	HA	0.154	O7	O	-0.553	H3	H	0.350
C14	CT	-0.199	C28	CA	0.085	C18	C	0.697	C3	CT	0.003
H8	HC	0.027	C29	CT	-0.157	O9	O	-0.754	H6	H1	0.077
H9	HC	0.027	H33	HC	0.064	O8	O	-0.754	H7	H1	0.077
H10	HC	0.027	H34	HC	0.064				C4	CT	0.003
N3	NB	-0.543	H35	HC	0.064				H8	HC	0.029
N4	N*	0.217	C30	CA	-0.193	1lqd			H9	HC	0.029
C11	CT	-0.121	H36	HA	0.154	N3	NH	-0.751	C5	CT	0.003
H17	H1	0.077	C31	CM	-0.131	H26	H	0.412	H10	HC	0.019
H18	H1	0.077	H37	HA	0.141	H27	H	0.412	H11	HC	0.019
H19	H1	0.077				C25	CA	0.676	C6	CT	0.078
						N4	NH	-0.751	H12	HC	0.057
						H28	H	0.412	C7	CT	-0.111
			1l2s			H29	H	0.412	H13	HC	0.063
			C1	CI	-0.165	C18	CA	-0.178	H14	HC	0.063
			C6	CA	0.010	C19	CA	-0.068	C8	C	0.458
			C5	CA	-0.149	H21	HA	0.142	O1	O	-0.522
			C3	CA	-0.128	C17	CA	-0.067	N4	N	-0.390
			H3	HA	0.152	H20	HA	0.131	H15	H	0.271
			H5	HA	0.148	C16	CA	-0.163	C9	CT	-0.037
			C4	CA	-0.149	H19	HA	0.173	C10	C	0.816
			H4	HA	0.148	C15	CA	-0.064	O2	O	-0.573
			C2	CA	-0.128	H18	HA	0.142	O3	OS	-0.417
			H2	HA	0.152	C14	CA	0.037	C11	CT	-0.005
			C1	CA	0.312	C13	CT	-0.018	H17	H1	0.092
			N1	NH	-0.746	H13	H1	0.074	H18	H1	0.092
			H1	H	0.386	H14	H1	0.074	H19	H1	0.092
			S1	SY	0.996	N1	N*	-0.164	H16	H1	0.110
			O1	O	-0.545	C3	CB	0.048	C12	CT	-0.128
			O2	O	-0.545	C2	CA	-0.204	H20	HC	0.088
			C7	CA	-0.019	H25	HA	0.162	H21	HC	0.088
			C8	CA	-0.008	C1	CA	-0.168	C13	CA	0.012
			C10	C	0.740	H24	HA	0.166	C16	CA	-0.154
			O3	O	-0.685	C6	CA	-0.197	C17	CA	-0.088
			O4	O	-0.685	H23	HA	0.159	H25	HA	0.133
			S2	S	-0.014	C5	CA	0.047	H24	HA	0.139
			C11	CA	-0.269	C9	CT	-0.134	C14	CA	-0.154
			H7	H4	0.206	H10	HC	0.058	H22	HA	0.139
			C9	CA	-0.174	H11	HC	0.058	C15	CA	-0.088
			H6	HA	0.159	H12	HC	0.058	H23	HA	0.133
						C4	CB	0.088	C18	CA	0.052
			1l8g			C8	C*	-0.221	C19	CZ	-0.094
			C2	CA	-0.162	H22	HA	0.189	C20	CZ	-0.132
			H1	HA	0.166	C7	C*	-0.037	C21	CA	0.066
			C1	CA	-0.136	C10	C	0.423	C22	CA	-0.084
			H2	HA	0.137	O1	O	-0.559	H26	HA	0.130
			C4	CA	-0.051	N2	N	-0.184	C23	CA	-0.188
			H3	HA	0.131	H1	H	0.220	H27	HA	0.159
			C5	CA	-0.091	C11	CT	-0.060	C26	CA	-0.090
			H4	HA	0.174	H2	H1	0.094	H30	HA	0.149
			C6	CB	-0.054	H3	H1	0.094	C25	CA	-0.188
			C3	CB	-0.103	C12	CA	-0.039	H29	HA	0.159
1kv2											
C2	CT	-0.094									
H1	HP	0.127									
H2	HP	0.127									
C1	CT	0.136									
H3	H1	0.071									
H4	H1	0.071									
O1	OS	-0.368									
C3	CT	0.136									
H5	H1	0.071									
H6	H1	0.071									
C4	CT	-0.094									
H7	HP	0.127									
H8	HP	0.127									
N1	N3	-0.017									
H38	H	0.291									
C5	CT	-0.256									
H9	HP	0.177									
H10	HP	0.177									
C6	CT	-0.034									
H11	H1	0.140									
H12	H1	0.140									
O2	OS	-0.312									
C7	CA	0.020									
C10	CA	0.085									
C11	CA	-0.220									
