

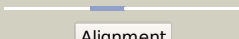

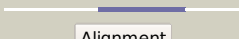
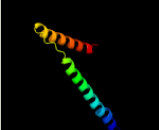

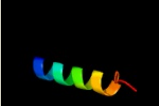





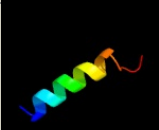

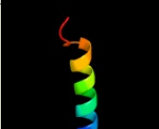

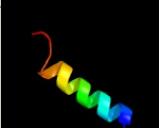




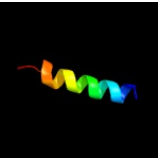

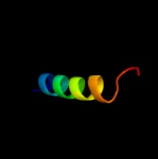
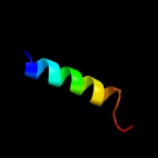
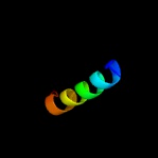



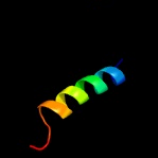


Phyre2

Email	mdejesus@rockefeller.edu
Description	RVBD0461 (-) _552029_552553
Date	Tue Jul 23 14:50:54 BST 2019
Unique Job ID	8329389ff6c0c1f0

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2lowA_	 Alignment		33.6	25	PDB header: membrane protein Chain: A: PDB Molecule: apelin receptor; PDBTitle: solution structure of ar55 in 50% hfip
2	c2mbhB_	 Alignment		23.3	67	PDB header: transcription Chain: B: PDB Molecule: krueppel-like factor 1; PDBTitle: nmr structure of eklf(22-40)/ubiquitin complex
3	c3orgB_	 Alignment		19.3	19	PDB header: transport protein Chain: B: PDB Molecule: cmclc; PDBTitle: crystal structure of a eukaryotic clc transporter
4	c5mx2T_	 Alignment		15.2	25	PDB header: oxidoreductase Chain: T: PDB Molecule: photosystem ii reaction center protein t; PDBTitle: photosystem ii depleted of the mn4cao5 cluster at 2.55 a resolution
5	c5b66T_	 Alignment		15.0	25	PDB header: electron transport, photosynthesis Chain: T: PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure analysis of photosystem ii complex
6	c5gtiT_	 Alignment		14.9	25	PDB header: photosynthesis Chain: T: PDB Molecule: photosystem ii reaction center protein t; PDBTitle: native xfel structure of photosystem ii (two flash dataset)
7	c5v2cT_	 Alignment		14.9	25	PDB header: electron transport, photosynthesis Chain: T: PDB Molecule: photosystem ii reaction center protein t; PDBTitle: re-refinement of crystal structure of photosystem ii complex
8	c5gtht_	 Alignment		14.9	25	PDB header: photosynthesis Chain: T: PDB Molecule: photosystem ii reaction center protein t; PDBTitle: native xfel structure of photosystem ii (dark dataset)
9	c3wu2T_	 Alignment		14.9	25	PDB header: electron transport, photosynthesis Chain: T: PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure analysis of photosystem ii complex
10	c5ws5T_	 Alignment		14.9	25	PDB header: photosynthesis Chain: T: PDB Molecule: photosystem ii reaction center protein t; PDBTitle: native xfel structure of photosystem ii (preflash dark dataset)
11	c5ws6T_	 Alignment		14.9	25	PDB header: photosynthesis Chain: T: PDB Molecule: photosystem ii reaction center protein t; PDBTitle: native xfel structure of photosystem ii (preflash two-flash dataset)

