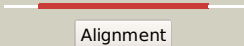

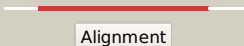

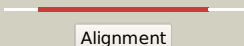







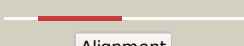


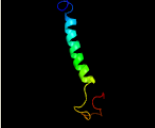



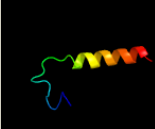


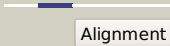
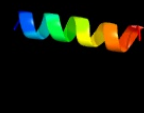
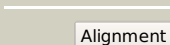

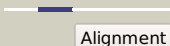
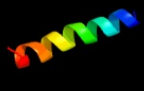

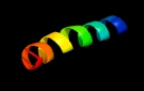
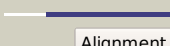
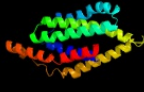
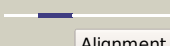
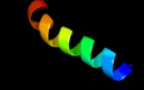
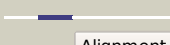





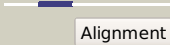
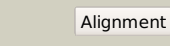
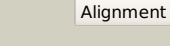
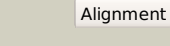
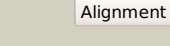
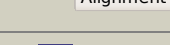




# Phyre2


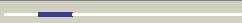
Email	mdejesus@rockefeller.edu
Description	RVBD2729c (-) _3041580_3042485
Date	Wed Aug 7 12:50:38 BST 2019
Unique Job ID	b6736830df27cb61

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	<a href="#">c5i20E_</a>	 Alignment		100.0	16	<b>PDB header:</b> membrane protein <b>Chain:</b> E: <b>PDB Molecule:</b> uncharacterized protein; <b>PDBTitle:</b> crystal structure of protein
2	<a href="#">c5i20C_</a>	 Alignment		100.0	15	<b>PDB header:</b> membrane protein <b>Chain:</b> C: <b>PDB Molecule:</b> uncharacterized protein; <b>PDBTitle:</b> crystal structure of protein
3	<a href="#">c6oh2A_</a>	 Alignment		100.0	12	<b>PDB header:</b> transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> cmp-sialic acid transporter; <b>PDBTitle:</b> x-ray crystal structure of the mouse cmp-sialic acid transporter in2 complex with cmp, by lipidic cubic phase
4	<a href="#">c5ogeE_</a>	 Alignment		100.0	13	<b>PDB header:</b> membrane protein <b>Chain:</b> E: <b>PDB Molecule:</b> gdp-mannose transporter 1; <b>PDBTitle:</b> crystal structure of a nucleotide sugar transporter
5	<a href="#">c6i1rA_</a>	 Alignment		100.0	12	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> cmp-sialic acid transporter 1; <b>PDBTitle:</b> crystal structure of cmp bound cst in an outward facing conformation
6	<a href="#">c5y79A_</a>	 Alignment		99.9	10	<b>PDB header:</b> transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> putative hexose phosphate translocator; <b>PDBTitle:</b> crystal structure of the triose-phosphate/phosphate translocator in2 complex with 3-phosphoglycerate
7	<a href="#">d1s7ba_</a>	 Alignment		97.7	19	<b>Fold:</b> Multidrug resistance efflux transporter EmrE <b>Superfamily:</b> Multidrug resistance efflux transporter EmrE <b>Family:</b> Multidrug resistance efflux transporter EmrE
8	<a href="#">c6nbxG_</a>	 Alignment		15.4	12	<b>PDB header:</b> oxidoreductase <b>Chain:</b> G: <b>PDB Molecule:</b> nadh-quinone oxidoreductase subunit j; <b>PDBTitle:</b> t.elongatus ndh (data-set 2)
9	<a href="#">c2i68B_</a>	 Alignment		14.6	15	<b>PDB header:</b> transport protein <b>Chain:</b> B: <b>PDB Molecule:</b> protein emre; <b>PDBTitle:</b> cryo-em based theoretical model structure of transmembrane2 domain of the multidrug-resistance antiporter from e. coli3 emre
10	<a href="#">c6hwhb_</a>	 Alignment		11.5	19	<b>PDB header:</b> electron transport <b>Chain:</b> B: <b>PDB Molecule:</b> ubiquinol-cytochrome c reductase iron-sulfur subunit; <b>PDBTitle:</b> structure of a functional obligate respiratory supercomplex from2 mycobacterium smegmatis
11	<a href="#">c3a0hL_</a>	 Alignment		7.5	33	<b>PDB header:</b> electron transport <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein l; <b>PDBTitle:</b> crystal structure of i-substituted photosystem ii complex

