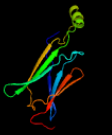



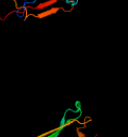

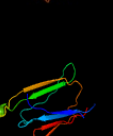

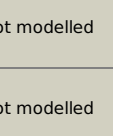


Phyre2

Email mdejesus@rockefeller.edu
 Description RVBD0251c_(hsp)_302173_302652
 Date Tue Jul 23 14:50:31 BST 2019
 Unique Job ID ca756062fc01cf4a

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1gmea_	Alignment		99.9	23	Fold: HSP20-like chaperones Superfamily: HSP20-like chaperones Family: HSP20
2	c3w1zA_	Alignment		99.9	28	PDB header: chaperone Chain: A: PDB Molecule: heat shock protein 16; PDBTitle: heat shock protein 16.0 from schizosaccharomyces pombe
3	c2ygdV_	Alignment		99.9	26	PDB header: chaperone Chain: V: PDB Molecule: PDBTitle: molecular architectures of the 24meric eye lens chaperone alphab-2 crystallin elucidated by a triple hybrid approach
4	c5mb8J_	Alignment		99.9	19	PDB header: chaperone Chain: J: PDB Molecule: 25.3 kda heat shock protein, chloroplastic; PDBTitle: hsp21 dodecamer, structural model based on cryo-em and homology2 modelling
5	c6dv5T_	Alignment		99.9	22	PDB header: chaperone Chain: T: PDB Molecule: heat shock protein beta-1; PDBTitle: oligomeric complex of a hsp27 24-mer at 3.6 a resolution
6	c3w1zD_	Alignment		99.9	31	PDB header: chaperone Chain: D: PDB Molecule: heat shock protein 16; PDBTitle: heat shock protein 16.0 from schizosaccharomyces pombe
7	d1gmeb_	Alignment		99.9	30	Fold: HSP20-like chaperones Superfamily: HSP20-like chaperones Family: HSP20
8	d1shsa_	Alignment		99.9	23	Fold: HSP20-like chaperones Superfamily: HSP20-like chaperones Family: HSP20
9	c1shsD_	Alignment		99.9	23	PDB header: heat shock protein Chain: D: PDB Molecule: small heat shock protein; PDBTitle: small heat shock protein from methanococcus jannaschii
10	c3glaA_	Alignment		99.9	33	PDB header: chaperone Chain: A: PDB Molecule: low molecular weight heat shock protein; PDBTitle: crystal structure of the hspa from xanthomonas axonopodis
11	c3l1eA_	Alignment		99.9	24	PDB header: chaperone Chain: A: PDB Molecule: alpha-crystallin a chain; PDBTitle: bovine alphaa crystallin zinc bound

12	c4feiA	Alignment		99.9	31	PDB header: chaperone Chain: A: PDB Molecule: heat shock protein-related protein; PDBTitle: hsp17.7 from deinococcus radiodurans
13	c4ydzA	Alignment		99.9	23	PDB header: chaperone Chain: A: PDB Molecule: stress-induced protein 1; PDBTitle: stress-induced protein 1 from caenorhabditis elegans
14	c5mb8L	Alignment		99.8	25	PDB header: chaperone Chain: L: PDB Molecule: 25.3 kda heat shock protein, chloroplastic; PDBTitle: hsp21 dodecamer, structural model based on cryo-em and homology2 modelling
15	c2bolA	Alignment		99.8	17	PDB header: heat shock protein Chain: A: PDB Molecule: small heat shock protein; PDBTitle: crystal structure and assembly of tsp36, a metazoan small heat shock2 protein
16	c6ewnA	Alignment		99.8	32	PDB header: chaperone Chain: A: PDB Molecule: hspa; PDBTitle: hspa from thermosynechococcus vulcanus in the presence of 2m urea with2 initial stages of denaturation
17	d2h50a1	Alignment		99.8	32	Fold: HSP20-like chaperones Superfamily: HSP20-like chaperones Family: HSP20
18	c5ds1B	Alignment		99.8	30	PDB header: chaperone Chain: B: PDB Molecule: 17.1 kda class ii heat shock protein; PDBTitle: core domain of the class ii small heat-shock protein hsp 17.7 from2 pisum sativum
19	c4zjdF	Alignment		99.8	31	PDB header: chaperone Chain: F: PDB Molecule: aggregation suppressing protein; PDBTitle: small heat shock protein agsa from salmonella typhimurium: truncations2 at n- and c- termini
20	c3aabA	Alignment		99.8	25	PDB header: chaperone Chain: A: PDB Molecule: putative uncharacterized protein st1653; PDBTitle: small heat shock protein hsp14.0 with the mutations of i120f and i122f2 in the form i crystal
21	c5ltwK	Alignment	not modelled	99.8	21	PDB header: protein binding Chain: K: PDB Molecule: heat shock protein beta-6; PDBTitle: complex of human 14-3-3 sigma clu1 mutant with phosphorylated heat2 shock protein b6
22	c4ylcF	Alignment	not modelled	99.8	25	PDB header: chaperone Chain: F: PDB Molecule: heat shock protein hsp20; PDBTitle: crystal structure of del-c4 mutant of hsp14.1 from sulfolobus2 solfataricus p2
23	c6f2rK	Alignment	not modelled	99.8	17	PDB header: chaperone Chain: K: PDB Molecule: hspb2,heat shock protein beta-2,heat shock protein beta-2, PDBTitle: a hetrotetramer of human hspb2 and hspb3
24	c6f2rE	Alignment	not modelled	99.8	19	PDB header: chaperone Chain: E: PDB Molecule: hspb2,heat shock protein beta-2,heat shock protein beta-2, PDBTitle: a hetrotetramer of human hspb2 and hspb3
25	c2wj5A	Alignment	not modelled	99.8	22	PDB header: chaperone Chain: A: PDB Molecule: heat shock protein beta-6; PDBTitle: rat alpha crystallin domain
26	c6f2rl	Alignment	not modelled	99.8	16	PDB header: chaperone Chain: I: PDB Molecule: hspb2,heat shock protein beta-2,heat shock protein beta-2, PDBTitle: a hetrotetramer of human hspb2 and hspb3
27	c4rzka	Alignment	not modelled	99.8	25	PDB header: chaperone Chain: A: PDB Molecule: small heat shock protein hsp20 family; PDBTitle: crystal structure of sulfolobus solfataricus hsp20.1 acd
28	c2n3jA	Alignment	not modelled	99.8	24	PDB header: chaperone Chain: A: PDB Molecule: heat shock protein beta-1; PDBTitle: solution structure of the alpha-crystallin domain from the redox-2 sensitive chaperone, hspb1 PDB header: chaperone

