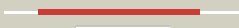
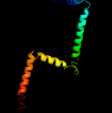

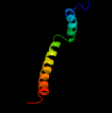

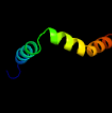









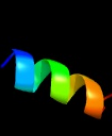



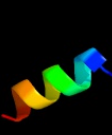




Phyre2

Email mdejesus@rockefeller.edu
 Description RVBD1224_(tatB)_1367469_1367864
 Date Wed Jul 31 22:05:31 BST 2019
 Unique Job ID e936dbf7bfbf3b9

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2mi2A_	 Alignment		99.9	23	PDB header: transport protein Chain: A; PDB Molecule: sec-independent protein translocase protein tatb; PDBTitle: solution structure of the e. coli tatb protein in dpc micelles
2	c2i16A_	 Alignment		99.8	25	PDB header: protein transport Chain: A; PDB Molecule: sec-independent protein translocase protein tatad; PDBTitle: solution structure of bacillus subtilis tatad protein in dpc micelles
3	c2lzsE_	 Alignment		99.7	13	PDB header: protein transport Chain: E; PDB Molecule: sec-independent protein translocase protein tata; PDBTitle: tata oligomer
4	c6o7ua_	 Alignment		50.2	18	PDB header: membrane protein Chain: A; PDB Molecule: PDBTitle: saccharomyces cerevisiae v-atpase stv1-vo
5	c5imV_	 Alignment		47.5	17	PDB header: membrane protein Chain: V; PDB Molecule: v-type proton atpase subunit a, vacuolar isoform; PDBTitle: yeast v-atpase average of densities, a subunit segment
6	d1ohua_	 Alignment		39.8	18	Fold: Toxins' membrane translocation domains Superfamily: Bcl-2 inhibitors of programmed cell death Family: Bcl-2 inhibitors of programmed cell death
7	c6o7xa_	 Alignment		35.0	32	PDB header: membrane protein Chain: A; PDB Molecule: vacuolar atp synthase catalytic subunit a; PDBTitle: saccharomyces cerevisiae v-atpase stv1-v1vo state 3
8	c3a0hj_	 Alignment		28.9	54	PDB header: electron transport Chain: J; PDB Molecule: photosystem ii reaction center protein j; PDBTitle: crystal structure of i-substituted photosystem ii complex
9	d2axtj1	 Alignment		24.9	54	Fold: Single transmembrane helix Superfamily: Photosystem II reaction center protein J, Psbj Family: Psbj-like
10	c3a0hi_	 Alignment		23.2	38	PDB header: electron transport Chain: I; PDB Molecule: photosystem ii reaction center protein i; PDBTitle: crystal structure of i-substituted photosystem ii complex
11	d2axti1	 Alignment		23.2	38	Fold: Single transmembrane helix Superfamily: Photosystem II reaction center protein I, Psbl Family: Psbl-like

