


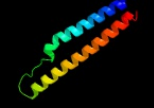

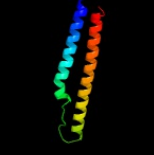






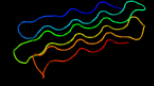

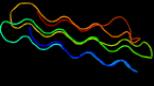






Phyre2

Email	mdejesus@rockefeller.edu
Description	RVBD1068c_(PE_PGRS20)_1190762_1192153
Date	Wed Jul 31 22:05:14 BST 2019
Unique Job ID	d60ed10fd3194460

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c5xfsA_	 Alignment		100.0	47	PDB header: protein transport Chain: A: PDB Molecule: pe family protein pe8; PDBTitle: crystal structure of pe8-ppe15 in complex with esp95 from m.2 tuberculosis
2	d2g38a1	 Alignment		100.0	30	Fold: Ferritin-like Superfamily: PE/PPE dimer-like Family: PE
3	c2g38A_	 Alignment		100.0	30	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: pe family protein; PDBTitle: a pe/pppe protein complex from mycobacterium tuberculosis
4	c3hqvB_	 Alignment		99.3	27	PDB header: structural protein, contractile protein Chain: B: PDB Molecule: collagen alpha-2(i) chain; PDBTitle: low resolution, molecular envelope structure of type i2 collagen in situ determined by fiber diffraction. single3 type i collagen molecule, rigid body refinement
5	c1ygvA_	 Alignment		99.3	33	PDB header: structural protein/contractile protein Chain: A: PDB Molecule: collagen i alpha 1; PDBTitle: the structure of collagen type i. single type i collagen2 molecule: rigid refinement
6	c1y0fB_	 Alignment		99.2	31	PDB header: structural protein/contractile protein Chain: B: PDB Molecule: collagen i alpha 2; PDBTitle: the structure of collagen type i. single type i collagen2 molecule
7	c3bogB_	 Alignment		97.5	37	PDB header: antifreeze protein Chain: B: PDB Molecule: 6.5 kda glycine-rich antifreeze protein; PDBTitle: snow flea antifreeze protein quasi-racemate
8	c3bogA_	 Alignment		97.5	37	PDB header: antifreeze protein Chain: A: PDB Molecule: 6.5 kda glycine-rich antifreeze protein; PDBTitle: snow flea antifreeze protein quasi-racemate
9	c2pneA_	 Alignment		97.3	35	PDB header: antifreeze protein Chain: A: PDB Molecule: 6.5 kda glycine-rich antifreeze protein; PDBTitle: crystal structure of the snow flea antifreeze protein
10	c3boiB_	 Alignment		97.3	35	PDB header: antifreeze protein Chain: B: PDB Molecule: 6.5 kda glycine-rich antifreeze protein; PDBTitle: snow flea antifreeze protein racemate
11	c3boiA_	 Alignment		97.3	35	PDB header: antifreeze protein Chain: A: PDB Molecule: 6.5 kda glycine-rich antifreeze protein; PDBTitle: snow flea antifreeze protein racemate