29	c5zulB_	Alignment	not modelled	99.8	26	Chain: B: PDB Molecule: small heat shock protein; PDBTitle: small heat shock protein from mycobacterium marinum m : form-3
30	c6f2rA_	Alignment	not modelled	99.7	19	PDB header: chaperone Chain: A: PDB Molecule: hspb2,heat shock protein beta-2,heat shock protein beta-2, PDBTitle: a hetrotetramer of human hspb2 and hspb3
31	c2klrA_	Alignment	not modelled	99.7	28	PDB header: chaperone Chain: A: PDB Molecule: alpha-crystallin b chain; PDBTitle: solid-state nmr structure of the alpha-crystallin domain in alphab-2 crystallin oligomers
32	c3q9qB_	Alignment	not modelled	99.7	25	PDB header: chaperone Chain: B: PDB Molecule: heat shock protein beta-1; PDBTitle: hspb1 fragment second crystal form
33	c6f2rT_	Alignment	not modelled	99.6	22	PDB header: chaperone Chain: T: PDB Molecule: heat shock protein beta-3,heat shock protein beta-3,heat PDBTitle: a hetrotetramer of human hspb2 and hspb3
34	c2wj7D_	Alignment	not modelled	99.5	30	PDB header: chaperone Chain: D: PDB Molecule: alpha-crystallin b chain; PDBTitle: human alphab crystallin
35	c4pbdA_	Alignment	not modelled	99.4	23	PDB header: protein binding Chain: A: PDB Molecule: protein shq1 homolog; PDBTitle: crystal structure of the n-terminal cs domain of human shq1
36	c6gxzD_	Alignment	not modelled	99.1	22	PDB header: chaperone Chain: D: PDB Molecule: pih1 domain-containing protein 1; PDBTitle: crystal structure of the human rpap3(tpz2)-pih1d1(cs) complex
37	d1rl1a_	Alignment	not modelled	98.0	16	Fold: HSP20-like chaperones Superfamily: HSP20-like chaperones Family: GS domain
38	c2jkiS_	Alignment	not modelled	97.9	17	PDB header: chaperone Chain: S: PDB Molecule: sgt1-like protein; PDBTitle: complex of hsp90 n-terminal and sgt1 cs domain
39	c3eudE_	Alignment	not modelled	97.3	18	PDB header: nuclear protein Chain: E: PDB Molecule: protein shq1; PDBTitle: structure of the cs domain of the essential h/aca rnp assembly protein2 shq1p
40	c3igfB_	Alignment	not modelled	97.2	31	PDB header: atp binding protein Chain: B: PDB Molecule: all4481 protein; PDBTitle: crystal structure of the all4481 protein from nostoc sp. pcc 7120,2 northeast structural genomics consortium target nsr300
41	d1ejfa_	Alignment	not modelled	96.6	12	Fold: HSP20-like chaperones Superfamily: HSP20-like chaperones Family: Co-chaperone p23-like
42	c1x5mA_	Alignment	not modelled	96.5	8	PDB header: apoptosis, signaling protein Chain: A: PDB Molecule: calcyclin-binding protein; PDBTitle: solution structure of the core domain of calcyclin binding2 protein; siah-interacting protein (sip)
43	c6mv2A_	Alignment	not modelled	96.2	8	PDB header: oxidoreductase Chain: A: PDB Molecule: cytochrome b5 reductase 4; PDBTitle: 2.05a resolution structure of the cs-b5r domains of human ncb5or2 (nadp+ form)
44	c2k8qA_	Alignment	not modelled	96.2	17	PDB header: structural protein Chain: A: PDB Molecule: protein shq1; PDBTitle: nmr structure of shq1p n-terminal domain
45	c2o30A_	Alignment	not modelled	96.2	11	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: nuclear movement protein; PDBTitle: nuclear movement protein from e. cuniculi gb-m1
46	d1wgva_	Alignment	not modelled	96.1	17	Fold: HSP20-like chaperones Superfamily: HSP20-like chaperones Family: Nuclear movement domain
47	d1wfia_	Alignment	not modelled	95.9	21	Fold: HSP20-like chaperones Superfamily: HSP20-like chaperones Family: Nuclear movement domain
48	d1xo9a_	Alignment	not modelled	95.1	20	Fold: HSP20-like chaperones Superfamily: HSP20-like chaperones Family: Co-chaperone p23-like
49	d1wh0a_	Alignment	not modelled	94.6	16	Fold: HSP20-like chaperones Superfamily: HSP20-like chaperones Family: GS domain
50	c2rh0B_	Alignment	not modelled	82.6	13	PDB header: nuclear protein Chain: B: PDB Molecule: nudc domain-containing protein 2; PDBTitle: crystal structure of nudc domain-containing protein 2 (13542905) from2 mus musculus at 1.95 a resolution
51	c2cg9Y_	Alignment	not modelled	62.4	10	PDB header: chaperone Chain: Y: PDB Molecule: co-chaperone protein sba1; PDBTitle: crystal structure of an hsp90-sba1 closed chaperone complex
52	d2fqla1	Alignment	not modelled	61.2	17	Fold: N domain of copper amine oxidase-like Superfamily: Frataxin/Nqo15-like Family: Frataxin-like
53	d1vyfa_	Alignment	not modelled	46.2	14	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
54	d2ga5a1	Alignment	not modelled	43.0	20	Fold: N domain of copper amine oxidase-like Superfamily: Frataxin/Nqo15-like Family: Frataxin-like
55	d1ekga_	Alignment	not modelled	41.9	41	Fold: N domain of copper amine oxidase-like Superfamily: Frataxin/Nqo15-like Family: Frataxin-like

