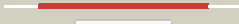



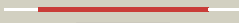
















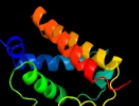


Phyre2

Email mdejesus@rockefeller.edu
 Description RVBD1542c_glbN_1744432_1744842
 Date Fri Aug 2 13:30:13 BST 2019
 Unique Job ID 0090118ff79ffaec

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1dra_	 Alignment		100.0	100	Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin
2	c3aq8A_	 Alignment		100.0	34	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
3	d1dya_	 Alignment		100.0	39	Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin
4	c1dlyA_	 Alignment		100.0	39	PDB header: oxygen storage/transport Chain: A: PDB Molecule: hemoglobin; PDBTitle: x-ray crystal structure of hemoglobin from the green2 unicellular alga chlamydomonas eugametos
5	d1dlwa_	 Alignment		100.0	36	Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin
6	c4xdiB_	 Alignment		100.0	35	PDB header: heme binding protein Chain: B: PDB Molecule: chlamydomonas reinhardtii thb1; PDBTitle: structure of chlamydomonas reinhardtii thb1
7	c2kscA_	 Alignment		100.0	34	PDB header: unknown function Chain: A: PDB Molecule: cyanoglobin; PDBTitle: solution structure of synechococcus sp. pcc 7002 hemoglobin
8	c2bmmA_	 Alignment		100.0	18	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
9	c2xykB_	 Alignment		100.0	17	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
10	c6bmeB_	 Alignment		100.0	34	PDB header: heme binding protein Chain: B: PDB Molecule: truncated hemoglobin 4; PDBTitle: crystal structure of chlamydomonas reinhardtii thb4
11	c4uurB_	 Alignment		100.0	15	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

12	d1s69a_	Alignment		100.0	35	Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin
13	d1ngka_	Alignment		100.0	19	Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin
14	c4c0nA_	Alignment		100.0	21	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
15	c5d1vB_	Alignment		100.0	27	PDB header: oxygen transport Chain: B: PDB Molecule: globin; PDBTitle: crystal structure and thermal stability of hemoglobin from2 thermophilic phototrophic bacterium chloroflexus aurantiacus
16	c4nk1B_	Alignment		100.0	19	PDB header: oxygen binding Chain: B: PDB Molecule: hemoglobin-like protein; PDBTitle: crystal structure of phosphate-bound hell's gate globin iv
17	d1ux8a_	Alignment		100.0	26	Fold: Globin-like Superfamily: Globin-like Family: Truncated hemoglobin
18	c2ig3A_	Alignment		99.9	25	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		98.6	18	Fold: Globin-like Superfamily: Globin-like Family: Globins
20	d1or4a_	Alignment		97.9	15	Fold: Globin-like Superfamily: Globin-like Family: Globins
21	c4zvbD_	Alignment	not modelled	97.8	15	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)
22	c3s1jC_	Alignment	not modelled	97.6	18	PDB header: oxygen transport, oxygen storage Chain: C: PDB Molecule: hemoglobin-like flavoprotein; PDBTitle: crystal structure of acetate-bound hell's gate globin i
23	c2w31A_	Alignment	not modelled	97.6	15	PDB header: oxygen transport Chain: A: PDB Molecule: globin; PDBTitle: globin domain of geobacter sulfurreducens globin-coupled sensor
24	c2veeC_	Alignment	not modelled	97.4	9	PDB header: transport protein Chain: C: PDB Molecule: protoglobin; PDBTitle: structure of protoglobin from methanosarcina acetivorans2 c2a
25	c4uiqA_	Alignment	not modelled	97.4	20	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
26	c5oheA_	Alignment	not modelled	97.4	19	PDB header: transferase Chain: A: PDB Molecule: globin-coupled histidine kinase; PDBTitle: globin sensor domain of afgchk (feiii form) in complex with cyanide
27	c2c0kB_	Alignment	not modelled	97.3	5	PDB header: oxygen transport Chain: B: PDB Molecule: hemoglobin; PDBTitle: the structure of hemoglobin from the botfly gasterophilus2 intestinalis
28	d1gvha1	Alignment	not modelled	97.2	19	Fold: Globin-like Superfamily: Globin-like Family: Globins