C12	CA	-0.116									
C13	CA	-0.150									
C14	CA	-0.133									
H15	HA	0.103									
C15	CA	0.097									
H16	HA	0.163									
H17	HA	0.152									
H18	HA	0.149									
C8	CA	-0.131									
H14	HA	0.153									
C9	CM	-0.212									
H13	HA	0.195									
C16	CA	0.085									

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C24	CA	-0.084	C6	CT	-0.211	H12	HP	0.167				
H28	HA	0.130	H7	HC	0.043	N3	N3	-0.086				
			H8	HC	0.043	H24	H	0.294		1nhu		
			H9	HC	0.043	C20	CT	0.018		F1	F	-0.212
1mmb			C7	CT	-0.211	H13	HP	0.106		C24	CT	0.578
S1	S	-0.029	H10	HC	0.043	H14	HP	0.106		F2	F	-0.212
C1	CA	-0.222	H11	HC	0.043	C21	CT	-0.142		F3	F	-0.212
H1	H4	0.200	H12	HC	0.043	H15	HP	0.171		C22	CA	-0.055
C2	C*	-0.254	H6	HC	0.063	H16	HP	0.171		C23	CA	-0.158
H2	HA	0.161	H4	HC	0.016	N4	N3	-0.044		H16	HA	0.152
C3	C*	-0.010	H5	HC	0.016	C22	CT	-0.406		C21	CA	-0.132
H3	HA	0.143	H3	HC	-0.025	H17	HP	0.212		H13	HA	0.132
C4	CA	-0.001	C8	C	0.473	H18	HP	0.212		C20	CA	-0.195
S2	S	-0.165	O3	O	-0.589	H19	HP	0.212		H14	HA	0.149
C5	CT	-0.170	N2	N	-0.402	H25	H	0.351		C19	CA	-0.079
H4	H1	0.154	H25	H	0.265	C23	CT	-0.142		H15	HA	0.153
H5	H1	0.154	C9	CT	0.148	H20	HP	0.171		C18	CA	0.013
C6	CT	-0.265	C10	C	0.501	H21	HP	0.171		C17	CT	-0.164
C7	C	0.868	N3	N	-0.391	C24	CT	0.018		H4	H1	0.135
N1	N	-0.346	C11	CT	-0.197	H22	HP	0.106		H5	H1	0.135
O1	OH	-0.690	H14	H1	0.096	H23	HP	0.106		N1	N	-0.078
H6	H	0.266	H15	H1	0.096					C3	C	0.384
O2	O	-0.750	H16	H1	0.096					O3	O	-0.554
H7	HC	0.066	H26	H	0.266	1mq6				C4	CA	0.106
C8	CT	-0.023	O4	O	-0.566	C3	CA	-0.331		C5	CA	-0.090
C9	CT	-0.080	H13	H1	0.008	H1	HA	0.162		C6	CA	-0.154
C10	CT	0.174	C12	CT	-0.091	C2	CA	0.001		C7	CA	0.004
C11	CT	-0.363	H17	HC	0.059	H2	HA	0.163		C8	CA	-0.031
H8	HC	0.087	H18	HC	0.059	C1	CM	-0.122		C9	CA	-0.070
H9	HC	0.087	C13	CA	0.090	C11	CI	-0.091		C12	CI	-0.091
H10	HC	0.087	C14	CA	-0.161	C4	CA	0.256		H6	HA	0.116
C12	CT	-0.363	H19	HA	0.110	H3	H4	0.101		C11	CI	-0.141
H11	HC	0.087	C15	CA	-0.161	N1	NC	-0.508		H7	HA	0.153
H12	HC	0.087	H20	HA	0.109	C5	CA	0.589		H8	HA	0.176
H13	HC	0.087	C16	CA	-0.106	N2	N	-0.589		C1	CT	0.059
H14	HC	0.050	H21	HA	0.108	H4	H	0.318		C2	C	0.714
H15	HC	0.071	C17	CA	-0.161	C6	C	0.610		O1	O	-0.753
H16	HC	0.071	H22	HA	0.109	O1	O	-0.526		O2	O	-0.753
H17	HC	0.060	C18	CA	-0.161	C7	CA	-0.018		H3	H1	0.037
C13	C	0.103	H23	HA	0.110	C8	CA	-0.113		C10	CT	-0.012
O3	O	-0.446				H9	HA	0.147		H1	HC	0.035
N2	N	-0.252				C9	CA	-0.110		H2	HC	0.035
H18	H	0.292	1mq5			C12	CI	-0.056		C11	CA	-0.021
C14	CT	0.077	C3	CA	-0.175	C10	CA	-0.014		C12	CA	-0.122
C15	C	0.499	H1	HA	0.157	H8	HA	0.117		H12	HA	0.125
N3	N	-0.413	C2	CA	-0.065	C11	CA	0.148		C13	CA	-0.178
C16	CT	-0.115	H2	HA	0.145	O2	OS	-0.254		H11	HA	0.130
