

Phyre2

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Description	RVBD2470_(glbO)_2773188_2773574
Date	Wed Aug 7 12:50:09 BST 2019
Unique Job ID	0826088051f504b2

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1ngka_	Alignment		100.0	100	Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin
2	c2bmmA_	Alignment		100.0	59	PDB header: oxygen storage/transport Chain: A: PDB Molecule: thermostable hemoglobin from thermobifida fusca; PDBTitle: x-ray structure of a novel thermostable hemoglobin from the2 actinobacterium thermobifida fusca
3	c4uurB_	Alignment		100.0	32	PDB header: oxidoreductase Chain: B: PDB Molecule: putative hemoglobin-like oxygen-binding protein; PDBTitle: cold-adapted truncated hemoglobin from the antarctic marine bacterium2 pseudoalteromonas haloplanktis tac125
4	c2xykB_	Alignment		100.0	33	PDB header: oxygen storage/transport Chain: B: PDB Molecule: 2-on-2 hemoglobin; PDBTitle: group ii 2-on-2 hemoglobin from the plant pathogen2 agrobacterium tumefaciens
5	c4c0nA_	Alignment		100.0	28	PDB header: oxygen transport Chain: A: PDB Molecule: 2-on-2 hemoglobin; PDBTitle: crystal structure of non symbiotic plant hemoglobin ahb3 (glb3) from2 arabidopsis thaliana
6	c5d1vB_	Alignment		100.0	48	PDB header: oxygen transport Chain: B: PDB Molecule: globin; PDBTitle: crystal structure and thermal stability of hemoglobin from2 thermophilic phototrophic bacterium chloroflexus aurantiacus
7	c4nk1B_	Alignment		100.0	21	PDB header: oxygen binding Chain: B: PDB Molecule: hemoglobin-like protein; PDBTitle: crystal structure of phosphate-bound hell's gate globin iv
8	c1dlyA_	Alignment		100.0	18	PDB header: oxygen storage/transport Chain: A: PDB Molecule: hemoglobin; PDBTitle: x-ray crystal structure of hemoglobin from the green2 unicellular alga chlamydomonas eugametos
9	d1dlya_	Alignment		100.0	18	Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin
10	d1idra_	Alignment		100.0	21	Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin
11	c3aq8A_	Alignment		100.0	20	PDB header: oxygen binding Chain: A: PDB Molecule: group 1 truncated hemoglobin; PDBTitle: crystal structure of truncated hemoglobin from tetrahymena pyriformis,2 q46e mutant, fe(iii) form

12	d1ux8a_	Alignment		100.0	40	Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin
13	d1dlwa_	Alignment		100.0	19	Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin
14	c2kscA_	Alignment		100.0	18	PDB header: unknown function Chain: A: PDB Molecule: cyanoglobin; PDBTitle: solution structure of synechococcus sp. pcc 7002 hemoglobin
15	c4xdiB_	Alignment		100.0	16	PDB header: heme binding protein Chain: B: PDB Molecule: chlamydomonas reinhardtii thb1; PDBTitle: structure of chlamydomonas reinhardtii thb1
16	d1s69a_	Alignment		100.0	20	Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin
17	c6bmeB_	Alignment		100.0	20	PDB header: heme binding protein Chain: B: PDB Molecule: truncated hemoglobin 4; PDBTitle: crystal structure of chlamydomonas reinhardtii thb4
18	c2ig3A_	Alignment		100.0	16	PDB header: oxygen storage/transport Chain: A: PDB Molecule: group iii truncated haemoglobin; PDBTitle: crystal structure of group iii truncated hemoglobin from campylobacter2 jejuni
19	d1tu9a_	Alignment		99.1	20	Fold: Globin-like Superfamily: Globin-like Family: Globins
20	c2w31A_	Alignment		98.3	13	PDB header: oxygen transport Chain: A: PDB Molecule: globin; PDBTitle: globin domain of geobacter sulfurreducens globin-coupled sensor