12	c4iogD_	Alignment		95.2	14	PDB header: unknown function Chain: D: PDB Molecule: secreted protein esxb; PDBTitle: the crystal structure of a secreted protein esxb (wild-type, in p212 space group) from bacillus anthracis str. sterne
13	c1nayC_	Alignment		95.1	23	PDB header: structural protein Chain: C: PDB Molecule: collagen-like peptide; PDBTitle: gpp-foldon:x-ray structure
14	c3gvmA_	Alignment		94.8	14	PDB header: viral protein Chain: A: PDB Molecule: putative uncharacterized protein sag1039; PDBTitle: structure of the homodimeric wxg-100 family protein from streptococcus2 agalactiae
15	c4wj2A_	Alignment		94.8	11	PDB header: unknown function Chain: A: PDB Molecule: antigen mtb48; PDBTitle: mycobacterial protein
16	c5ctdB_	Alignment		94.6	28	PDB header: structural protein Chain: B: PDB Molecule: collagen alpha-2(i) chain,collagen alpha-2(ix) chain; PDBTitle: crystal structure of the type ix collagen nc2 heterotrimerization2 domain with a guest fragment a2a1a1 of type i collagen
17	c5ctiC_	Alignment		94.3	26	PDB header: structural protein Chain: C: PDB Molecule: collagen alpha-1(i) chain,collagen alpha-3(ix) chain; PDBTitle: crystal structure of the type ix collagen nc2 heterotrimerization2 domain with a guest fragment a2a1a1 of type i collagen (native form)
18	c5ctdA_	Alignment		93.9	28	PDB header: structural protein Chain: A: PDB Molecule: collagen alpha-1(i) chain,collagen alpha-1(ix) chain; PDBTitle: crystal structure of the type ix collagen nc2 heterotrimerization2 domain with a guest fragment a2a1a1 of type i collagen
19	c2vs0B_	Alignment		92.5	11	PDB header: cell invasion Chain: B: PDB Molecule: virulence factor esxa; PDBTitle: structural analysis of homodimeric staphylococcal aureus2 virulence factor esxa
20	d1wa8a1	Alignment		92.0	15	Fold: Ferritin-like Superfamily: EsxAB dimer-like Family: ESAT-6 like
21	c3zbhC_	Alignment	not modelled	90.9	15	PDB header: unknown function Chain: C: PDB Molecule: esxa; PDBTitle: geobacillus thermodenitrificans esxa crystal form i
22	c2kg7B_	Alignment	not modelled	80.5	13	PDB header: unknown function Chain: B: PDB Molecule: esat-6-like protein esxh; PDBTitle: structure and features of the complex formed by the tuberculosis2 virulence factors rv0287 and rv0288
23	c4lwsA_	Alignment	not modelled	79.2	18	PDB header: unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: esxa : esxb (semet) hetero-dimer from thermomonospora curvata
24	c2klwA_	Alignment	not modelled	78.5	30	PDB header: de novo protein Chain: A: PDB Molecule: (pkg)10; PDBTitle: solution structure of an abc collagen heterotrimer reveals a2 single-register helix stabilized by electrostatic3 interactions
25	c2cuoF_	Alignment	not modelled	70.2	41	PDB header: structural protein Chain: F: PDB Molecule: collagen model peptide (pro-pro-gly)9; PDBTitle: collagen model peptide (pro-pro-gly)9
26	c2cuoC_	Alignment	not modelled	70.2	41	PDB header: structural protein Chain: C: PDB Molecule: collagen model peptide (pro-pro-gly)9; PDBTitle: collagen model peptide (pro-pro-gly)9
27	c3ah9F_	Alignment	not modelled	64.6	44	PDB header: structural protein Chain: F: PDB Molecule: collagen-like peptide; PDBTitle: crystal structure of (pro-pro-gly)9 at 1.1 a resolution
28	c4lwsB_	Alignment	not modelled	63.3	16	PDB header: unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: esxa : esxb (semet) hetero-dimer from thermomonospora curvata
						PDB header: structural protein