H19	H1	0.078	C1	CA	-0.024	C12	CT	-0.024		C14	CA	-0.127
H20	H1	0.078	C11	CI	-0.086	H5	H1	0.084		H10	HA	0.116
H21	H1	0.078	C4	CA	-0.065	H6	H1	0.084		C15	CA	-0.178
H22	H	0.298	H3	HA	0.145	H7	H1	0.084		H9	HA	0.130
O4	O	-0.558	C5	CA	-0.175	C13	CA	0.027		C16	CA	-0.122
H23	H1	0.057	H4	HA	0.157	N3	N	-0.402		H17	HA	0.125
C17	CT	-0.035	C6	CA	0.122	H10	H	0.305				
H24	HC	0.038	N1	N	-0.398	C14	C	0.613				
H25	HC	0.038	H5	H	0.297	O3	O	-0.507		1nhv		
C18	CA	0.016	C7	C	0.564	C15	C*	-0.050		C15	CA	-0.157
C19	CA	-0.168	O1	O	-0.522	S1	S	0.027		C16	CA	-0.125
H26	HA	0.141	C8	CA	-0.059	C17	CA	-0.148		H11	HA	0.118
C20	CA	-0.131	C9	CA	-0.077	H11	H4	0.237		H10	HA	0.128
H27	HA	0.132	H8	HA	0.140	C16	C*	-0.019		C14	CA	-0.159
C21	CA	-0.141	C10	CA	-0.055	C13	CI	-0.025		H9	HA	0.123
H28	HA	0.131	C12	CI	-0.056	C18	C*	-0.050		C13	CA	-0.157
C22	CA	-0.131	C11	CA	-0.015	C19	CT	-0.018		H8	HA	0.128
H29	HA	0.132	H7	HA	0.149	H12	HP	0.111		C12	CA	-0.125
C23	CA	-0.168	C12	CA	-0.147	H13	HP	0.111		H7	HA	0.118
H30	HA	0.141	H6	HA	0.155	N4	N3	-0.146		C11	CA	-0.015
			C13	CA	-0.005	C20	CT	-0.071		C10	CT	-0.024
			N2	N	-0.214	H14	HP	0.106		H5	HC	0.050
			H9	H	0.221	H15	HP	0.106		H6	HC	0.050
1mnc			C14	C	0.598	H16	HP	0.106		C1	CT	0.058
O1	OH	-0.604	O2	O	-0.497	H21	H	0.310		C2	C	0.694
N1	N	-0.242	C15	C*	-0.154	C21	C2	0.736		O1	O	-0.748
H24	H	0.260	S1	S	0.180	N5	N2	-0.553		O2	O	-0.748
C1	C	0.488	C17	CA	-0.243	C22	CT	0.041		H1	H1	0.060
O2	O	-0.648	H10	H4	0.233	H17	H1	0.114		N1	N	-0.172
C2	CT	0.011	C16	C*	-0.029	H18	H1	0.114		C3	C	0.443
H1	HC	-0.038	C13	CI	-0.041	C23	CT	-0.007		O3	O	-0.563
H2	HC	-0.038	C18	C*	0.053	H19	H1	0.127		C4	CA	0.102
C3	CT	0.189	C19	CT	-0.154	H20	H1	0.127		C5	CA	-0.122
C4	CT	-0.086	H11	HP	0.167	O4	OS	-0.430		C6	CA	-0.123
C5	CT	0.085										

Local Minimum Conformation

C7	CA	0.008	C15	CT	-0.028	C26	CT	-0.067	C8	CA	-0.221
C8	CA	-0.033	H22	HC	0.049	H34	HC	0.084	H7	HA	0.165
C9	CA	-0.078	H23	HC	0.049	H35	HC	0.084	C7	CA	-0.121
C12	CI	-0.087	C16	CA	0.013	C20	CT	0.014	H6	HA	0.151
H4	HA	0.119	C17	CA	-0.150	H33	HP	0.079	C6	CA	-0.103
CI1	CI	-0.147	H24	HA	0.141	C21	C	0.095	H5	HA	0.149
H3	HA	0.144	C18	CA	-0.175	O4	O	-0.361	C5	CA	-0.209
H2	HA	0.184	H25	HA	0.141	N3	N	-0.233	H4	HA	0.153
C17	CT	-0.167	C19	CA	-0.103	H32	H	0.268	C10	CA	0.120
H12	H1	0.175	H26	HA	0.126	C22	CT	0.192	C4	CA	-0.197
H13	H1	0.175	C20	CA	-0.175	C24	CT	-0.165	H3	HA	0.166
C18	CA	0.025	H27	HA	0.141	H26	HC	0.058	C3	CA	-0.165
S1	S	-0.130	C21	CA	-0.150	H27	HC	0.058	H2	HA	0.165
C19	C*	-0.203	H28	HA	0.141	H28	HC	0.058			
H14	HA	0.185				C25	CT	-0.165			
C20	C*	-0.056				H29	HC	0.058	1pph		
H15	HA	0.124	1ohr			H30	HC	0.058	C5	CA	-0.162
C21	C*	-0.032	C3	CT	-0.151	H31	HC	0.058	C6	CA	-0.155
C22	C*	0.220	H2	HC	0.068	C23	CT	-0.165	H4	HA	0.168
C23	C*	-0.366	H3	HC	0.068	H23	HC	0.058	H3	HA	0.156