12	<a href="#">c3a0hl_</a>	 Alignment		7.5	33	<b>PDB header:</b> electron transport <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> crystal structure of i-substituted photosystem ii complex
13	<a href="#">c2lp1A_</a>	 Alignment		6.8	21	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> c99; <b>PDBTitle:</b> the solution nmr structure of the transmembrane c-terminal domain of2 the amyloid precursor protein (c99)
14	<a href="#">c3a0bl_</a>	 Alignment		5.9	27	<b>PDB header:</b> electron transport <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> crystal structure of br-substituted photosystem ii complex
15	<a href="#">c3a0bL_</a>	 Alignment		5.9	27	<b>PDB header:</b> electron transport <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> crystal structure of br-substituted photosystem ii complex
16	<a href="#">c3o7pA_</a>	 Alignment		5.3	5	<b>PDB header:</b> transport protein <b>Chain:</b> A: <b>PDB Molecule:</b> l-fucose-proton symporter; <b>PDBTitle:</b> crystal structure of the e.coli fucose:proton symporter, fucp (n162a)
17	<a href="#">c4pj0L_</a>	 Alignment		5.3	29	<b>PDB header:</b> oxidoreductase, electron transport <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> structure of t.elongatus photosystem ii, rows of dimers crystal2 packing
18	<a href="#">c4pj0L_</a>	 Alignment		5.3	29	<b>PDB header:</b> oxidoreductase, electron transport <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> structure of t.elongatus photosystem ii, rows of dimers crystal2 packing
19	<a href="#">c4m5bA_</a>	 Alignment		5.3	13	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> cobalamin biosynthesis protein cbim; <b>PDBTitle:</b> crystal structure of an truncated transition metal transporter
20	<a href="#">c4m5cA_</a>	 Alignment		5.3	13	<b>PDB header:</b> membrane protein <b>Chain:</b> A: <b>PDB Molecule:</b> cobalamin biosynthesis protein cbim; <b>PDBTitle:</b> crystal structure of an truncated transition metal transporter
21	<a href="#">c1s5lL_</a>	 Alignment	not modelled	5.2	29	<b>PDB header:</b> photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center I protein; <b>PDBTitle:</b> architecture of the photosynthetic oxygen evolving center
22	<a href="#">c4tnhL_</a>	 Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport,photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> rt xfel structure of photosystem ii in the dark state at 4.9 a2 resolution
23	<a href="#">c3kziL_</a>	 Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> crystal structure of monomeric form of cyanobacterial photosystem ii
24	<a href="#">c3prqL_</a>	 Alignment	not modelled	5.2	29	<b>PDB header:</b> photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> crystal structure of cyanobacterial photosystem ii in complex with2 terbutryn (part 1 of 2). this file contains first monomer of psii3 dimer
25	<a href="#">c3wu2L_</a>	 Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport, photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> crystal structure analysis of photosystem ii complex
26	<a href="#">c3wu2L_</a>	 Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport, photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> crystal structure analysis of photosystem ii complex
27	<a href="#">c4tnjL_</a>	 Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport,photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> rt xfel structure of photosystem ii 500 ms after the 2nd illumination2 (2f) at 4.5 a resolution
28	<a href="#">c1s5lL_</a>	 Alignment	not modelled	5.2	29	<b>PDB header:</b> photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center I protein; <b>PDBTitle:</b> architecture of the photosynthetic oxygen evolving center