29	c1gvhA	Alignment	not modelled	97.1	18	PDB header: oxidoreductase Chain: A: PDB Molecule: flavoheмоprotein; PDBTitle: the x-ray structure of ferric escherichia coli2 flavoheмоglobin reveals an unsuspected geometry of the3 distal heme pocket
30	d1kr7a	Alignment	not modelled	97.1	32	Fold: Globin-like Superfamily: Globin-like Family: Nerve tissue mini-heмоglobin (neural globin)
31	d1cqxa1	Alignment	not modelled	97.1	17	Fold: Globin-like Superfamily: Globin-like Family: Globins
32	d2d5xa1	Alignment	not modelled	97.1	17	Fold: Globin-like Superfamily: Globin-like Family: Globins
33	d1itha	Alignment	not modelled	97.0	18	Fold: Globin-like Superfamily: Globin-like Family: Globins
34	d1hbga	Alignment	not modelled	97.0	18	Fold: Globin-like Superfamily: Globin-like Family: Globins
35	d1gcvb	Alignment	not modelled	97.0	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
36	d1wmua	Alignment	not modelled	97.0	12	Fold: Globin-like Superfamily: Globin-like Family: Globins
37	d1j17a	Alignment	not modelled	97.0	16	Fold: Globin-like Superfamily: Globin-like Family: Globins
38	d1x9fb	Alignment	not modelled	96.9	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
39	d2qssa1	Alignment	not modelled	96.9	12	Fold: Globin-like Superfamily: Globin-like Family: Globins
40	c3pt8B	Alignment	not modelled	96.9	18	PDB header: oxygen transport Chain: B: PDB Molecule: heмоglobin iii; PDBTitle: structure of hbii-iii-cn from lucina pectinata at ph 5.0
41	d1cg5a	Alignment	not modelled	96.9	17	Fold: Globin-like Superfamily: Globin-like Family: Globins
42	c2wy4A	Alignment	not modelled	96.8	13	PDB header: oxygen transport Chain: A: PDB Molecule: single domain haemoglobin; PDBTitle: structure of bacterial globin from campylobacter jejuni at2 1.35 a resolution
43	c2d2mC	Alignment	not modelled	96.8	17	PDB header: oxygen storage/transport Chain: C: PDB Molecule: giant heмоglobin, b2(c) globin chain; PDBTitle: structure of an extracellular giant heмоglobin of the2 gutless beard worm oligobrachia mashikoi
44	c2bk9A	Alignment	not modelled	96.8	13	PDB header: oxygen transport Chain: A: PDB Molecule: cg9734-pa; PDBTitle: drosophila melanogaster globin
45	c3wfwA	Alignment	not modelled	96.8	13	PDB header: oxygen transport Chain: A: PDB Molecule: heмоglobin-like flavoprotein fused to roadblock/lc7 domain; PDBTitle: crystal structure of the closed form of the hgbrl's globin domain
46	d1h97a	Alignment	not modelled	96.8	14	Fold: Globin-like Superfamily: Globin-like Family: Globins
47	c1cqxB	Alignment	not modelled	96.8	18	PDB header: lipid binding protein Chain: B: PDB Molecule: flavoheмоprotein; PDBTitle: crystal structure of the flavoheмоglobin from alcaligenes eutrophus at2 1.75 a resolution
48	d1jeba	Alignment	not modelled	96.8	15	Fold: Globin-like Superfamily: Globin-like Family: Globins
49	d1fhja	Alignment	not modelled	96.7	16	Fold: Globin-like Superfamily: Globin-like Family: Globins
50	d1qpwa	Alignment	not modelled	96.7	16	Fold: Globin-like Superfamily: Globin-like Family: Globins
51	d1hlba	Alignment	not modelled	96.7	17	Fold: Globin-like Superfamily: Globin-like Family: Globins
52	d1fsla	Alignment	not modelled	96.7	20	Fold: Globin-like Superfamily: Globin-like Family: Globins
53	d1v4wa	Alignment	not modelled	96.7	13	Fold: Globin-like Superfamily: Globin-like Family: Globins
54	d1x9fc	Alignment	not modelled	96.7	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
55	c1o1nA	Alignment	not modelled	96.6	14	PDB header: oxygen storage/transport Chain: A: PDB Molecule: heмоglobin alpha chain; PDBTitle: deoxy heмоglobin (a-glyglygly-c:v1m,l29w; b,d:v1m)

