




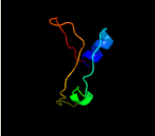

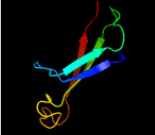

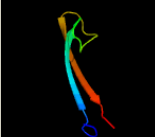

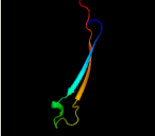

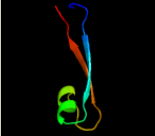



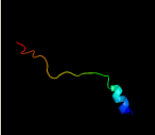

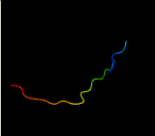

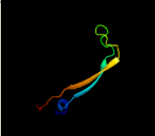
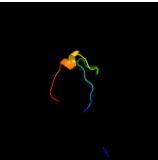
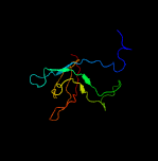
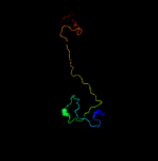
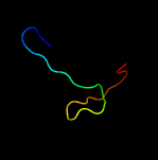
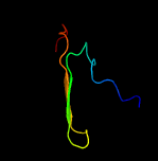
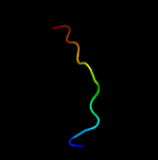
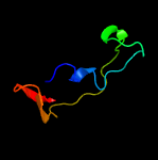

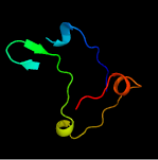


# Phyre2

Email mdejesus@rockefeller.edu  
 Description RVBD1926c\_(mpt63)\_2178964\_2179443  
 Date Fri Aug 2 13:30:54 BST 2019  
 Unique Job ID ef52a856713e2637

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	<a href="#">d1lmia_</a>	 Alignment		100.0	99	<b>Fold:</b> Immunoglobulin-like beta-sandwich <b>Superfamily:</b> Antigen MPT63/MPB63 (immunoprotective extracellular protein) <b>Family:</b> Antigen MPT63/MPB63 (immunoprotective extracellular protein)
2	<a href="#">c3cfuA_</a>	 Alignment		95.8	15	<b>PDB header:</b> lipoprotein <b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized lipoprotein yjha; <b>PDBTitle:</b> crystal structure of the yjha protein from bacillus subtilis.2 northeast structural genomics consortium target sr562
3	<a href="#">c4r4gA_</a>	 Alignment		76.0	15	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> putative lipoprotein ycda; <b>PDBTitle:</b> crystal structure of a putative lipoprotein (ycda) from bacillus2 subtilis subsp. subtilis str. 168 at 2.62 a resolution
4	<a href="#">d1ix2a_</a>	 Alignment		74.6	31	<b>Fold:</b> Immunoglobulin-like beta-sandwich <b>Superfamily:</b> E set domains <b>Family:</b> Copper resistance protein C (CopC, PcoC)
5	<a href="#">c6nfgC_</a>	 Alignment		71.6	50	<b>PDB header:</b> metal binding protein <b>Chain:</b> C: <b>PDB Molecule:</b> copc; <b>PDBTitle:</b> copc from pseudomonas fluorescens
6	<a href="#">c5icuA_</a>	 Alignment		69.2	35	<b>PDB header:</b> chaperone <b>Chain:</b> A: <b>PDB Molecule:</b> copc; <b>PDBTitle:</b> the crystal structure of copc from methylosinus trichosporium ob3b
7	<a href="#">d2c9qa1</a>	 Alignment		64.9	43	<b>Fold:</b> Immunoglobulin-like beta-sandwich <b>Superfamily:</b> E set domains <b>Family:</b> Copper resistance protein C (CopC, PcoC)
8	<a href="#">c4lesA_</a>	 Alignment		59.0	10	<b>PDB header:</b> unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> protein - conserved hypothetical; <b>PDBTitle:</b> 2.2 angstrom crystal structure of conserved hypothetical protein from2 bacillus anthracis.
9	<a href="#">c1avcA_</a>	 Alignment		35.7	41	<b>PDB header:</b> calcium/phospholipid-binding protein <b>Chain:</b> A: <b>PDB Molecule:</b> annexin vi; <b>PDBTitle:</b> bovine annexin vi (calcium-bound)
10	<a href="#">c4o3vA_</a>	 Alignment		35.2	14	<b>PDB header:</b> protein transport <b>Chain:</b> A: <b>PDB Molecule:</b> virb8-like protein of type iv secretion system; <b>PDBTitle:</b> crystal structure of a virb8-like protein of type iv secretion system2 from rickettsia typhi
11	<a href="#">c5n1tM_</a>	 Alignment		26.5	35	<b>PDB header:</b> oxidoreductase <b>Chain:</b> M: <b>PDB Molecule:</b> copc; <b>PDBTitle:</b> crystal structure of complex between flavocytochrome c and copper2 chaperone copc from t. paradoxus