21	c3s1jC_	Alignment	not modelled	98.3	14	PDB header: oxygen transport, oxygen storage Chain: C: PDB Molecule: hemoglobin-like flavoprotein; PDBTitle: crystal structure of acetate-bound hell's gate globin i
22	d1or4a_	Alignment	not modelled	98.2	8	Fold: Globin-like Superfamily: Globin-like Family: Globins
23	c4zvbD_	Alignment	not modelled	98.2	10	PDB header: signaling protein Chain: D: PDB Molecule: diguanylate cyclase dosc; PDBTitle: crystal structure of globin domain of the e. coli dosc - form ii2 (ferrous)
24	c1cqxB_	Alignment	not modelled	98.1	14	PDB header: lipid binding protein Chain: B: PDB Molecule: flavo-hemoprotein; PDBTitle: crystal structure of the flavohemoglobin from alcaligenes eutrophus at2 1.75 a resolution
25	d1cqxa1	Alignment	not modelled	98.1	13	Fold: Globin-like Superfamily: Globin-like Family: Globins
26	c2veeC_	Alignment	not modelled	98.1	13	PDB header: transport protein Chain: C: PDB Molecule: protoglobin; PDBTitle: structure of protoglobin from methanosarcina acetivorans2 c2a
27	d1fsla_	Alignment	not modelled	98.1	15	Fold: Globin-like Superfamily: Globin-like Family: Globins
28	d1gvha1	Alignment	not modelled	98.0	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
						Fold: Globin-like

29	d1wmua_	Alignment	not modelled	98.0	11	Superfamily: Globin-like Family: Globins
30	d1hlba_	Alignment	not modelled	98.0	8	Fold: Globin-like Superfamily: Globin-like Family: Globins
31	c4g1bB_	Alignment	not modelled	98.0	12	PDB header: oxidoreductase Chain: B: PDB Molecule: flavo-hemoglobin; PDBTitle: x-ray structure of yeast flavo-hemoglobin in complex with econazole
32	c2wy4A_	Alignment	not modelled	97.9	9	PDB header: oxygen transport Chain: A: PDB Molecule: single domain haemoglobin; PDBTitle: structure of bacterial globin from campylobacter jejuni at2.1.35 a resolution
33	c1gvhA_	Alignment	not modelled	97.9	12	PDB header: oxidoreductase Chain: A: PDB Molecule: flavo-hemoprotein; PDBTitle: the x-ray structure of ferric escherichia coli2 flavo-hemoglobin reveals an unsuspected geometry of the3 distal heme pocket
34	d1vhba_	Alignment	not modelled	97.9	10	Fold: Globin-like Superfamily: Globin-like Family: Globins
35	c4uiqA_	Alignment	not modelled	97.9	13	PDB header: transferase Chain: A: PDB Molecule: globin-coupled sensor with diguanylate cyclase activity; PDBTitle: isolated globin domain of the bordetella pertussis globin-2 coupled sensor with a heme at the dimer interface
36	d1gcvb_	Alignment	not modelled	97.9	8	Fold: Globin-like Superfamily: Globin-like Family: Globins
37	c5oheA_	Alignment	not modelled	97.8	15	PDB header: transferase Chain: A: PDB Molecule: globin-coupled histidine kinase; PDBTitle: globin sensor domain of afgchk (feiii form) in complex with cyanide
38	d1hbga_	Alignment	not modelled	97.8	9	Fold: Globin-like Superfamily: Globin-like Family: Globins
39	c6o0aA_	Alignment	not modelled	97.8	18	PDB header: oxidoreductase Chain: A: PDB Molecule: flavo-hemoglobin; PDBTitle: crystal structure of flavo-hemoglobin from malassezia yamatoensis with2 bound fad and heme determined by iron sad phasing
40	d2d5xa1	Alignment	not modelled	97.8	12	Fold: Globin-like Superfamily: Globin-like Family: Globins
41	d1jl7a_	Alignment	not modelled	97.8	8	Fold: Globin-like Superfamily: Globin-like Family: Globins
42	c3wfwA_	Alignment	not modelled	97.8	10	PDB header: oxygen transport Chain: A: PDB Molecule: hemoglobin-like flavoprotein fused to roadblock/lc7 domain; PDBTitle: crystal structure of the closed form of the hgbrl's globin domain