12	c5kaIT	Alignment		14.9	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: nh3-bound rt xfel structure of photosystem ii 500 ms after the 2nd2 illumination (2f) at 2.8 a resolution
13	c5ws5t	Alignment		14.9	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: native xfel structure of photosystem ii (preflash dark dataset)
14	c5zznT	Alignment		14.9	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure of photosystem ii from an sqdg-deficient mutant of2 thermosynechococcus elongatus
15	c5v2ct	Alignment		14.9	25	PDB header: electron transport, photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: re-refinement of crystal structure of photosystem ii complex
16	c5kait	Alignment		14.9	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: nh3-bound rt xfel structure of photosystem ii 500 ms after the 2nd2 illumination (2f) at 2.8 a resolution
17	c5zznT	Alignment		14.9	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure of photosystem ii from an sqdg-deficient mutant of2 thermosynechococcus elongatus
18	c5ws6t	Alignment		14.9	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: native xfel structure of photosystem ii (preflash two-flash dataset)
19	c5h2ft	Alignment		14.9	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure of the psbm-deletion mutant of photosystem ii
20	c5gthT	Alignment		14.9	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: native xfel structure of photosystem ii (dark dataset)
21	c5b66t	Alignment	not modelled	14.9	25	PDB header: electron transport, photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure analysis of photosystem ii complex
22	c5tist	Alignment	not modelled	14.9	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: room temperature xfel structure of the native, doubly-illuminated2 photosystem ii complex
23	c5kafT	Alignment	not modelled	14.9	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: rt xfel structure of photosystem ii in the dark state at 3.0 a2 resolution
24	c3wu2t	Alignment	not modelled	14.9	25	PDB header: electron transport, photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure analysis of photosystem ii complex
25	c5gtit	Alignment	not modelled	14.9	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: native xfel structure of photosystem ii (two flash dataset)
26	c4ub6t	Alignment	not modelled	14.9	25	PDB header: electron transport, photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: native structure of photosystem ii (dataset-1) by a femtosecond x-ray2 laser
27	c4ub8t	Alignment	not modelled	14.9	25	PDB header: electron transport, photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: native structure of photosystem ii (dataset-2) by a femtosecond x-ray2 laser
28	c4il6t	Alignment	not modelled	14.9	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: structure of sr-substituted photosystem ii
						PDB header: electron transport, photosynthesis

29	c4ub8T_	Alignment	not modelled	14.9	25	Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: native structure of photosystem ii (dataset-2) by a femtosecond x-ray2 laser
30	c5b5eT_	Alignment	not modelled	14.9	25	PDB header: electron transport, photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure analysis of photosystem ii complex
31	c5h2fT_	Alignment	not modelled	14.9	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure of the psbm-deletion mutant of photosystem ii
32	c5kaft_	Alignment	not modelled	14.9	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: rt xfel structure of photosystem ii in the dark state at 3.0 a2 resolution
33	c5tisT_	Alignment	not modelled	14.9	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: room temperature xfel structure of the native, doubly-illuminated2 photosystem ii complex
34	c4ub6T_	Alignment	not modelled	14.9	25	PDB header: electron transport, photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: native structure of photosystem ii (dataset-1) by a femtosecond x-ray2 laser
35	c4il6T_	Alignment	not modelled	14.8	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: structure of sr-substituted photosystem ii
36	c5b5et_	Alignment	not modelled	14.8	25	PDB header: electron transport, photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure analysis of photosystem ii complex
37	c5mx2t_	Alignment	not modelled	14.1	25	PDB header: oxidoreductase Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: photosystem ii depleted of the mn4cao5 cluster at 2.55 a resolution
38	c4pj0T_	Alignment	not modelled	14.1	25	PDB header: oxidoreductase, electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: structure of t.elongatus photosystem ii, rows of dimers crystal2 packing
39	c4pj0t_	Alignment	not modelled	14.1	25	PDB header: oxidoreductase, electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: structure of t.elongatus photosystem ii, rows of dimers crystal2 packing
40	c5e79T_	Alignment	not modelled	14.1	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: macromolecular diffractive imaging using imperfect crystals
41	c3arcT_	Alignment	not modelled	14.1	25	PDB header: electron transport, photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure of oxygen-evolving photosystem ii at 1.9 angstrom2 resolution
42	c5e79t_	Alignment	not modelled	14.1	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: macromolecular diffractive imaging using imperfect crystals
43	c5e7cT_	Alignment	not modelled	14.1	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: macromolecular diffractive imaging using imperfect crystals - bragg2 data
44	c3a0ht_	Alignment	not modelled	14.1	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure of i-substituted photosystem ii complex
45	c3a0bt_	Alignment	not modelled	14.1	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure of br-substituted photosystem ii complex
46	c3kziT_	Alignment	not modelled	14.1	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure of monomeric form of cyanobacterial photosystem ii
47	c4rvyt_	Alignment	not modelled	14.1	25	PDB header: oxidoreductase Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: serial time resolved crystallography of photosystem ii using a2 femtosecond x-ray laser. the s state after two flashes (s3)
48	c4rvyT_	Alignment	not modelled	14.1	25	PDB header: oxidoreductase Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: serial time resolved crystallography of photosystem ii using a2 femtosecond x-ray laser. the s state after two flashes (s3)
49	d2axtt1	Alignment	not modelled	14.1	25	Fold: Single transmembrane helix Superfamily: Photosystem II reaction center protein T, PsbT Family: PsbT-like
50	c2axtT_	Alignment	not modelled	14.1	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center t protein; PDBTitle: crystal structure of photosystem ii from thermosynechococcus elongatus
51	c3a0hT_	Alignment	not modelled	14.1	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure of i-substituted photosystem ii complex
52	c5e7ct_	Alignment	not modelled	14.1	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: macromolecular diffractive imaging using imperfect crystals - bragg2 data
53	c2axtt_	Alignment	not modelled	14.1	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center t protein; PDBTitle: crystal structure of photosystem ii from thermosynechococcus elongatus
54	c1s5lt_	Alignment	not modelled	14.1	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii psbt protein; PDBTitle: architecture of the photosynthetic oxygen evolving center
55	c1s5IT_	Alignment	not modelled	14.1	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii psbt protein;