12	<a href="#">d1wmx_b</a>	Alignment		23.9	44	<b>Fold:</b> Galactose-binding domain-like <b>Superfamily:</b> Galactose-binding domain-like <b>Family:</b> Family 30 carbohydrate binding module, CBM30 (PKD repeat)
13	<a href="#">d1k0ha_</a>	Alignment		23.6	17	<b>Fold:</b> Phage tail proteins <b>Superfamily:</b> Phage tail proteins <b>Family:</b> gpFII-like
14	<a href="#">c5az4A_</a>	Alignment		18.9	15	<b>PDB header:</b> motor protein <b>Chain:</b> A: <b>PDB Molecule:</b> flagellar hook subunit protein; <b>PDBTitle:</b> crystal structure of a 79kda fragment of flge, the hook protein from2 campylobacter jejuni
15	<a href="#">d1dmla2</a>	Alignment		15.5	4	<b>Fold:</b> DNA clamp <b>Superfamily:</b> DNA clamp <b>Family:</b> DNA polymerase processivity factor
16	<a href="#">c6e8aA_</a>	Alignment		15.0	22	<b>PDB header:</b> unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> duf1795 domain-containing protein; <b>PDBTitle:</b> crystal structure of dcrb from salmonella enterica at 1.92 angstroms2 resolution
17	<a href="#">c4r8aF_</a>	Alignment		14.2	31	<b>PDB header:</b> hydrolase/dna <b>Chain:</b> F: <b>PDB Molecule:</b> uncharacterized protein; <b>PDBTitle:</b> crystal structure of pafan1 - 5' flap dna complex
18	<a href="#">c2qp2A_</a>	Alignment		13.1	25	<b>PDB header:</b> unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> unknown protein; <b>PDBTitle:</b> structure of a macpf/perforin-like protein
19	<a href="#">c2pr1B_</a>	Alignment		12.9	50	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> uncharacterized n-acetyltransferase ylbp; <b>PDBTitle:</b> crystal structure of the bacillus subtilis n-acetyltransferase ylbp2 protein in complex with coenzyme-a
20	<a href="#">c5h9xA_</a>	Alignment		12.8	29	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> beta-1,3-glucanase; <b>PDBTitle:</b> crystal structure of gh family 64 laminaripentaose-producing beta-1,3-2 glucanase from paenibacillus barengoltzii
21	<a href="#">c3gqgD_</a>	Alignment	not modelled	12.0	20	<b>PDB header:</b> splicing <b>Chain:</b> D: <b>PDB Molecule:</b> protein unc-119 homolog a; <b>PDBTitle:</b> crystal structure of the human retinal protein 4 (unc-1192 homolog a). northeast structural genomics consortium3 target hr3066a
22	<a href="#">c2kykA_</a>	Alignment	not modelled	10.7	26	<b>PDB header:</b> ligase <b>Chain:</b> A: <b>PDB Molecule:</b> e3 ubiquitin-protein ligase itchy homolog; <b>PDBTitle:</b> the sandwich region between two lmp2a py motif regulates the2 interaction between aip4ww2domain and py motif
23	<a href="#">c4m8aA_</a>	Alignment	not modelled	10.0	29	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> atp-dependent zinc metalloprotease ftsh; <b>PDBTitle:</b> crystal structure of thermotoga maritima ftsh periplasmic domain
24	<a href="#">d1e88a3</a>	Alignment	not modelled	9.7	27	<b>Fold:</b> Fnl-like domain <b>Superfamily:</b> Fnl-like domain <b>Family:</b> Fibronectin type I module
25	<a href="#">d1dmla1</a>	Alignment	not modelled	9.3	15	<b>Fold:</b> DNA clamp <b>Superfamily:</b> DNA clamp <b>Family:</b> DNA polymerase processivity factor
26	<a href="#">c6eorD_</a>	Alignment	not modelled	8.4	14	<b>PDB header:</b> hydrolase <b>Chain:</b> D: <b>PDB Molecule:</b> dipeptidyl peptidase 9; <b>PDBTitle:</b> dpp9 - 1g244
27	<a href="#">c1vw4V_</a>	Alignment	not modelled	8.4	19	<b>PDB header:</b> ribosome <b>Chain:</b> V: <b>PDB Molecule:</b> 54s ribosomal protein l36, mitochondrial; <b>PDBTitle:</b> structure of the yeast mitochondrial large ribosomal subunit
28	<a href="#">d1ywka1</a>	Alignment	not modelled	8.2	17	<b>Fold:</b> Double-stranded beta-helix <b>Superfamily:</b> RmIC-like cupins <b>Family:</b> Kdul-like