12	c5xnmj_	Alignment		23.1	31	PDB header: membrane protein Chain: J; PDB Molecule: photosystem ii reaction center protein j; PDBTitle: structure of unstacked c2s2m2-type psii-lhcii supercomplex from pisum2 sativum
13	c3msqC_	Alignment		22.1	11	PDB header: biosynthetic protein Chain: C; PDB Molecule: putative ubiquinone biosynthesis protein; PDBTitle: crystal structure of a putative ubiquinone biosynthesis protein2 (npun02000094) from nostoc punctiforme pcc 73102 at 2.85 a resolution
14	c3jcul_	Alignment		21.4	31	PDB header: membrane protein Chain: I; PDB Molecule: protein photosystem ii reaction center protein i; PDBTitle: cryo-em structure of spinach psii-lhcii supercomplex at 3.2 angstrom2 resolution
15	c3jcuJ_	Alignment		20.9	38	PDB header: membrane protein Chain: J; PDB Molecule: photosystem ii reaction center protein j; PDBTitle: cryo-em structure of spinach psii-lhcii supercomplex at 3.2 angstrom2 resolution
16	c4d18G_	Alignment		20.1	13	PDB header: signaling protein Chain: G; PDB Molecule: cop9 signalosome complex subunit 7a; PDBTitle: crystal structure of the cop9 signalosome
17	c2voyH_	Alignment		15.0	28	PDB header: hydrolase Chain: H; PDB Molecule: sarcoplasmic/endoplasmic reticulum calcium atpase 1; PDBTitle: cryoem model of copa, the copper transporting atpase from2 archaeoglobus fulgidus
18	c4pv1H_	Alignment		13.6	46	PDB header: electron transport/inhibitor Chain: H; PDB Molecule: cytochrome b6-f complex subunit 8; PDBTitle: cytochrome b6f structure from m. laminosus with the quinone analog2 inhibitor stigmatellin
19	c4i7zH_	Alignment		13.6	46	PDB header: photosynthesis Chain: H; PDB Molecule: cytochrome b6-f complex subunit 8; PDBTitle: crystal structure of cytochrome b6f in dogp, with disordered rieske2 iron-sulfur protein soluble domain
20	c3kb4D_	Alignment		13.4	7	PDB header: structural genomics, unknown function Chain: D; PDB Molecule: alr8543 protein; PDBTitle: crystal structure of the alr8543 protein in complex with2 geranylgeranyl monophosphate and magnesium ion from nostoc sp. pcc3 7120, northeast structural genomics consortium target nsr141
21	c2e76H_	Alignment	not modelled	13.3	46	PDB header: photosynthesis Chain: H; PDB Molecule: cytochrome b6-f complex subunit 8; PDBTitle: crystal structure of the cytochrome b6f complex with tridecyl-2 stigmatellin (tds) from m.laminosus
22	c2e75H_	Alignment	not modelled	13.3	46	PDB header: photosynthesis Chain: H; PDB Molecule: cytochrome b6-f complex subunit 8; PDBTitle: crystal structure of the cytochrome b6f complex with 2-nonyl-4-2 hydroxyquinoline n-oxide (nqno) from m.laminosus
23	c2e74H_	Alignment	not modelled	13.3	46	PDB header: photosynthesis Chain: H; PDB Molecule: cytochrome b6-f complex subunit 8; PDBTitle: crystal structure of the cytochrome b6f complex from m.laminosus
24	c4h13H_	Alignment	not modelled	13.3	46	PDB header: photosynthesis Chain: H; PDB Molecule: cytochrome b6-f complex subunit 8; PDBTitle: crystal structure of the cytochrome b6f complex from mastigocladus2 laminosus with tds
25	c4h0IH_	Alignment	not modelled	13.3	46	PDB header: photosynthesis Chain: H; PDB Molecule: cytochrome b6-f complex subunit 8; PDBTitle: cytochrome b6f complex crystal structure from mastigocladus laminosus2 with n-side inhibitor nqno
26	c5uulB_	Alignment	not modelled	12.5	19	PDB header: apoptosis Chain: B; PDB Molecule: bcl-2-binding component 3; PDBTitle: human bfl-1 in complex with puma bh3
27	c4pj0L_	Alignment	not modelled	11.1	14	PDB header: oxidoreductase, electron transport Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: structure of t.elongatus photosystem ii, rows of dimers crystal2 packing
28	c4pj0L_	Alignment	not modelled	11.1	14	PDB header: oxidoreductase, electron transport Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: structure of t.elongatus photosystem ii, rows of dimers crystal2 packing
						PDB header: oxidoreductase