H16	HA	0.217	H4	HC	0.068	H24	HC	0.058	C4	CA	0.111
C24	CB	0.091	C2	CA	0.039	H25	HC	0.058	C7	CT	-0.191
C25	CA	-0.203	C1	CA	0.286				H5	HC	0.080
H17	HA	0.156	O1	OH	-0.588				H6	HC	0.080
C26	CA	-0.210	H1	HO	0.446	1ppc			H7	HC	0.080
H18	HA	0.146	C4	CA	-0.237	N3	NH	-0.791	C3	CA	-0.162
C27	CA	-0.139	H5	HA	0.167	H15	H	0.430	H2	HA	0.156
H19	HA	0.140	C5	CA	-0.207	H22	H	0.430	C2	CA	-0.155
C28	CA	-0.267	H6	HA	0.189	C22	CA	0.670	H1	HA	0.168
H20	HA	0.170	C6	CA	-0.122	N4	NH	-0.791	C1	CA	0.013
C29	CB	0.287	H7	HA	0.133	H16	H	0.430	S1	SY	0.815
O4	OS	-0.283	C7	CA	-0.069	H17	H	0.430	O1	O	-0.506
			C8	C	0.327	C21	CA	-0.079	O2	O	-0.506
			O2	O	-0.437	C20	CA	-0.179	N1	NT	-0.471
1o86			N1	N	-0.274	C18	CA	-0.105	H15	H	0.330
O1	O	-0.683	H8	H	0.239	H19	HA	0.168	C9	CT	0.070
C1	C	0.680	C9	CT	0.143	H21	HA	0.154	C10	CT	0.033
O2	O	-0.683	C10	CT	-0.225	C19	CA	-0.179	C11	CA	-0.004
C2	CT	0.024	S1	S	-0.246	H20	HA	0.154	C12	CA	-0.091
H7	H1	0.056	C11	CA	0.145	C17	CA	-0.105	C14	CA	-0.170
C3	CT	-0.032	C12	CA	-0.089	H18	HA	0.168	C16	CA	-0.077
H5	HC	0.038	C13	CA	-0.212	C16	CA	0.090	C15	CA	-0.162
H6	HC	0.038	C14	CA	-0.082	C15	CT	-0.092	C13	CA	-0.049
C4	CT	-0.051	C15	CA	-0.212	H13	HC	0.062	H12	HA	0.141
H3	HC	0.053	C16	CA	-0.089	H14	HC	0.062	H13	HA	0.170
H4	HC	0.053	H9	HA	0.126	C13	CT	0.121	H14	HA	0.128
C5	CT	-0.150	H10	HA	0.167	C14	C	0.413	C17	CA	0.693
H1	H1	0.093	H11	HA	0.151	O4	O	-0.531	N2	NH	-0.760
H2	H1	0.093	H12	HA	0.167	N5	N	-0.153	H16	H	0.412
N1	N	-0.009	H13	HA	0.126	C23	CT	0.018	H17	H	0.412
C6	C	0.205	H14	H1	0.114	C24	CT	0.007	N3	NH	-0.760
O3	O	-0.493	H15	H1	0.114	C25	CT	-0.067	H18	H	0.412
C7	CT	0.003	H16	H1	0.131	C26	CT	0.007	H19	H	0.412
C8	CT	-0.001	C17	CT	0.102	C27	CT	0.018	H11	HA	0.157
C9	CT	-0.051	O3	OH	-0.654	H31	H1	0.034	H9	HC	0.022
C10	CT	-0.082	H17	HO	0.433	H32	H1	0.034	H10	HC	0.022
C11	CT	0.080	H18	H1	0.166	H29	HC	0.026	H8	H1	0.129
N2	N3	-0.337	C18	CT	-0.004	H30	HC	0.026	C8	C	0.358
H8	H	0.284	H19	HP	0.075	H27	HC	0.022	O3	O	-0.512
H9	H	0.284	H20	HP	0.075	H28	HC	0.022	N4	N	-0.124
H31	H	0.284	N2	N3	-0.001	H25	HC	0.026	C18	CT	-0.022
H10	HP	0.063	H46	H	0.168	H26	HC	0.026	H20	H1	0.055
H11	HP	0.063	C19	CT	-0.006	H23	H1	0.034	H21	H1	0.055
H12	HC	0.048	H21	HP	0.065	H24	H1	0.034	C19	CT	0.003
H13	HC	0.048	H22	HP	0.065	H12	H1	0.036	H22	HC	0.023
H14	HC	0.027	C28	CT	0.029	N2	N	-0.322	H23	HC	0.023
H15	HC	0.027	H37	HC	0.049	H11	H	0.278	C20	CT	-0.041
H16	HC	0.054	C29	CT	-0.032	C12	C	0.559	H24	HC	0.027
H17	HC	0.054	H38	HC	0.020	O3	O	-0.591	H25	HC	0.027
H18	HP	0.076	H39	HC	0.020	C11	CT	-0.066	C21	CT	0.003
N3	N3	-0.006	C30	CT	0.016	H9	H1	0.121	H26	HC	0.023
H29	H	0.209	H40	HC	0.014	H10	H1	0.121	H27	HC	0.023
H30	H	0.209	H41	HC	0.014	N1	NT	-0.655	C22	CT	-0.022
C12	CT	0.006	C31	CT	-0.009	H8	H	0.395	H28	H1	0.055