29	<a href="#">d3dtub1</a>	Alignment	not modelled	8.1	22	<b>Fold:</b> Cupredoxin-like <b>Superfamily:</b> Cupredoxins <b>Family:</b> Periplasmic domain of cytochrome c oxidase subunit II
30	<a href="#">c4txvB</a>	Alignment	not modelled	7.7	19	<b>PDB header:</b> protein binding <b>Chain:</b> B: <b>PDB Molecule:</b> cytochrome c oxidase subunit 2; <b>PDBTitle:</b> crystal structure of the mixed disulfide intermediate between2 thioredoxin-like tlpas(c110s) and subunit ii of cytochrome c oxidase3 coxcpd (c233s)
31	<a href="#">c5u6fA</a>	Alignment	not modelled	7.7	12	<b>PDB header:</b> cell adhesion <b>Chain:</b> A: <b>PDB Molecule:</b> lpxtg-motif cell wall anchor domain protein; <b>PDBTitle:</b> bacterial adhesin from mobiluncus mulieris containing intramolecular2 disulfide, isopeptide, and ester bond cross-links (space group p21)
32	<a href="#">d1a6qa1</a>	Alignment	not modelled	7.4	25	<b>Fold:</b> Another 3-helical bundle <b>Superfamily:</b> Protein serine/threonine phosphatase 2C, C-terminal domain <b>Family:</b> Protein serine/threonine phosphatase 2C, C-terminal domain
33	<a href="#">c4ribA</a>	Alignment	not modelled	7.3	31	<b>PDB header:</b> hydrolase/dna <b>Chain:</b> A: <b>PDB Molecule:</b> fanconi-associated nuclease 1; <b>PDBTitle:</b> fan1 nuclease bound to 5' phosphorylated p(dt) single flap dna
34	<a href="#">c4g6vE</a>	Alignment	not modelled	7.2	19	<b>PDB header:</b> toxin <b>Chain:</b> E: <b>PDB Molecule:</b> adhesin/hemolysin; <b>PDBTitle:</b> cdia-ct/cdii toxin and immunity complex from burkholderia pseudomallei
35	<a href="#">d1iwla</a>	Alignment	not modelled	6.9	19	<b>Fold:</b> LoIA-like prokaryotic lipoproteins and lipoprotein localization factors <b>Superfamily:</b> Prokaryotic lipoproteins and lipoprotein localization factors <b>Family:</b> Outer-membrane lipoproteins carrier protein LoIA
36	<a href="#">c2rttA</a>	Alignment	not modelled	6.8	19	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> chic; <b>PDBTitle:</b> solution structure of the chitin-binding domain of chi18ac from2 streptomyces coelicolor
37	<a href="#">d3ehbb1</a>	Alignment	not modelled	6.8	19	<b>Fold:</b> Cupredoxin-like <b>Superfamily:</b> Cupredoxins <b>Family:</b> Periplasmic domain of cytochrome c oxidase subunit II
38	<a href="#">c1ymzA</a>	Alignment	not modelled	6.4	36	<b>PDB header:</b> unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> cc45; <b>PDBTitle:</b> cc45, an artificial ww domain designed using statistical2 coupling analysis