43	d1jeba_	Alignment	not modelled	97.8	12	Fold: Globin-like Superfamily: Globin-like Family: Globins
44	c1o1nA_	Alignment	not modelled	97.7	12	PDB header: oxygen storage/transport Chain: A: PDB Molecule: hemoglobin alpha chain; PDBTitle: deoxy hemoglobin (a-glyglygly-c:v1m,l29w; b,d:v1m)
45	d2qssa1	Alignment	not modelled	97.7	12	Fold: Globin-like Superfamily: Globin-like Family: Globins
46	d3d1ka1	Alignment	not modelled	97.7	13	Fold: Globin-like Superfamily: Globin-like Family: Globins
47	d1xq5a_	Alignment	not modelled	97.6	10	Fold: Globin-like Superfamily: Globin-like Family: Globins
48	d1qpwa_	Alignment	not modelled	97.6	13	Fold: Globin-like Superfamily: Globin-like Family: Globins
49	d1spga_	Alignment	not modelled	97.6	9	Fold: Globin-like Superfamily: Globin-like Family: Globins
50	c3bomC_	Alignment	not modelled	97.6	10	PDB header: oxygen storage/transport Chain: C: PDB Molecule: hemoglobin subunit alpha-4; PDBTitle: crystal structure of trout hemoglobin at 1.35 angstrom resolution
51	d1hbra_	Alignment	not modelled	97.6	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
52	d1jl6a_	Alignment	not modelled	97.6	7	Fold: Globin-like Superfamily: Globin-like Family: Globins
53	d1v4wa_	Alignment	not modelled	97.6	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
54	d1a4fa_	Alignment	not modelled	97.6	12	Fold: Globin-like Superfamily: Globin-like Family: Globins
						Fold: Globin-like

55	d2gdma_	Alignment	not modelled	97.6	9	Superfamily: Globin-like Family: Globins
56	d1fhja_	Alignment	not modelled	97.6	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
57	d1q1fa_	Alignment	not modelled	97.5	7	Fold: Globin-like Superfamily: Globin-like Family: Globins
58	c3qqrA_	Alignment	not modelled	97.5	9	PDB header: oxygen transport Chain: A: PDB Molecule: non-legume hemoglobin; PDBTitle: crystal structure of parasponia hemoglobin; differential heme2 coordination is linked to quaternary structure
59	c3mkbd_	Alignment	not modelled	97.5	6	PDB header: oxygen storage, oxygen transport Chain: D: PDB Molecule: hemoglobin subunit beta; PDBTitle: crystal structure determination of shortfin mako (isurus oxyrinchus)2 hemoglobin at 1.9 angstrom resolution
60	d1a6ma_	Alignment	not modelled	97.5	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
61	c5jggA_	Alignment	not modelled	97.5	8	PDB header: oxygen binding/transport protein Chain: A: PDB Molecule: alpha chain; PDBTitle: x-ray sequence and high resolution crystal structure of persian2 sturgeon methemoglobin
62	d1oj6a_	Alignment	not modelled	97.5	7	Fold: Globin-like Superfamily: Globin-like Family: Globins
63	d1cg5a_	Alignment	not modelled	97.5	10	Fold: Globin-like Superfamily: Globin-like Family: Globins
64	d1hlma_	Alignment	not modelled	97.4	12	Fold: Globin-like Superfamily: Globin-like Family: Globins
65	c2c0kB_	Alignment	not modelled	97.4	11	PDB header: oxygen transport Chain: B: PDB Molecule: hemoglobin; PDBTitle: the structure of hemoglobin from the botfly gasterophilus2 intestinalis
66	d1kr7a_	Alignment	not modelled	97.4	16	Fold: Globin-like Superfamily: Globin-like Family: Nerve tissue mini-hemoglobin (neural globin)
67	d1hdsa_	Alignment	not modelled	97.4	10	Fold: Globin-like Superfamily: Globin-like Family: Globins
68	d2dn3a1	Alignment	not modelled	97.4	10	Fold: Globin-like Superfamily: Globin-like Family: Globins
69	d1scta_	Alignment	not modelled	97.4	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