C13	C	0.717	H42	HC	0.019	S1	SY	0.928	H29	H1	0.055
O4	O	-0.710	H43	HC	0.019	O1	O	-0.505			
O5	O	-0.710	C32	CT	-0.042	O2	O	-0.505	1qbu		
H19	HP	0.054	H44	HC	0.023	C2	CA	-0.025	C16	CV	-0.013
C14	CT	0.063	H45	HC	0.023	C1	CA	-0.131	N4	NB	-0.383
H20	HC	-0.005	C27	CT	-0.015	H1	HA	0.154	H15	H4	0.146
H21	HC	-0.005	H36	HC	0.013	C9	CA	0.106			

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C17	CA	-0.317	C1	CT	0.235	N4	NT	-0.374	H10	H1	0.142
H16	H4	0.227	H8	H1	0.005	S1	SY	0.844	H11	H1	0.142
S1	S	0.038	H9	H1	0.005	O2	O	-0.491	C9	CT	0.035
C15	CR	0.355	C2	CT	-0.012	O3	O	-0.491	H12	H1	0.073
N3	N	-0.307	H6	HC	0.044	C16	CA	-0.004	H13	H1	0.073
H17	H	0.175	H7	HC	0.044	C18	CA	-0.217	C6	CT	-0.206
C14	C	0.582	C3	CT	-0.056	C19	CA	-0.177	H8	H1	0.142
O4	O	-0.536	H4	HC	0.036	H7	HA	0.167	H9	H1	0.142
C10	CA	-0.078	H5	HC	0.036	H6	HA	0.189	C7	CT	0.035
C11	CA	-0.080	C4	CT	-0.094	C17	CA	-0.039	H6	H1	0.073
C12	CA	-0.197	H2	H1	0.077	H11	HA	0.138	H7	H1	0.073
C13	CA	-0.131	H3	H1	0.077	C20	CA	0.055	N4	NH	-0.286
H11	HA	0.143	N1	N*	-0.021	C21	CA	0.075	C10	CA	0.020
H12	HA	0.158	C9	CK	0.112	C22	CA	-0.079	C11	CA	-0.075
H13	HA	0.149	N5	NB	-0.559	H8	HA	0.129	H14	HA	0.102
C9	CA	-0.142	C8	CB	0.199	C25	CA	-0.022	C12	CA	0.037
H14	HA	0.141	C7	C	0.525	CI1	CI	-0.087	C13	CT	-0.135
C8	CA	0.006	N4	N	-0.505	C23	CA	-0.053	H15	HC	0.060
C2	CT	-0.041	H12	H	0.339	H9	HA	0.144	H16	HC	0.060
H18	H1	0.083	O2	O	-0.547	C24	CA	-0.225	H17	HC	0.060
H19	H1	0.083	H11	H5	0.161	H10	HA	0.168	C14	CA	-0.098
N1	N	0.002	C5	CB	0.101				H18	HA	0.141
C1	C	0.273	N2	NC	-0.399				C15	CA	-0.227
O1	O	-0.528	C6	CA	0.497				H19	HA	0.172
N2	N	0.005	N3	NH	-0.471	1qpe			C16	CA	-0.141
C7	CT	-0.248	H1	H	0.325	C13	CT	-0.362	H20	HA	0.159
C32	CX	0.018	C13	CM	0.122	H9	HC	0.137			
C33	CX	-0.347	H12	CM	-0.117	H10	HC	0.137			
C34	CX	-0.347	H13	HA	0.137	H11	HC	0.137			
H29	HC	0.156	C11	CA	-0.201	C12	CT	0.111	1syn		
H30	HC	0.156	H17	HA	0.152	C14	CT	-0.362	C1	CA	-0.130
H31	HC	0.156	C10	CA	-0.067	H12	HC	0.137	H1	HA	0.155
H32	HC	0.156	H16	HA	0.122	H13	HC	0.137	C2	CA	-0.169
H28	HC	0.072	C15	CA	-0.201	H14	HC	0.137	H2	HA	0.134
H26	H1	0.148	H15	HA	0.152	C15	CT	-0.362	C3	CA	0.017
H27	H1	0.148	C14	CM	-0.117	H15	HC	0.137	C4	CA	-0.147
C6	CT	0.006	H14	HA	0.137	H16	HC	0.137	H3	HA	0.152
C25	CT	-0.088				H17	HC	0.137	C5	CA	-0.189
C26	CA	0.012				N4	N*	-0.003	H4	HA	0.136
C27	CA	-0.127	1ql9			N3	NA	-0.113	C6	CA	0.242
C28	CA	-0.184	C2	CA	-0.204	H1	H	0.333	N1	NC	-0.615
C29	CA	-0.096	H3	HA	0.173	C1	CA	0.340	C7	CD	0.507
C30	CA	-0.184	C1	CA	-0.073	N1	NC	-0.541	C8	CT	-0.162
C31	CA	-0.127	H2	H4	0.212	C2	CA	0.526	H5	HC	0.060
H5	HA	0.124	N1	NA	-0.100	H4	H5	0.097	H6	HC	0.060
H4	HA	0.147	H1	H	0.320	N2	NC	-0.641	H7	HC	0.060
H3	HA	0.127	C4	CA	-0.073	C3	CA	0.627	N2	N	-0.414