						PDBTitle: architecture of the photosynthetic oxygen evolving center
56	c3prqT_	Alignment	not modelled	14.1	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure of cyanobacterial photosystem ii in complex with 2 terbutryn (part 1 of 2). this file contains first monomer of psii3 dimer
57	c4tnkt_	Alignment	not modelled	14.1	25	PDB header: electron transport,photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: rt xfel structure of photosystem ii 250 microsec after the third illumination at 5.2 a resolution
58	c4tniT_	Alignment	not modelled	14.1	25	PDB header: electron transport,photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: rt xfel structure of photosystem ii 500 ms after the third illumination at 4.6 a resolution
59	c4ixrt_	Alignment	not modelled	14.1	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: rt fs x-ray diffraction of photosystem ii, first illuminated state
60	c3bz1T_	Alignment	not modelled	14.1	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure of cyanobacterial photosystem ii (part 1 of 2). this2 file contains first monomer of psii dimer
61	c4tnit_	Alignment	not modelled	14.1	25	PDB header: electron transport,photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: rt xfel structure of photosystem ii 500 ms after the third illumination at 4.6 a resolution
62	c4tnjt_	Alignment	not modelled	14.1	25	PDB header: electron transport,photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: rt xfel structure of photosystem ii 500 ms after the 2nd illumination2 (2f) at 4.5 a resolution
63	c4ixqt_	Alignment	not modelled	14.1	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: rt fs x-ray diffraction of photosystem ii, dark state
64	c4tnht_	Alignment	not modelled	14.1	25	PDB header: electron transport,photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: rt xfel structure of photosystem ii in the dark state at 4.9 a2 resolution
65	c3prT_	Alignment	not modelled	14.1	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure of cyanobacterial photosystem ii in complex with 2 terbutryn (part 2 of 2). this file contains second monomer of psii3 dimer
66	c4tnkT_	Alignment	not modelled	14.1	25	PDB header: electron transport,photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: rt xfel structure of photosystem ii 250 microsec after the third illumination at 5.2 a resolution
67	c4fbyg_	Alignment	not modelled	14.1	25	PDB header: photosynthesis Chain: G; PDB Molecule: photosystem q(b) protein 1; PDBTitle: fs x-ray diffraction of photosystem ii
68	c4ixrT_	Alignment	not modelled	14.1	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: rt fs x-ray diffraction of photosystem ii, first illuminated state
69	c4fbyT_	Alignment	not modelled	14.1	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: fs x-ray diffraction of photosystem ii
70	c4tnjT_	Alignment	not modelled	14.1	25	PDB header: electron transport,photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: rt xfel structure of photosystem ii 500 ms after the 2nd illumination2 (2f) at 4.5 a resolution
71	c4tnhT_	Alignment	not modelled	14.1	25	PDB header: electron transport,photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: rt xfel structure of photosystem ii in the dark state at 4.9 a2 resolution
72	c3bz2T_	Alignment	not modelled	14.1	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure of cyanobacterial photosystem ii (part 2 of 2). this2 file contains second monomer of psii dimer
73	c4ixqT_	Alignment	not modelled	14.1	25	PDB header: photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: rt fs x-ray diffraction of photosystem ii, dark state
74	c5lxIA_	Alignment	not modelled	13.9	37	PDB header: viral protein Chain: A; PDB Molecule: decoration protein; PDBTitle: nmr structure of the n-terminal domain of the bacteriophage t52 decoration protein pb10
75	c3uoeb_	Alignment	not modelled	12.7	17	PDB header: oxidoreductase Chain: B; PDB Molecule: dehydrogenase; PDBTitle: the crystal structure of dehydrogenase from sinorhizobium melloti
76	c2vpzG_	Alignment	not modelled	11.4	23	PDB header: oxidoreductase Chain: G; PDB Molecule: hypothetical membrane spanning protein; PDBTitle: polysulfide reductase native structure
77	c3p3dA_	Alignment	not modelled	11.2	75	PDB header: nuclear protein Chain: A; PDB Molecule: nucleoporin 53; PDBTitle: crystal structure of the nup53 rrm domain from pichia guilliermondii
78	d3bexa2	Alignment	not modelled	11.0	0	Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: CoaX-like
79	c3a0bT_	Alignment	not modelled	10.7	25	PDB header: electron transport Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure of br-substituted photosystem ii complex
80	c3arct_	Alignment	not modelled	10.7	25	PDB header: electron transport, photosynthesis Chain: T; PDB Molecule: photosystem ii reaction center protein t; PDBTitle: crystal structure of oxygen-evolving photosystem ii at 1.9 angstrom2 resolution PDB header: oxidoreductase