70	c4b4yA_	Alignment	not modelled	97.3	13	PDB header: transport protein Chain: A: PDB Molecule: neuroglobin; PDBTitle: crystal structure of the neuroglobin from the photosymbiotic2 marine acoel symsagittifera roscoffensis
71	d1louta_	Alignment	not modelled	97.3	12	Fold: Globin-like Superfamily: Globin-like Family: Globins
72	d1litha_	Alignment	not modelled	97.3	7	Fold: Globin-like Superfamily: Globin-like Family: Globins
73	d1gcva_	Alignment	not modelled	97.3	8	Fold: Globin-like Superfamily: Globin-like Family: Globins
74	d1a9we_	Alignment	not modelled	97.3	6	Fold: Globin-like Superfamily: Globin-like Family: Globins
75	c3wctA_	Alignment	not modelled	97.3	10	PDB header: oxygen transport Chain: A: PDB Molecule: a1 globin chain of giant v2 hemoglobin; PDBTitle: the structure of a deoxygenated 400 kda hemoglobin provides a more2 accurate description of the cooperative mechanism of giant3 hemoglobins: oxygenated form
76	d1x9fb_	Alignment	not modelled	97.3	15	Fold: Globin-like Superfamily: Globin-like Family: Globins
77	d1sctb_	Alignment	not modelled	97.3	10	Fold: Globin-like Superfamily: Globin-like Family: Globins
78	c2d2mB_	Alignment	not modelled	97.2	13	PDB header: oxygen storage/transport Chain: B: PDB Molecule: giant hemoglobin, a2(a5) globin chain; PDBTitle: structure of an extracellular giant hemoglobin of the2 gutless beard worm oligobranchia mashikoi
79	d1lhata_	Alignment	not modelled	97.2	8	Fold: Globin-like Superfamily: Globin-like Family: Globins
80	c1yhuA_	Alignment	not modelled	97.2	13	PDB header: oxygen storage/transport Chain: A: PDB Molecule: hemoglobin a1 chain; PDBTitle: crystal structure of riftia pachytila c1 hemoglobin reveals novel2 assembly of 24 subunits.
81	d1mwca_	Alignment	not modelled	97.2	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
						PDB header: oxygen transport

82	c3pt8B_	Alignment	not modelled	97.2	6	Chain: B: PDB Molecule: hemoglobin iii; PDBTitle: structure of hbii-iii-cn from lucina pectinata at ph 5.0
83	d1mbsa_	Alignment	not modelled	97.2	10	Fold: Globin-like Superfamily: Globin-like Family: Globins
84	d2mm1a_	Alignment	not modelled	97.1	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
85	d1mbaa_	Alignment	not modelled	97.1	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
86	c1x46A_	Alignment	not modelled	97.1	5	PDB header: oxygen storage/transport Chain: A: PDB Molecule: hemoglobin component vii; PDBTitle: crystal structure of a hemoglobin component (ta-vii) from2 tokunagayusurika akamusi
87	d1fhjb_	Alignment	not modelled	97.1	6	Fold: Globin-like Superfamily: Globin-like Family: Globins
88	c2wtgA_	Alignment	not modelled	97.1	14	PDB header: oxygen transport Chain: A: PDB Molecule: globin-like protein; PDBTitle: high resolution 3d structure of c.elegans globin-like2 protein glb-1
89	d1x9fd_	Alignment	not modelled	97.1	12	Fold: Globin-like Superfamily: Globin-like Family: Globins
90	d1hbrb_	Alignment	not modelled	97.1	7	Fold: Globin-like Superfamily: Globin-like Family: Globins
91	d3bj1b1	Alignment	not modelled	97.0	12	Fold: Globin-like Superfamily: Globin-like Family: Globins
92	d1jebb_	Alignment	not modelled	97.0	7	Fold: Globin-like Superfamily: Globin-like Family: Globins
93	c1yhuJ_	Alignment	not modelled	97.0	12	PDB header: oxygen storage/transport Chain: J: PDB Molecule: giant hemoglobins b chain; PDBTitle: crystal structure of riftia pachyptila c1 hemoglobin reveals novel2 assembly of 24 subunits.