29	c4rvyl	Alignment	not modelled	10.7	14	Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: serial time resolved crystallography of photosystem ii using a2 femtosecond x-ray laser. the s state after two flashes (s3)
30	c4tnil	Alignment	not modelled	10.7	14	PDB header: electron transport,photosynthesis Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: rt xfel structure of photosystem ii 500 ms after the third2 illumination at 4.6 a resolution
31	c4rvyl	Alignment	not modelled	10.7	14	PDB header: oxidoreductase Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: serial time resolved crystallography of photosystem ii using a2 femtosecond x-ray laser. the s state after two flashes (s3)
32	c3a0bl	Alignment	not modelled	10.7	14	PDB header: electron transport Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of br-substituted photosystem ii complex
33	c3a0hl	Alignment	not modelled	10.7	14	PDB header: electron transport Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of i-substituted photosystem ii complex
34	c4tnkl	Alignment	not modelled	10.7	14	PDB header: electron transport,photosynthesis Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: rt xfel structure of photosystem ii 250 microsec after the third2 illumination at 5.2 a resolution
35	c5e7cl	Alignment	not modelled	10.7	14	PDB header: photosynthesis Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: macromolecular diffractive imaging using imperfect crystals - bragg2 data
36	c3prrl	Alignment	not modelled	10.7	14	PDB header: photosynthesis Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of cyanobacterial photosystem ii in complex with2 terbutryn (part 2 of 2). this file contains second monomer of psii3 dimer
37	c4tnhl	Alignment	not modelled	10.7	14	PDB header: electron transport,photosynthesis Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: rt xfel structure of photosystem ii in the dark state at 4.9 a2 resolution
38	c4fbyl	Alignment	not modelled	10.7	14	PDB header: photosynthesis Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: fs x-ray diffraction of photosystem ii
39	c2axtl	Alignment	not modelled	10.7	14	PDB header: electron transport Chain: L; PDB Molecule: photosystem ii reaction center I protein; PDBTitle: crystal structure of photosystem ii from thermosynechococcus elongatus
40	c5e7cl	Alignment	not modelled	10.7	14	PDB header: photosynthesis Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: macromolecular diffractive imaging using imperfect crystals - bragg2 data
41	c3a0bl	Alignment	not modelled	10.7	14	PDB header: electron transport Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of br-substituted photosystem ii complex
42	c4tnjl	Alignment	not modelled	10.7	14	PDB header: electron transport,photosynthesis Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: rt xfel structure of photosystem ii 500 ms after the 2nd illumination2 (2f) at 4.5 a resolution
43	c4tnhl	Alignment	not modelled	10.7	14	PDB header: electron transport,photosynthesis Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: rt xfel structure of photosystem ii in the dark state at 4.9 a2 resolution
44	c4fbyd	Alignment	not modelled	10.7	14	PDB header: photosynthesis Chain: D; PDB Molecule: photosystem ii d2 protein; PDBTitle: fs x-ray diffraction of photosystem ii
45	c3arcl	Alignment	not modelled	10.7	14	PDB header: electron transport, photosynthesis Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of oxygen-evolving photosystem ii at 1.9 angstrom2 resolution
46	c2axtl	Alignment	not modelled	10.7	14	PDB header: electron transport Chain: L; PDB Molecule: photosystem ii reaction center I protein; PDBTitle: crystal structure of photosystem ii from thermosynechococcus elongatus
47	c4tnil	Alignment	not modelled	10.7	14	PDB header: electron transport,photosynthesis Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: rt xfel structure of photosystem ii 500 ms after the third2 illumination at 4.6 a resolution
48	d2axtl1	Alignment	not modelled	10.7	14	Fold: Single transmembrane helix Superfamily: Photosystem II reaction center protein L, PsbL Family: PsbL-like
49	c3prql	Alignment	not modelled	10.7	14	PDB header: photosynthesis Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of cyanobacterial photosystem ii in complex with2 terbutryn (part 1 of 2). this file contains first monomer of psii3 dimer
50	c4tnkl	Alignment	not modelled	10.7	14	PDB header: electron transport,photosynthesis Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: rt xfel structure of photosystem ii 250 microsec after the third2 illumination at 5.2 a resolution
51	c3a0hl	Alignment	not modelled	10.7	14	PDB header: electron transport Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of i-substituted photosystem ii complex
52	c4tnjl	Alignment	not modelled	10.7	14	PDB header: electron transport,photosynthesis Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: rt xfel structure of photosystem ii 500 ms after the 2nd illumination2 (2f) at 4.5 a resolution
53	c4ixrl	Alignment	not modelled	10.7	14	PDB header: photosynthesis Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: rt fs x-ray diffraction of photosystem ii, first illuminated state
54	c3wu2L	Alignment	not modelled	10.7	14	PDB header: electron transport, photosynthesis Chain: L; PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure analysis of photosystem ii complex