56	d1eala_	Alignment	not modelled	40.8	17	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
57	c4jpdA_	Alignment	not modelled	40.4	24	PDB header: metal binding protein Chain: A: PDB Molecule: protein cyay; PDBTitle: the structure of cyay from burkholderia cenocepacia
58	c4i3dB_	Alignment	not modelled	40.0	14	PDB header: fluorescent protein Chain: B: PDB Molecule: bilirubin-inducible fluorescent protein unag; PDBTitle: crystal structure of fluorescent protein unag n57a mutant
59	c3em0A_	Alignment	not modelled	39.3	19	PDB header: lipid binding protein Chain: A: PDB Molecule: ileal bile acid-binding protein; PDBTitle: crystal structure of zebrafish ileal bile acid-bindin protein2 complexed with cholic acid (crystal form b).
60	d1o1va_	Alignment	not modelled	39.3	15	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
61	c4hs5B_	Alignment	not modelled	39.2	13	PDB header: metal binding protein Chain: B: PDB Molecule: protein cyay; PDBTitle: frataxin from psychromonas ingrahamii as a model to study stability2 modulation within cyay protein family
62	c6fcoB_	Alignment	not modelled	36.0	28	PDB header: transport protein Chain: B: PDB Molecule: mitochondrial frataxin-like protein; PDBTitle: structural and functional characterisation of frataxin (fxn) like2 protein from chaetomium thermophilum
63	d2a0aa1	Alignment	not modelled	35.2	15	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
64	c6c1zA_	Alignment	not modelled	34.4	13	PDB header: lipid binding protein Chain: A: PDB Molecule: lipid binding protein; PDBTitle: crystal structure of apo caenorhabditis elegans lipid binding protein2 8 (lbp-8)
65	d2j01h1	Alignment	not modelled	34.1	9	Fold: Ribosomal protein L6 Superfamily: Ribosomal protein L6 Family: Ribosomal protein L6
66	d2ftba1	Alignment	not modelled	33.8	29	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
67	c5bvtA_	Alignment	not modelled	33.4	15	PDB header: lipid binding protein Chain: A: PDB Molecule: epidermal fatty acid-binding protein; PDBTitle: palmitate-bound pfabp5
68	d1ggla_	Alignment	not modelled	32.0	20	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
69	c2lbaA_	Alignment	not modelled	31.7	14	PDB header: lipid binding protein Chain: A: PDB Molecule: babp protein; PDBTitle: solution structure of chicken ileal babp in complex with2 glycochenodeoxycholic acid
70	d1ew4a_	Alignment	not modelled	31.3	33	Fold: N domain of copper amine oxidase-like Superfamily: Frataxin/Nqo15-like Family: Frataxin-like
71	d1yiva1	Alignment	not modelled	29.2	21	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
72	d1tw4a_	Alignment	not modelled	29.1	31	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
73	d2cq1a1	Alignment	not modelled	28.8	11	Fold: Ribosomal protein L6 Superfamily: Ribosomal protein L6 Family: Ribosomal protein L6
74	d1p6pa_	Alignment	not modelled	28.8	26	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
75	c5kz5H_	Alignment	not modelled	28.7	41	PDB header: transferase/oxidoreductase Chain: H: PDB Molecule: frataxin, mitochondrial; PDBTitle: architecture of the human mitochondrial iron-sulfur cluster assembly2 machinery: the complex formed by the iron donor, the sulfur donor,3 and the scaffold
76	d1crba_	Alignment	not modelled	28.4	24	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
77	d2f73a1	Alignment	not modelled	28.3	14	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
78	d1bwya_	Alignment	not modelled	27.9	17	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
79	c5xnaB_	Alignment	not modelled	26.7	11	PDB header: lipid transport Chain: B: PDB Molecule: sahs1; PDBTitle: crystal structure of a secretary abundant heat soluble (sahs) protein2 from ramazzottius varieornatus (from dimer sample)
80	c2q9sA_	Alignment	not modelled	26.5	26	PDB header: lipid binding protein Chain: A: PDB Molecule: fatty acid-binding protein; PDBTitle: linoleic acid bound to fatty acid binding protein 4
81	d1pmpa_	Alignment	not modelled	26.0	21	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
82	d1mdca_	Alignment	not modelled	25.9	17	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like