29	c3ah9A_	Alignment	not modelled	61.6	48	Chain: A: PDB Molecule: collagen-like peptide; PDBTitle: crystal structure of (pro-pro-gly)9 at 1.1 a resolution
30	c3ah9B_	Alignment	not modelled	61.1	46	PDB header: structural protein Chain: B: PDB Molecule: collagen-like peptide; PDBTitle: crystal structure of (pro-pro-gly)9 at 1.1 a resolution
31	c3ah9E_	Alignment	not modelled	61.1	46	PDB header: structural protein Chain: E: PDB Molecule: collagen-like peptide; PDBTitle: crystal structure of (pro-pro-gly)9 at 1.1 a resolution
32	c3ah9C_	Alignment	not modelled	61.1	46	PDB header: structural protein Chain: C: PDB Molecule: collagen-like peptide; PDBTitle: crystal structure of (pro-pro-gly)9 at 1.1 a resolution
33	d1wa8b1	Alignment	not modelled	59.3	15	Fold: Ferritin-like Superfamily: EsxAB dimer-like Family: ESAT-6 like
34	c2cuoB_	Alignment	not modelled	58.7	46	PDB header: structural protein Chain: B: PDB Molecule: collagen model peptide (pro-pro-gly)9; PDBTitle: collagen model peptide (pro-pro-gly)9
35	c2cuoD_	Alignment	not modelled	58.7	46	PDB header: structural protein Chain: D: PDB Molecule: collagen model peptide (pro-pro-gly)9; PDBTitle: collagen model peptide (pro-pro-gly)9
36	c2cuoA_	Alignment	not modelled	58.7	46	PDB header: structural protein Chain: A: PDB Molecule: collagen model peptide (pro-pro-gly)9; PDBTitle: collagen model peptide (pro-pro-gly)9
37	c2cuoE_	Alignment	not modelled	58.7	46	PDB header: structural protein Chain: E: PDB Molecule: collagen model peptide (pro-pro-gly)9; PDBTitle: collagen model peptide (pro-pro-gly)9
38	c4rglA_	Alignment	not modelled	56.4	21	PDB header: dna binding protein Chain: A: PDB Molecule: filamentation induced by camp protein fic; PDBTitle: crystal structure of a fic family protein (dde_2494) from <i>Desulfovibrio desulfuricans</i> g20 at 2.70 a resolution
39	c3ah9D_	Alignment	not modelled	55.8	43	PDB header: structural protein Chain: D: PDB Molecule: collagen-like peptide; PDBTitle: crystal structure of (pro-pro-gly)9 at 1.1 a resolution
40	c3a0mF_	Alignment	not modelled	54.8	44	PDB header: structural protein Chain: F: PDB Molecule: collagen-like peptide; PDBTitle: structure of (ppg)4-ovg-(ppg)4, monoclinic, twinned crystal
41	c2w0cR_	Alignment	not modelled	51.1	29	PDB header: virus Chain: R: PDB Molecule: protein p3; PDBTitle: x-ray structure of the entire lipid-containing bacteriophage pm2
42	c3onjA_	Alignment	not modelled	49.5	13	PDB header: protein transport Chain: A: PDB Molecule: vt-snare vti1; PDBTitle: crystal structure of yeast vti1p_habc domain