56	d1gcva_	Alignment	not modelled	96.6	10	Fold: Globin-like Superfamily: Globin-like Family: Globins
57	c5jggA_	Alignment	not modelled	96.6	11	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
58	c2d2mB_	Alignment	not modelled	96.6	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 mashkoi
59	d1mbaa_	Alignment	not modelled	96.6	12	Fold: Globin-like Superfamily: Globin-like Family: Globins
60	c2wtgA_	Alignment	not modelled	96.5	7	PDB header: oxygen transport Chain: A: PDB Molecule: globin-like protein; PDBTitle: high resolution 3d structure of c.elegans globin-like2 protein glb-1
61	d1a4fa_	Alignment	not modelled	96.5	13	Fold: Globin-like Superfamily: Globin-like Family: Globins
62	d1xq5a_	Alignment	not modelled	96.5	15	Fold: Globin-like Superfamily: Globin-like Family: Globins
63	d1vhba_	Alignment	not modelled	96.5	13	Fold: Globin-like Superfamily: Globin-like Family: Globins
64	c1yhuW_	Alignment	not modelled	96.4	14	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.
65	d1jl6a_	Alignment	not modelled	96.4	19	Fold: Globin-like Superfamily: Globin-like Family: Globins
66	c1yhuA_	Alignment	not modelled	96.4	14	PDB header: oxygen storage/transport Chain: A: PDB Molecule: hemoglobin a1 chain; PDBTitle: crystal structure of riftia pachyptila c1 hemoglobin reveals novel2 assembly of 24 subunits.
67	c3wctA_	Alignment	not modelled	96.4	9	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
68	d1myta_	Alignment	not modelled	96.4	13	Fold: Globin-like Superfamily: Globin-like Family: Globins
69	d3sdha_	Alignment	not modelled	96.4	8	Fold: Globin-like Superfamily: Globin-like Family: Globins
70	d1x9fd_	Alignment	not modelled	96.4	12	Fold: Globin-like Superfamily: Globin-like Family: Globins
71	c2zs0A_	Alignment	not modelled	96.3	9	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
72	d1hbra_	Alignment	not modelled	96.3	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
73	d1q1fa_	Alignment	not modelled	96.3	18	Fold: Globin-like Superfamily: Globin-like Family: Globins
74	c3mkbD_	Alignment	not modelled	96.3	12	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
75	d1lhta_	Alignment	not modelled	96.3	7	Fold: Globin-like Superfamily: Globin-like Family: Globins
76	c4g1bB_	Alignment	not modelled	96.2	18	PDB header: oxidoreductase Chain: B: PDB Molecule: flavo-hemoglobin; PDBTitle: x-ray structure of yeast flavo-hemoglobin in complex with econazole
77	c1x46A_	Alignment	not modelled	96.2	18	PDB header: oxygen storage/transport Chain: A: PDB Molecule: hemoglobin component vii; PDBTitle: crystal structure of a hemoglobin component (ta-vii) from2 tokunagayusurika akamusi
78	d2dn3a1	Alignment	not modelled	96.2	17	Fold: Globin-like Superfamily: Globin-like Family: Globins
79	d1oj6a_	Alignment	not modelled	96.2	16	Fold: Globin-like Superfamily: Globin-like Family: Globins
80	d1b0ba_	Alignment	not modelled	96.2	18	Fold: Globin-like Superfamily: Globin-like Family: Globins
81	c3bomC_	Alignment	not modelled	96.1	16	PDB header: oxygen storage/transport Chain: C: PDB Molecule: hemoglobin subunit alpha-4; PDBTitle: crystal structure of trout hemoglobin at 1.35 angstrom resolution
						PDB header: oxygen transport Chain: D: PDB Molecule: b1 alobin chain of aiant v2 hemoalobin:

82	c3wctD_	Alignment	not modelled	96.1	11	PDBTitle: the structure of a deoxygenated 400 kda hemoglobin provides a more2 accurate description of the cooperative mechanism of giant3 hemoglobins: oxygenated form
83	d1hlma_	Alignment	not modelled	96.1	14	Fold: Globin-like Superfamily: Globin-like Family: Globins
84	d1outa_	Alignment	not modelled	96.1	14	Fold: Globin-like Superfamily: Globin-like Family: Globins
85	d1x9fa_	Alignment	not modelled	96.1	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
86	d3d1ka1	Alignment	not modelled	96.1	13	Fold: Globin-like Superfamily: Globin-like Family: Globins
87	d1a6ma_	Alignment	not modelled	96.0	10	Fold: Globin-like Superfamily: Globin-like Family: Globins
88	c2vywA_	Alignment	not modelled	96.0	16	PDB header: oxygen binding Chain: A: PDB Molecule: hemoglobin; PDBTitle: hemoglobin (hb2) from trematode fasciola hepatica
89	d1ch4a_	Alignment	not modelled	96.0	19	Fold: Globin-like Superfamily: Globin-like Family: Globins
90	c4u8uW_	Alignment	not modelled	95.9	13	PDB header: oxygen storage/transport Chain: W: PDB Molecule: globin d chain; PDBTitle: the crystallographic structure of the giant hemoglobin from2 glossoscolex paulistus at 3.2 a resolution.
91	d1scta_	Alignment	not modelled	95.9	10	Fold: Globin-like Superfamily: Globin-like Family: Globins
92	c1yhuJ_	Alignment	not modelled	95.9	11	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.
93	c4b4yA_	Alignment	not modelled	95.9	9	PDB header: transport protein Chain: A: PDB Molecule: neuroglobin; PDBTitle: crystal structure of the neuroglobin from the photosymbiotic2 marine acoeel symsagittifera roscoffensis
94	d2qssb1	Alignment	not modelled	95.9	17	Fold: Globin-like Superfamily: Globin-like Family: Globins
95	c2zs1D_	Alignment	not modelled	95.9	12	PDB header: oxygen storage, oxygen transport Chain: D: PDB Molecule: extracellular giant hemoglobin major globin subunit b1; PDBTitle: structural basis for the heterotropic and homotropic interactions of2 invertebrate giant hemoglobin
96	c2olpB_	Alignment	not modelled	95.8	12	PDB header: oxygen storage/transport Chain: B: PDB Molecule: hemoglobin ii; PDBTitle: structure and ligand selection of hemoglobin ii from lucina pectinata
97	d2gdma_	Alignment	not modelled	95.8	19	Fold: Globin-like Superfamily: Globin-like Family: Globins
98	c6o0aA_	Alignment	not modelled	95.8	23	PDB header: oxidoreductase Chain: A: PDB Molecule: flavoheemoglobin; PDBTitle: crystal structure of flavoheemoglobin from malassezia yamatoensis with2 bound fad and heme determined by iron sad phasing
99	d1i3da_	Alignment	not modelled	95.8	17	Fold: Globin-like Superfamily: Globin-like Family: Globins
100	d2qfka1	Alignment	not modelled	95.7	13	Fold: Globin-like Superfamily: Globin-like Family: Globins
101	c3qqrA_	Alignment	not modelled	95.7	10	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
102	d1spga_	Alignment	not modelled	95.7	17	Fold: Globin-like Superfamily: Globin-like Family: Globins
103	d1sctb_	Alignment	not modelled	95.6	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
104	d1eccda_	Alignment	not modelled	95.6	17	Fold: Globin-like Superfamily: Globin-like Family: Globins
105	d1fhjb_	Alignment	not modelled	95.6	17	Fold: Globin-like Superfamily: Globin-like Family: Globins
106	d1a9we_	Alignment	not modelled	95.6	14	Fold: Globin-like Superfamily: Globin-like Family: Globins
107	d2aa1b1	Alignment	not modelled	95.5	15	Fold: Globin-like Superfamily: Globin-like Family: Globins
108	c1yhuX_	Alignment	not modelled	95.5	13	PDB header: oxygen storage/transport Chain: X: PDB Molecule: hemoglobin b2 chain; PDBTitle: crystal structure of riftia pachyptila c1 hemoglobin

					reveals novel2 assembly of 24 subunits.
109	d1asha_	Alignment	not modelled	95.5	10 Fold: Globin-like Superfamily: Globin-like Family: Globins
110	d2d5xb1	Alignment	not modelled	95.4	18 Fold: Globin-like Superfamily: Globin-like Family: Globins
111	d1hbrb_	Alignment	not modelled	95.4	15 Fold: Globin-like Superfamily: Globin-like Family: Globins
112	d2h8fb1	Alignment	not modelled	95.4	13 Fold: Globin-like Superfamily: Globin-like Family: Globins
113	c1x3kA	Alignment	not modelled	95.4	16 PDB header: oxygen storage/transport Chain: A: PDB Molecule: hemoglobin component v; PDBTitle: crystal structure of a hemoglobin component (ta-v) from2 tokunagayusurika akamusi
114	d1mbsa_	Alignment	not modelled	95.4	11 Fold: Globin-like Superfamily: Globin-like Family: Globins
115	d1hdsa_	Alignment	not modelled	95.3	15 Fold: Globin-like Superfamily: Globin-like Family: Globins
116	d3d1kb1	Alignment	not modelled	95.0	13 Fold: Globin-like Superfamily: Globin-like Family: Globins
117	d1jebb_	Alignment	not modelled	94.9	15 Fold: Globin-like Superfamily: Globin-like Family: Globins
118	d1outb_	Alignment	not modelled	94.8	13 Fold: Globin-like Superfamily: Globin-like Family: Globins
119	d1cg5b_	Alignment	not modelled	94.5	13 Fold: Globin-like Superfamily: Globin-like Family: Globins
120	d1d8ua_	Alignment	not modelled	94.5	14 Fold: Globin-like Superfamily: Globin-like Family: Globins