94	d2qssb1	Alignment	not modelled	97.0	6	Fold: Globin-like Superfamily: Globin-like Family: Globins
95	c2zs0A_	Alignment	not modelled	97.0	16	PDB header: oxygen storage, oxygen transport Chain: A: PDB Molecule: extracellular giant hemoglobin major globin subunit a1; PDBTitle: structural basis for the heterotropic and homotropic interactions of2 invertebrate giant hemoglobin
96	d2h8fb1	Alignment	not modelled	97.0	10	Fold: Globin-like Superfamily: Globin-like Family: Globins
97	c5jggB_	Alignment	not modelled	97.0	5	PDB header: oxygen binding/transport protein Chain: B: PDB Molecule: beta chain; PDBTitle: x-ray sequence and high resolution crystal structure of persian2 sturgeon methemoglobin
98	d1x9fc_	Alignment	not modelled	97.0	13	Fold: Globin-like Superfamily: Globin-like Family: Globins
99	d1asha_	Alignment	not modelled	97.0	16	Fold: Globin-like Superfamily: Globin-like Family: Globins
100	d1i3da_	Alignment	not modelled	97.0	8	Fold: Globin-like Superfamily: Globin-like Family: Globins
101	d1cg5b_	Alignment	not modelled	97.0	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
102	d3d1kb1	Alignment	not modelled	97.0	9	Fold: Globin-like Superfamily: Globin-like Family: Globins
103	d1outb_	Alignment	not modelled	96.9	10	Fold: Globin-like Superfamily: Globin-like Family: Globins
104	d1hdsb_	Alignment	not modelled	96.9	9	Fold: Globin-like Superfamily: Globin-like Family: Globins
105	c1yhuW_	Alignment	not modelled	96.9	10	PDB header: oxygen storage/transport Chain: W: PDB Molecule: hemoglobin b1a chain; PDBTitle: crystal structure of riftia pachyptila c1 hemoglobin reveals novel2 assembly of 24 subunits.
106	d1d8ua_	Alignment	not modelled	96.9	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
107	d1h97a_	Alignment	not modelled	96.9	9	Fold: Globin-like Superfamily: Globin-like Family: Globins
108	c2d2mC_	Alignment	not modelled	96.9	12	PDB header: oxygen storage/transport Chain: C: PDB Molecule: giant hemoglobin, b2(c) globin chain; PDBTitle: structure of an extracellular giant hemoglobin of the2 gutless beard worm oligobranchia mashikoi
						Fold: Globin-like

109	d1ch4a_	Alignment	not modelled	96.8	7	Superfamily: Globin-like Family: Globins
110	c2olpB_	Alignment	not modelled	96.8	6	PDB header: oxygen storage/transport Chain: B: PDB Molecule: hemoglobin ii; PDBTitle: structure and ligand selection of hemoglobin ii from lucina pectinata
111	c2bk9A_	Alignment	not modelled	96.8	9	PDB header: oxygen transport Chain: A: PDB Molecule: cg9734-pa; PDBTitle: drosophila melanogaster globin
112	d2d5xb1	Alignment	not modelled	96.8	5	Fold: Globin-like Superfamily: Globin-like Family: Globins
113	c3wctD_	Alignment	not modelled	96.8	12	PDB header: oxygen transport Chain: D: PDB Molecule: b1 globin chain of giant v2 hemoglobin; PDBTitle: the structure of a deoxygenated 400 kda hemoglobin provides a more2 accurate description of the cooperative mechanism of giant3 hemoglobins: oxygenated form
114	c2vywA_	Alignment	not modelled	96.8	8	PDB header: oxygen binding Chain: A: PDB Molecule: hemoglobin; PDBTitle: hemoglobin (hb2) from trematode fasciola hepatica
115	d2aa1b1	Alignment	not modelled	96.8	12	Fold: Globin-like Superfamily: Globin-like Family: Globins
116	d2v1fa1	Alignment	not modelled	96.7	9	Fold: Globin-like Superfamily: Globin-like Family: Globins
117	d1a4fb_	Alignment	not modelled	96.7	8	Fold: Globin-like Superfamily: Globin-like Family: Globins
118	d1x9fa_	Alignment	not modelled	96.7	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
119	d2dn3b1	Alignment	not modelled	96.7	7	Fold: Globin-like Superfamily: Globin-like Family: Globins
120	d1shrb_	Alignment	not modelled	96.7	6	Fold: Globin-like Superfamily: Globin-like Family: Globins