43	c3a19B_	Alignment	not modelled	48.8	39	PDB header: structural protein Chain: B: PDB Molecule: collagen-like peptide; PDBTitle: structure of (ppg)4-oog-(ppg)4_h monoclinic, twinned crystal
44	c2d3hB_	Alignment	not modelled	48.8	39	PDB header: structural protein Chain: B: PDB Molecule: collagen model peptides (pro-pro-gly)4-hyp-hyp- PDBTitle: crystal structures of collagen model peptides (pro-pro-gly)2 4-hyp-hyp-gly-(pro-pro-gly)4
45	c2d3hA_	Alignment	not modelled	48.8	39	PDB header: structural protein Chain: A: PDB Molecule: collagen model peptides (pro-pro-gly)4-hyp-hyp- PDBTitle: crystal structures of collagen model peptides (pro-pro-gly)2 4-hyp-hyp-gly-(pro-pro-gly)4
46	c3v4cB_	Alignment	not modelled	45.1	12	PDB header: oxidoreductase Chain: B: PDB Molecule: aldehyde dehydrogenase (nadp+); PDBTitle: crystal structure of a semialdehyde dehydrogenase from <i>Sinorhizobium meliloti</i> 1021
47	c3a19A_	Alignment	not modelled	42.5	41	PDB header: structural protein Chain: A: PDB Molecule: collagen-like peptide; PDBTitle: structure of (ppg)4-oog-(ppg)4_h monoclinic, twinned crystal
48	c2d3hC_	Alignment	not modelled	42.5	41	PDB header: structural protein Chain: C: PDB Molecule: collagen model peptides (pro-pro-gly)4-hyp-hyp- PDBTitle: crystal structures of collagen model peptides (pro-pro-gly)2 4-hyp-hyp-gly-(pro-pro-gly)4
49	c1k6fD_	Alignment	not modelled	40.0	28	PDB header: structural protein Chain: D: PDB Molecule: collagen triple helix; PDBTitle: crystal structure of the collagen triple helix model [(pro-pro-gly)2 10]3
50	c1k6fA_	Alignment	not modelled	40.0	28	PDB header: structural protein Chain: A: PDB Molecule: collagen triple helix; PDBTitle: crystal structure of the collagen triple helix model [(pro-pro-gly)2 10]3
51	c1k6fB_	Alignment	not modelled	40.0	28	PDB header: structural protein Chain: B: PDB Molecule: collagen triple helix; PDBTitle: crystal structure of the collagen triple helix model [(pro-pro-gly)2 10]3
52	c1k6fF_	Alignment	not modelled	40.0	28	PDB header: structural protein Chain: F: PDB Molecule: collagen triple helix; PDBTitle: crystal structure of the collagen triple helix model [(pro-pro-gly)2 10]3
53	c1k6fC_	Alignment	not modelled	40.0	28	PDB header: structural protein Chain: C: PDB Molecule: collagen triple helix; PDBTitle: crystal structure of the collagen triple helix model [(pro-pro-gly)2 10]3
54	c1k6fE_	Alignment	not modelled	40.0	28	PDB header: structural protein Chain: E: PDB Molecule: collagen triple helix; PDBTitle: crystal structure of the collagen triple helix model [(pro-pro-gly)2 10]3