39	<a href="#">d1pf4a1</a>	Alignment	not modelled	6.1	24	<b>Fold:</b> P-loop containing nucleoside triphosphate hydrolases <b>Superfamily:</b> P-loop containing nucleoside triphosphate hydrolases <b>Family:</b> ABC transporter ATPase domain-like
40	<a href="#">c2kt8A</a>	Alignment	not modelled	5.8	25	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> probable surface protein; <b>PDBTitle:</b> solution nmr structure of the cpe1231(468-535) protein from2 clostridium perfringens, northeast structural genomics3 consortium target cpr82b
41	<a href="#">d1w7ca3</a>	Alignment	not modelled	5.8	35	<b>Fold:</b> Cystatin-like <b>Superfamily:</b> Amine oxidase N-terminal region <b>Family:</b> Amine oxidase N-terminal region
42	<a href="#">d2ie7a1</a>	Alignment	not modelled	5.8	53	<b>Fold:</b> Annexin <b>Superfamily:</b> Annexin <b>Family:</b> Annexin
43	<a href="#">d1nmva1</a>	Alignment	not modelled	5.7	17	<b>Fold:</b> WW domain-like <b>Superfamily:</b> WW domain <b>Family:</b> WW domain
44	<a href="#">d1exha</a>	Alignment	not modelled	5.6	21	<b>Fold:</b> Common fold of diphtheria toxin/transcription factors/cytochrome f <b>Superfamily:</b> Carbohydrate-binding domain <b>Family:</b> Cellulose-binding domain family II
45	<a href="#">c6itcB</a>	Alignment	not modelled	5.6	42	<b>PDB header:</b> protein transport <b>Chain:</b> B: <b>PDB Molecule:</b> translocating peptide; <b>PDBTitle:</b> structure of a substrate engaged seca-secy protein translocation2 machine
46	<a href="#">c4je3A</a>	Alignment	not modelled	5.5	43	<b>PDB header:</b> cell cycle <b>Chain:</b> A: <b>PDB Molecule:</b> central kinetochore subunit iml3; <b>PDBTitle:</b> an iml3-chl4 heterodimer links the core centromere to factors required2 for accurate chromosome segregation
47	<a href="#">c4lqzA</a>	Alignment	not modelled	5.4	46	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein; <b>PDBTitle:</b> crystal structure of a duf4909 family protein (sav1798) from2 staphylococcus aureus subsp. aureus mu50 at 1.92 a resolution
48	<a href="#">d1v54b1</a>	Alignment	not modelled	5.3	30	<b>Fold:</b> Cupredoxin-like <b>Superfamily:</b> Cupredoxins <b>Family:</b> Periplasmic domain of cytochrome c oxidase subunit II
49	<a href="#">d1r2ja2</a>	Alignment	not modelled	5.2	21	<b>Fold:</b> Acyl-CoA dehydrogenase NM domain-like <b>Superfamily:</b> Acyl-CoA dehydrogenase NM domain-like <b>Family:</b> Medium chain acyl-CoA dehydrogenase, NM (N-terminal and middle) domains