83	d1rl6a1	Alignment	not modelled	25.9	9	Fold: Ribosomal protein L6 Superfamily: Ribosomal protein L6 Family: Ribosomal protein L6
84	d1lfoa_	Alignment	not modelled	24.8	14	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
85	c4nkbB_	Alignment	not modelled	24.3	31	PDB header: transferase Chain: B: PDB Molecule: probable serine/threonine-protein kinase zyg-1; PDBTitle: crystal structure of the cryptic polo box (cpb)of zyg-1
86	d2hnxa1	Alignment	not modelled	24.1	24	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
87	d1kqwa_	Alignment	not modelled	24.1	17	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
88	d1kzwa_	Alignment	not modelled	23.8	14	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
89	d1lpja_	Alignment	not modelled	23.6	14	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
90	d1fdqa_	Alignment	not modelled	23.5	19	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
91	d1b56a_	Alignment	not modelled	23.0	14	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
92	d1qw9a1	Alignment	not modelled	22.5	10	Fold: Glycosyl hydrolase domain Superfamily: Glycosyl hydrolase domain Family: Composite domain of glycosyl hydrolase families 5, 30, 39 and 51
93	d1vqoe1	Alignment	not modelled	21.8	26	Fold: Ribosomal protein L6 Superfamily: Ribosomal protein L6 Family: Ribosomal protein L6
94	c5fu4B_	Alignment	not modelled	21.2	34	PDB header: sugar binding protein Chain: B: PDB Molecule: cbm74-rfgh5; PDBTitle: the complexity of the ruminococcus flavefaciens cellulosome reflects2 an expansion in glycan recognition
95	d1g7na_	Alignment	not modelled	19.5	26	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
96	d2zjre2	Alignment	not modelled	17.2	9	Fold: Ribosomal protein L6 Superfamily: Ribosomal protein L6 Family: Ribosomal protein L6
97	d1ifca_	Alignment	not modelled	15.4	15	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
98	c3pcsB_	Alignment	not modelled	15.2	15	PDB header: protein transport/transferase Chain: B: PDB Molecule: espg; PDBTitle: structure of espg-pak2 autoinhibitory ialpha3 helix complex
99	c2n93A_	Alignment	not modelled	14.9	11	PDB header: lipid binding protein Chain: A: PDB Molecule: fatty acid-binding protein; PDBTitle: solution structure of lcfabp