81	c1vbiA_	Alignment	not modelled	10.5	24	Chain: A: PDB Molecule: type 2 malate/lactate dehydrogenase; PDBTitle: crystal structure of type 2 malate/lactate dehydrogenase from thermus2 thermophilus hb8
82	c1v9nA_	Alignment	not modelled	10.1	14	PDB header: oxidoreductase Chain: A: PDB Molecule: malate dehydrogenase; PDBTitle: structure of malate dehydrogenase from pyrococcus horikoshii ot3
83	c5w7IA_	Alignment	not modelled	9.5	14	PDB header: membrane protein Chain: A: PDB Molecule: n,n'-diacetylbacillosaminyl-1-phosphate transferase; PDBTitle: structure of campylobacter concisus pglc i57m/q175m variant
84	c2m4mA_	Alignment	not modelled	9.1	38	PDB header: unknown function Chain: A: PDB Molecule: hypothetical protein; PDBTitle: solution structure of the rrm domain of the hypothetical protein2 cagl0m09691g from candida glabrata
85	c3i0pA_	Alignment	not modelled	9.0	10	PDB header: oxidoreductase Chain: A: PDB Molecule: malate dehydrogenase; PDBTitle: crystal structure of malate dehydrogenase from entamoeba histolytica
86	c3zs7A_	Alignment	not modelled	8.4	16	PDB header: transferase Chain: A: PDB Molecule: pyridoxal kinase; PDBTitle: crystal structure of pyridoxal kinase from trypanosoma brucei
87	c2vdaB_	Alignment	not modelled	7.4	54	PDB header: protein transport Chain: B: PDB Molecule: maltoporin; PDBTitle: solution structure of the seca-signal peptide complex
88	d1dd3a1	Alignment	not modelled	7.0	19	Fold: Ribosomal protein L7/12, oligomerisation (N-terminal) domain Superfamily: Ribosomal protein L7/12, oligomerisation (N-terminal) domain Family: Ribosomal protein L7/12, oligomerisation (N-terminal) domain
89	c1spfA_	Alignment	not modelled	6.6	42	PDB header: lipoprotein(surface film) Chain: A: PDB Molecule: pulmonary surfactant-associated polypeptide c; PDBTitle: the nmr structure of the pulmonary surfactant-associated2 polypeptide sp-c in an apolar solvent contains a valyl-3 rich alpha-helix
90	c5uazB_	Alignment	not modelled	6.5	38	PDB header: protein transport Chain: B: PDB Molecule: nucleoporin nup53; PDBTitle: crystal structure of the yeast nucleoporin
91	c1ifIA_	Alignment	not modelled	6.2	48	PDB header: virus Chain: A: PDB Molecule: inovirus; PDBTitle: molecular models and structural comparisons of native and2 mutant class i filamentous bacteriophages ff (fd, f1, m13),3 if1 and ike
92	c2w0cT_	Alignment	not modelled	6.0	43	PDB header: virus Chain: T: PDB Molecule: protein p6; PDBTitle: x-ray structure of the entire lipid-containing bacteriophage pm2
93	c5no7B_	Alignment	not modelled	5.2	60	PDB header: oxidoreductase Chain: B: PDB Molecule: lytic polysaccharide monooxygenase; PDBTitle: crystal structure of a xylan-active lytic polysaccharide monooxygenase2 from pycnoporus coccineus.