H2	HA	0.147	H5	H4	0.212	N5	NH	-0.832	H8	H	0.296
H1	HA	0.124	C3	CA	-0.204	H2	H	0.414	C9	C	0.489
H33	HC	0.055	H4	HA	0.173	H3	H	0.414	O1	O	-0.538
H34	HC	0.055	C5	CA	0.321	C4	CA	-0.072	C10	CA	0.011
H25	H1	0.053	N2	NH	-0.195	C5	CA	-0.018	C11	CA	-0.056
C5	CT	0.170	C9	CT	0.004	C6	CA	0.054	C12	CA	-0.130
O3	OH	-0.650	C8	CT	-0.064	C7	CA	-0.141	H9	HA	0.134
H35	HO	0.421	H21	HC	0.066	H5	HA	0.150	C13	CA	0.013
H22	H1	0.043	H22	HC	0.066	C8	CA	-0.063	C14	CT	0.069
C4	CT	0.087	H23	H1	0.065	H6	HA	0.157	H10	H1	0.078
O2	OH	-0.660	H24	H1	0.065	C9	CA	-0.012	H11	H1	0.078
H36	HO	0.444	C6	CT	0.004	CI1	CI	-0.032	N3	NH	-0.690
H21	H1	0.078	H25	H1	0.065	C10	CA	-0.063	H12	H	0.375
C3	CT	-0.007	H26	H1	0.065	H7	HA	0.157	C15	CA	0.106
H20	H1	0.112	C7	CT	-0.064	C11	CA	-0.141	C18	CA	-0.156
C18	CT	-0.029	H27	HC	0.066	H8	HA	0.150	H15	HA	0.166
H23	HC	0.052	H28	HC	0.066				C16	CA	-0.147
H24	HC	0.052	C10	CT	0.068				H14	HA	0.097
C19	CA	-0.021	H20	HC	0.023	1r09			C17	CA	-0.189
C20	CA	-0.121	C11	C	0.335	C1	CT	0.020	H13	HA	0.139
H10	HA	0.126	O1	O	-0.536	H1	H1	0.092	C21	CA	0.016
C21	CA	-0.126	N3	N	-0.117	H2	H1	0.092	C22	C	0.489
H9	HA	0.126	C15	CT	-0.029	H3	H1	0.092	O2	O	-0.615
C22	CA	-0.173	C14	CT	-0.022	O1	OS	-0.424	C19	CA	-0.032
H8	HA	0.145	H18	H1	0.090	C2	CA	0.812	C20	CT	-0.079
C23	CA	-0.126	H19	H1	0.090	N1	NC	-0.528	H21	H1	0.088
H7	HA	0.126	H16	H1	0.090	N2	NA	0.011	H22	H1	0.088
C24	CA	-0.121	H17	H1	0.090	H21	H	0.301	N4	N	-0.063
H6	HA	0.126	C12	CT	-0.029	C3	CA	-0.252	C23	CT	0.057
			H14	H1	0.090	H5	HA	0.207	H16	H1	0.058
			H15	H1	0.090	C4	CA	-0.099	C24	C	0.766
			C13	CT	-0.022	H4	HA	0.191	O3	O	-0.810
1qhi			H12	H1	0.090	C5	CA	0.173	O4	O	-0.810
O1	OH	-0.701	H13	H1	0.090	N3	NH	-0.055	C25	CT	-0.027
H10	HO	0.429				C8	CT	-0.206	H17	HC	0.003

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H18	HC	0.003	C1	CT	-0.035	C6	CT	-0.008	H1	HP	0.120
C26	CT	0.040	H5	HC	0.026	H8	H1	0.110	H2	HP	0.120
H19	HC	-0.075	H6	HC	0.026	H9	H1	0.110	H3	HP	0.120
H20	HC	-0.075	C6	CT	-0.033	C7	CT	0.131	N1	N3	-0.040
C27	C	0.783	H14	HC	0.025	H10	H1	0.057	H4	H	0.277
O6	O	-0.824	H15	HC	0.025	H11	H1	0.057	H16	H	0.277
O5	O	-0.824	C5	CT	-0.035	O1	OS	-0.264	C2	CT	0.008
			H12	HC	0.026	C8	CA	0.016	H5	HP	0.087
			H13	HC	0.026	C13	CA	-0.075	H6	HP	0.087
			C4	CT	-0.003	C12	CA	-0.017	C3	CT	-0.008
1thl			H10	HC	0.026	C11	CA	-0.205	H7	H1	0.109
C9	CA	-0.140	H11	HC	0.026	H13	HA	0.176	H8	H1	0.109
C8	CA	-0.205	C3	CT	-0.036	C14	CT	-0.147	N2	NT	-0.674
C6	CA	-0.099	H9	H1	0.153	H15	HC	0.072	H9	H	0.409
H7	HA	0.119	S1	S6	0.683	H16	HC	0.072	S1	SY	0.754
H9	HA	0.124	O1	O	-0.479	H17	HC	0.072	O1	O	-0.441
H10	HA	0.102	O2	O	-0.479	H14	HA	0.116	O2	O	-0.441
C7	CA	-0.205	N1	NT	-0.550	C9	CA	-0.043	C4	CA	0.013
H8	HA	0.124	H1	H	0.389	H12	HA	0.149	C5	CA	-0.038