29	<a href="#">c4tnkL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport,photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> rt xfel structure of photosystem ii 250 microsec after the third illumination at 5.2 a resolution
30	<a href="#">c4tnjL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport,photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> rt xfel structure of photosystem ii 500 ms after the 2nd illumination2 (2f) at 4.5 a resolution
31	<a href="#">c4tniL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport,photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> rt xfel structure of photosystem ii 500 ms after the third illumination at 4.6 a resolution
32	<a href="#">c4rvyL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> oxidoreductase <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> serial time resolved crystallography of photosystem ii using a2 femtosecond x-ray laser. the s state after two flashes (s3)
33	<a href="#">c4fbyL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> fs x-ray diffraction of photosystem ii
34	<a href="#">c3bz2L</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> crystal structure of cyanobacterial photosystem ii (part 2 of 2). this2 file contains second monomer of psii dimer
35	<a href="#">c2axtL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center I protein; <b>PDBTitle:</b> crystal structure of photosystem ii from thermosynechococcus elongatus
36	<a href="#">c4ixqL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> rt fs x-ray diffraction of photosystem ii, dark state
37	<a href="#">c3prrL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> crystal structure of cyanobacterial photosystem ii in complex with2 terbutryn (part 2 of 2). this file contains second monomer of psii3 dimer
38	<a href="#">c4tniL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport,photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> rt xfel structure of photosystem ii 500 ms after the third illumination at 4.6 a resolution
39	<a href="#">c4tnhL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport,photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> rt xfel structure of photosystem ii in the dark state at 4.9 a2 resolution
40	<a href="#">c3bz1L</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> crystal structure of cyanobacterial photosystem ii (part 1 of 2). this2 file contains first monomer of psii dimer
41	<a href="#">d2axt1</a>	Alignment	not modelled	5.2	29	<b>Fold:</b> Single transmembrane helix <b>Superfamily:</b> Photosystem II reaction center protein L, PsbL <b>Family:</b> PsbL-like
42	<a href="#">c4il6L</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> structure of sr-substituted photosystem ii
43	<a href="#">c3arcL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport, photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> crystal structure of oxygen-evolving photosystem ii at 1.9 angstrom2 resolution
44	<a href="#">c5e7cL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> macromolecular diffractive imaging using imperfect crystals - bragg2 data
45	<a href="#">c4ub8L</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport, photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> native structure of photosystem ii (dataset-2) by a femtosecond x-ray2 laser
46	<a href="#">c4ixqL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> rt fs x-ray diffraction of photosystem ii, dark state
47	<a href="#">c2axtL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center I protein; <b>PDBTitle:</b> crystal structure of photosystem ii from thermosynechococcus elongatus
48	<a href="#">c4ixrL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> rt fs x-ray diffraction of photosystem ii, first illuminated state
49	<a href="#">c4ub8L</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport, photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> native structure of photosystem ii (dataset-2) by a femtosecond x-ray2 laser
50	<a href="#">c4fbyd</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> photosynthesis <b>Chain:</b> D: <b>PDB Molecule:</b> photosystem ii d2 protein; <b>PDBTitle:</b> fs x-ray diffraction of photosystem ii
51	<a href="#">c4ixrL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> rt fs x-ray diffraction of photosystem ii, first illuminated state
52	<a href="#">c4tnkL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport,photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> rt xfel structure of photosystem ii 250 microsec after the third illumination at 5.2 a resolution
53	<a href="#">c4ub6L</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport, photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> native structure of photosystem ii (dataset-1) by a femtosecond x-ray2 laser
54	<a href="#">c4rvyL</a>	Alignment	not modelled	5.2	29	<b>PDB header:</b> oxidoreductase <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> serial time resolved crystallography of photosystem ii using a2 femtosecond x-ray laser. the s state after two flashes (s3)

55	<a href="#">c5e7cL_</a>	 Alignment	not modelled	5.2	29	<b>PDB header:</b> photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> macromolecular diffractive imaging using imperfect crystals - bragg2 data
56	<a href="#">c4ub6L_</a>	 Alignment	not modelled	5.2	29	<b>PDB header:</b> electron transport, photosynthesis <b>Chain:</b> L: <b>PDB Molecule:</b> photosystem ii reaction center protein I; <b>PDBTitle:</b> native structure of photosystem ii (dataset-1) by a femtosecond x-ray2 laser