55	d1lghb_	Alignment	not modelled	38.6	36	Fold: Light-harvesting complex subunits Superfamily: Light-harvesting complex subunits Family: Light-harvesting complex subunits
56	c3a19E_	Alignment	not modelled	38.5	41	PDB header: structural protein Chain: E: PDB Molecule: collagen-like peptide; PDBTitle: structure of (ppg)4-oog-(ppg)4_h monoclinic, twinned crystal
57	c3a19C_	Alignment	not modelled	38.5	41	PDB header: structural protein Chain: C: PDB Molecule: collagen-like peptide; PDBTitle: structure of (ppg)4-oog-(ppg)4_h monoclinic, twinned crystal
58	c2vsgB_	Alignment	not modelled	36.7	13	PDB header: membrane protein Chain: B: PDB Molecule: variant surface glycoprotein iltat 1.24; PDBTitle: a structural motif in the variant surface glycoproteins of trypanosoma2 brucei
59	c5xfxB_	Alignment	not modelled	36.1	21	PDB header: protein transport Chain: B: PDB Molecule: ppe family protein ppe15; PDBTitle: crystal structure of pe8-ppe15 in complex with esp95 from m.2 tuberculosis
60	c5u07B_	Alignment	not modelled	35.7	11	PDB header: immune system Chain: B: PDB Molecule: cse2; PDBTitle: crispr rna-guided surveillance complex
61	c3u8pB_	Alignment	not modelled	34.0	18	PDB header: fluorescent protein, electron transport Chain: B: PDB Molecule: cytochrome b562 integral fusion with enhanced green PDBTitle: cytochrome b562 integral fusion with egfp
62	c2d3hE_	Alignment	not modelled	33.3	43	PDB header: structural protein Chain: E: PDB Molecule: collagen model peptides (pro-pro-gly)4-hyp-hyp- PDBTitle: crystal structures of collagen model peptides (pro-pro-gly)2 4-hyp-hyp-gly-(pro-pro-gly)4
63	c6g7oA_	Alignment	not modelled	32.2	18	PDB header: membrane protein Chain: A: PDB Molecule: alkaline ceramidase 3,soluble cytochrome b562; PDBTitle: crystal structure of human alkaline ceramidase 3 (acer3) at 2.72 angstrom resolution
64	c3a08C_	Alignment	not modelled	31.8	45	PDB header: structural protein Chain: C: PDB Molecule: collagen-like peptide; PDBTitle: structure of (ppg)4-oog-(ppg)4, monoclinic, twinned crystal
65	c3a19D_	Alignment	not modelled	31.7	43	PDB header: structural protein Chain: D: PDB Molecule: collagen-like peptide; PDBTitle: structure of (ppg)4-oog-(ppg)4_h monoclinic, twinned crystal
66	c4c3sA_	Alignment	not modelled	30.9	12	PDB header: oxidoreductase Chain: A: PDB Molecule: aldehyde dehydrogenase; PDBTitle: structure of a propionaldehyde dehydrogenase from the clostridium2 phytofermentans fucose utilisation bacterial microcompartment
67	c1wrgA_	Alignment	not modelled	29.5	29	PDB header: membrane protein Chain: A: PDB Molecule: light-harvesting protein b-880, beta chain; PDBTitle: light-harvesting complex 1 beta subunit from wild-type2 rhodospirillum rubrum
68	c2uwjE_	Alignment	not modelled	28.9	19	PDB header: chaperone Chain: E: PDB Molecule: type iii export protein psce; PDBTitle: structure of the heterotrimeric complex which regulates type iii2 secretion needle formation
69	c3a08E_	Alignment	not modelled	28.5	45	PDB header: structural protein Chain: E: PDB Molecule: collagen-like peptide; PDBTitle: structure of (ppg)4-oog-(ppg)4, monoclinic, twinned crystal
70	c3h6pB_	Alignment	not modelled	28.1	32	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: esat-6 like protein esxs; PDBTitle: crystal structure of rv3019c-rv3020c from mycobacterium tuberculosis
71	c3a08D_	Alignment	not modelled	27.0	45	PDB header: structural protein Chain: D: PDB Molecule: collagen-like peptide; PDBTitle: structure of (ppg)4-oog-(ppg)4, monoclinic, twinned crystal
72	c3a19F_	Alignment	not modelled	27.0	45	PDB header: structural protein Chain: F: PDB Molecule: collagen-like peptide; PDBTitle: structure of (ppg)4-oog-(ppg)4_h monoclinic, twinned crystal
73	c2d3hD_	Alignment	not modelled	27.0	45	PDB header: structural protein Chain: D: PDB Molecule: collagen model peptides (pro-pro-gly)4-hyp-hyp- PDBTitle: crystal structures of collagen model peptides (pro-pro-gly)2 4-hyp-hyp-gly-(pro-pro-gly)4
74	c1gz3B_	Alignment	not modelled	27.0	18	PDB header: oxidoreductase Chain: B: PDB Molecule: nad-dependent malic enzyme, mitochondrial; PDBTitle: molecular mechanism for the regulation of human mitochondrial nad(p)+2 dependent malic enzyme by atp and fumarate
75	c1bpoA_	Alignment	not modelled	26.4	16	PDB header: membrane protein Chain: A: PDB Molecule: protein (clathrin); PDBTitle: clathrin heavy-chain terminal domain and linker
76	c3a0aD_	Alignment	not modelled	26.2	45	PDB header: structural protein Chain: D: PDB Molecule: collagen-like peptide; PDBTitle: structure of (ppg)4-opg-(ppg)4, monoclinic, twinned crystal
77	c3eqxB_	Alignment	not modelled	26.0	15	PDB header: dna binding protein Chain: B: PDB Molecule: fic domain containing transcriptional regulator; PDBTitle: crystal structure of a fic family protein (so_4266) from shewanella2 oneidensis at 1.6 a resolution
78	c3admD_	Alignment	not modelled	24.8	50	PDB header: structural protein Chain: D: PDB Molecule: collagen-like peptide; PDBTitle: crystal structure of (pro-pro-gly)4-hyp-ser-gly-(pro-pro-gly)4
						PDB header: hydrolase/hydrolase inhibitor