C5	CA	-0.099	C7	CT	0.003	C10	CA	0.103	H10	HA	0.137
H6	HA	0.119	H16	H1	0.101	N3	NH	-0.571	C6	CA	-0.166
C4	CA	0.025	H17	H1	0.101	H3	H	0.375	H11	HA	0.172
C3	CT	0.022	C8	C	0.465	S1	SY	0.817	C7	CA	-0.200
H4	HC	0.011	O3	O	-0.552	O2	O	-0.497	H12	HA	0.193
H5	HC	0.011	N2	N	-0.328	O3	O	-0.497	C8	CA	0.015
C2	CT	-0.038	H2	H	0.287	C15	CA	0.014	C9	CA	0.259
H2	HC	-0.012	C9	CT	0.068	C16	CA	-0.096	H13	H4	0.093
H3	HC	-0.012	C17	C	0.467	H18	HA	0.153	N3	NC	-0.526
C1	CT	0.071	O4	O	-0.558	C17	CA	-0.160	C10	CA	0.269
C10	C	0.720	N5	N	-0.143	H19	HA	0.163	H14	H4	0.105
O1	O	-0.795	C18	CT	0.005	C18	CA	-0.075	C11	CA	-0.342
O2	O	-0.795	C19	CT	-0.019	H20	HA	0.155	H15	HA	0.161
H1	HC	-0.020	C20	CT	-0.026	C19	CA	-0.160	C12	CA	0.135
C11	CT	0.231	C21	CT	-0.019	H21	HA	0.163			
H11	HC	-0.101	C22	CT	0.005	C20	CA	-0.096			
H12	HC	-0.101	H35	H1	0.052	H22	HA	0.153			
C12	CT	0.174	H36	H1	0.052				1ydt		
C13	CT	0.016	H33	HC	0.020				C2	CA	0.121
C15	CT	0.006	H34	HC	0.020				C1	CA	-0.366
C16	CT	0.006	H31	HC	0.025	1ydr			H1	HA	0.172
C14	CT	0.016	H32	HC	0.025	C2	CA	0.099	C3	CA	0.290
H15	HC	-0.028	H29	HC	0.020	C1	CA	-0.359	H2	H4	0.097
H16	HC	-0.028	H30	HC	0.020	H1	HA	0.161	N1	NC	-0.539
H19	HC	-0.022	H27	H1	0.052	C3	CA	0.299	C4	CA	0.284
H20	HC	-0.022	H28	H1	0.052	H2	H4	0.085	H3	H4	0.083
H17	HC	-0.022	H18	H1	0.032	N1	NC	-0.548	C5	CA	0.013
H18	HC	-0.022	C10	CT	-0.100	C4	CA	0.263	C6	CA	-0.214
H13	HC	-0.028	H19	HC	0.079	H3	H4	0.086	H4	HA	0.195
H14	HC	-0.028	H20	HC	0.079	C5	CA	0.053	C7	CA	-0.165
C17	C	0.328	C11	CT	-0.050	C6	CA	-0.228	H5	HA	0.175
O3	O	-0.545	H21	H1	0.119	H4	HA	0.192	C8	CA	-0.048
N1	N	-0.297	H22	H1	0.119	C7	CA	-0.149	H6	HA	0.132
H21	H	0.262	N3	NH	-0.444	H5	HA	0.169	C9	CA	0.034
C18	CT	-0.132	H3	H	0.337	C8	CA	-0.034	S1	SY	0.794
C19	C	0.713	C12	CA	0.317	H6	HA	0.152	O1	O	-0.462
O4	O	-0.725	C13	CA	-0.162	C9	CA	-0.063	O2	O	-0.462
O5	O	-0.725	H23	HA	0.159	S1	SY	0.949	N2	NT	-0.637
H22	H1	0.094	C14	CA	-0.069	O1	O	-0.490	H7	H	0.389
C20	CT	-0.124	H24	H4	0.214	O2	O	-0.490	C10	CT	0.019
H23	HC	0.083	N4	NA	-0.123	N2	NT	-0.412	H8	H1	0.090
H24	HC	0.083	H4	H	0.326	C10	CT	0.049	H9	H1	0.090
C21	C*	-0.042	C15	CA	-0.069	C11	CT	0.026	C11	CT	0.074
C22	CW	-0.101	H25	H4	0.214	H7	HC	0.026	H10	HP	0.061
H25	H4	0.188	C16	CA	-0.162	H8	HC	0.026	H11	HP	0.061
N2	NA	-0.389	H26	HA	0.159	H9	HC	0.026	N3	N3	-0.132
H26	H	0.345				H10	H1	0.088	H12	H	0.280
C24	CN	0.077	1uvt			C12	CT	-0.059	H21	H	0.280
C23	CB	0.089	C2	CA	-0.146	H11	HP	0.110	C12	CT	-0.007
C25	CA	-0.141	H5	HA	0.141	H12	HP	0.110	H13	HP	0.105
H27	HA	0.124	C1	CA	-0.045	N3	N3	-0.140	H14	HP	0.105
C27	CA	-0.240	H4	H4	0.207	H13	H	0.284	C13	CM	-0.221
H29	HA	0.130	N1	NA	-0.123	H18	H	0.284	H15	HA	0.153
C28	CA	-0.161	H1	H	0.328	C13	CT	-0.053	C14	CM	-0.106
H30	HA	0.118	C5	CA	-0.045	H14	HP	0.107	H16	HA	0.163
C26	CA	-0.216	H7	H4	0.207	H15	HP	0.107	C15	CA	0.001
H28	HA	0.128	C4	CA	-0.146	C14	CT	0.052	C16	CA	-0.112
			H6	HA	0.141	H16	H1	0.109	H17	HA	0.131
1uvs			C3	CA	0.310	H17	H1	0.109	C17	CA	-0.054
C2	CT	-0.003	N2	NH	-0.521				H18	HA	0.141
H7	HC	0.026	H2	H	0.368	1yds			C18	CA	-0.090
H8	HC	0.026				C1	CT	-0.152	Br1	Br	-0.025
									C19	CA	-0.054

Local Minimum Conformation

H4	H4	0.108	C6	CT	0.108	C2	CA	-0.016	C2	CA	-0.176
C6	CA	0.089	C7	CT	-0.047	C1	CI	-0.132	H2	HA	0.138
C7	CT	0.004	H6	HC	0.010	C1	CA	-0.098	C3	CA	-0.159
H5	H1	0.086	H7	HC	0.010	H12	HA	0.155	H3	HA	0.123
H6	H1	0.086	H8	HC	0.010	C6	CA	-0.193	C4	CA	-0.176
N6	NH	-0.644	C8	CT	-0.047	H15	HA	0.152	H4	HA	0.138
H7	H	0.362	H9	HC	0.010	C5	CA	0.272	C5	CA	-0.198
C8	CA	0.099	H10	HC	0.010	O1	OS	-0.355	H5	HA	0.119
C11	CA	-0.152	H11	HC	0.010	C7	CA	0.259	C6	CA	0.442
H10	HA	0.148	H5	HC	0.010	C12	CA	-0.159	O1	OS	-0.572
C12	CA	-0.141	H3	HC	0.066	C11	CA	-0.163	C7	CA	0.605
H11	HA	0.143	H4	HC	0.066	H17	HA	0.178	C10	CA	-0.317
C9	CA	-0.152	H2	H1	0.106	H18	HA	0.146	H8	HA	0.179
H8	HA	0.148	C4	C	0.268	C8	CA	-0.159	C11	CA	-0.151
C10	CA	-0.141	O2	O	-0.448	H16	HA	0.146	H9	HA	0.178
H9	HA	0.143	N2	N	-0.195	C9	CA	-0.163	C8	CA	-0.317
C13	CA	0.062	H12	H	0.238	H19	HA	0.178	H7	HA	0.179
C14	C	0.353	C9	CT	0.089	C10	CA	-0.030	C9	CA	-0.151
O2	O	-0.577	C11	CT	-0.184	S1	SY	0.985	H6	HA	0.178
N7	N	-0.107	H14	HC	0.064	O2	O	-0.599	C12	CA	0.023
H12	H	0.164	H15	HC	0.064	O3	O	-0.599	S1	SY	0.765
C15	CT	0.018	H16	HC	0.064	C13	CT	-0.018	O2	O	-0.569
C16	C	0.726	H13	H1	0.080	H1	H1	0.014	O3	O	-0.569
O3	O	-0.772	C10	C	0.445	H2	H1	0.014	C13	CT	0.183
O4	O	-0.772	O3	O	-0.507	C14	CT	0.042	C14	CT	-0.281
H13	H1	0.037	N3	N	-0.177	C19	C	0.549	C15	C	0.655
C17	CT	0.109	H17	H	0.116	N1	N	-0.232	O4	O	-0.614
H14	HC	-0.012	C12	CA	0.075	O6	OH	-0.713	N1	N	-0.510
H15	HC	-0.012	C13	CA	-0.132	H11	H	0.280	O5	OH	-0.510
C18	CT	-0.332	H18	HA	0.167	O5	O	-0.665	H10	H	0.326
H16	HC	0.083	C14	CA	-0.194	C15	CT	-0.068	H11	HC	0.057
H17	HC	0.083	H19	HA	0.164	H3	HC	0.029	H12	HC	0.057
C19	C	0.740	C15	CA	-0.022	H4	HC	0.029	C16	CT	0.030
O6	O	-0.706	C18	CT	0.606	C16	CT	0.159	H13	HC	0.011
O5	O	-0.706	F4	F	-0.212	H5	H1	0.011	H14	HC	0.011
			F5	F	-0.212	H6	H1	0.011	C17	CT	0.088
			F6	F	-0.212	O4	OS	-0.436	H15	H1	0.037
			C16	CA	-0.194	C17	CT	0.159	H16	H1	0.037
7est			H20	HA	0.164	H7	H1	0.011	O6	OS	-0.428
F1	F	-0.145	C17	CA	-0.132	H8	H1	0.011	C18	CT	0.088
C2	CT	0.392	H21	HA	0.167	C18	CT	-0.068	H17	H1	0.037
F2	F	-0.145				H9	HC	0.029	H18	H1	0.037
F3	F	-0.145				H10	HC	0.029	C19	CT	0.030
C1	C	0.436							H19	HC	0.011
O1	O	-0.495	830c						H20	HC	0.011
N1	N	-0.274	C4	CA	-0.193						
H1	H	0.242	H14	HA	0.152	966c					
C3	CT	0.015	C3	CA	-0.098	C1	CA	-0.198			
C5	CT	-0.152	H13	HA	0.155	H1	HA	0.119			