79	c1jiwP_	Alignment	not modelled	24.3	22	Chain: P: PDB Molecule: alkaline metalloproteinase; PDBTitle: crystal structure of the apr-aprin complex
80	d1bpoa1	Alignment	not modelled	23.7	17	Fold: alpha-alpha superhelix Superfamily: ARM repeat Family: Clathrin heavy-chain linker domain
81	c3admB_	Alignment	not modelled	23.5	50	PDB header: structural protein Chain: B: PDB Molecule: collagen-like peptide; PDBTitle: crystal structure of (pro-pro-gly)4-hyp-ser-gly-(pro-pro-gly)4
82	c3admA_	Alignment	not modelled	23.5	50	PDB header: structural protein Chain: A: PDB Molecule: collagen-like peptide; PDBTitle: crystal structure of (pro-pro-gly)4-hyp-ser-gly-(pro-pro-gly)4
83	c3admE_	Alignment	not modelled	23.5	50	PDB header: structural protein Chain: E: PDB Molecule: collagen-like peptide; PDBTitle: crystal structure of (pro-pro-gly)4-hyp-ser-gly-(pro-pro-gly)4
84	c3admF_	Alignment	not modelled	23.5	50	PDB header: structural protein Chain: F: PDB Molecule: collagen-like peptide; PDBTitle: crystal structure of (pro-pro-gly)4-hyp-ser-gly-(pro-pro-gly)4
85	c3a08B_	Alignment	not modelled	23.4	38	PDB header: structural protein Chain: B: PDB Molecule: collagen-like peptide; PDBTitle: structure of (ppg)4-oog-(ppg)4, monoclinic, twinned crystal
86	c3a08A_	Alignment	not modelled	23.4	38	PDB header: structural protein Chain: A: PDB Molecule: collagen-like peptide; PDBTitle: structure of (ppg)4-oog-(ppg)4, monoclinic, twinned crystal
87	c3cucB_	Alignment	not modelled	22.9	17	PDB header: signaling protein Chain: B: PDB Molecule: protein of unknown function with a fic domain; PDBTitle: crystal structure of a fic domain containing signaling protein2 (bt_2513) from bacteroides thetaiotaomicron vpi-5482 at 2.71 a3 resolution
88	c3abnA_	Alignment	not modelled	22.3	45	PDB header: structural protein Chain: A: PDB Molecule: collagen-like peptide; PDBTitle: crystal structure of (pro-pro-gly)4-hyp-asp-gly-(pro-pro-gly)4 at 1.022 a
89	d1n7ka_	Alignment	not modelled	21.5	15	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class I aldolase
90	c4krrA_	Alignment	not modelled	21.2	12	PDB header: signaling protein Chain: A: PDB Molecule: wnt inhibitor of dorsal protein; PDBTitle: crystal structure of drosophila wntd n-terminal domain-linker2 (residues 31-240)
91	c6et5u_	Alignment	not modelled	21.1	21	PDB header: photosynthesis Chain: U: PDB Molecule: light-harvesting protein b-1015 gamma chain; PDBTitle: reaction centre light harvesting complex 1 from blc. viridis
92	d2f6qa1	Alignment	not modelled	20.6	17	Fold: ClpP/crotonase Superfamily: ClpP/crotonase Family: Crotonase-like
93	d2qtia1	Alignment	not modelled	20.6	20	Fold: YejL-like Superfamily: YejL-like Family: YejL-like
94	c1o0sB_	Alignment	not modelled	20.4	18	PDB header: oxidoreductase Chain: B: PDB Molecule: nad-dependent malic enzyme; PDBTitle: crystal structure of ascaris suum malic enzyme complexed with nadh
95	c3a1hB_	Alignment	not modelled	20.1	45	PDB header: structural protein Chain: B: PDB Molecule: collagen-like peptide; PDBTitle: crystal structure analysis of the collagen-like peptide, (ppg)4-otg-2 (ppg)4
96	c4x2eA_	Alignment	not modelled	19.8	21	PDB header: transferase Chain: A: PDB Molecule: fic family protein putative filamentation induced by camp PDBTitle: clostridium difficile wild type fic protein
97	c6nb3B_	Alignment	not modelled	19.7	17	PDB header: virus Chain: B: PDB Molecule: spike glycoprotein; PDBTitle: mers-cov complex with human neutralizing lca60 antibody fab fragment2 (state 1)
98	c3a0aB_	Alignment	not modelled	19.5	38	PDB header: structural protein Chain: B: PDB Molecule: collagen-like peptide; PDBTitle: structure of (ppg)4-opg-(ppg)4, monoclinic, twinned crystal
99	d2g38b1	Alignment	not modelled	19.5	20	Fold: Ferritin-like Superfamily: PE/PPE dimer-like Family: PPE