55	c4ixqL_	Alignment	not modelled	10.7	14	PDB header: photosynthesis Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: rt fs x-ray diffraction of photosystem ii, dark state
56	c4il6L_	Alignment	not modelled	10.7	14	PDB header: electron transport Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: structure of sr-substituted photosystem ii
57	c4il6L_	Alignment	not modelled	10.7	14	PDB header: electron transport Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: structure of sr-substituted photosystem ii
58	c3wu2L_	Alignment	not modelled	10.7	14	PDB header: electron transport, photosynthesis Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure analysis of photosystem ii complex
59	c3bz2L_	Alignment	not modelled	10.7	14	PDB header: electron transport Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of cyanobacterial photosystem ii (part 2 of 2). this2 file contains second monomer of psii dimer
60	c4ixrl_	Alignment	not modelled	10.7	14	PDB header: photosynthesis Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: rt fs x-ray diffraction of photosystem ii, first illuminated state
61	c4ixqL_	Alignment	not modelled	10.7	14	PDB header: photosynthesis Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: rt fs x-ray diffraction of photosystem ii, dark state
62	c3kziL_	Alignment	not modelled	10.7	14	PDB header: electron transport Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of monomeric form of cyanobacterial photosystem ii
63	c3bz1L_	Alignment	not modelled	10.7	14	PDB header: electron transport Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of cyanobacterial photosystem ii (part 1 of 2). this2 file contains first monomer of psii dimer
64	c1s5ll_	Alignment	not modelled	10.7	14	PDB header: photosynthesis Chain: L: PDB Molecule: photosystem ii reaction center I protein; PDBTitle: architecture of the photosynthetic oxygen evolving center
65	c4ub6L_	Alignment	not modelled	10.7	14	PDB header: electron transport, photosynthesis Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: native structure of photosystem ii (dataset-1) by a femtosecond x-ray2 laser
66	c4ub8L_	Alignment	not modelled	10.7	14	PDB header: electron transport, photosynthesis Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: native structure of photosystem ii (dataset-2) by a femtosecond x-ray2 laser
67	c1s5ll_	Alignment	not modelled	10.7	14	PDB header: photosynthesis Chain: L: PDB Molecule: photosystem ii reaction center I protein; PDBTitle: architecture of the photosynthetic oxygen evolving center
68	c4ub8L_	Alignment	not modelled	10.7	14	PDB header: electron transport, photosynthesis Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: native structure of photosystem ii (dataset-2) by a femtosecond x-ray2 laser
69	c4ub6L_	Alignment	not modelled	10.7	14	PDB header: electron transport, photosynthesis Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: native structure of photosystem ii (dataset-1) by a femtosecond x-ray2 laser
70	c2bzwB_	Alignment	not modelled	9.5	16	PDB header: transcription Chain: B: PDB Molecule: bcl2-antagonist of cell death; PDBTitle: the crystal structure of bcl-xl in complex with full-length bad
71	c3arcl_	Alignment	not modelled	9.2	14	PDB header: electron transport, photosynthesis Chain: L: PDB Molecule: photosystem ii reaction center protein I; PDBTitle: crystal structure of oxygen-evolving photosystem ii at 1.9 angstrom2 resolution
72	c1kv4A_	Alignment	not modelled	8.6	17	PDB header: antibiotic Chain: A: PDB Molecule: moricin; PDBTitle: solution structure of antibacterial peptide (moricin)
73	c2o60B_	Alignment	not modelled	8.4	26	PDB header: metal binding protein Chain: B: PDB Molecule: peptide corresponding to calmodulin binding domain of PDBTitle: calmodulin bound to peptide from neuronal nitric oxide synthase
74	c4nf9A_	Alignment	not modelled	7.8	11	PDB header: cell cycle Chain: A: PDB Molecule: protein casc5; PDBTitle: structure of the knl1/nsl1 complex
75	c2jpxA_	Alignment	not modelled	7.7	50	PDB header: viral protein Chain: A: PDB Molecule: vpu protein; PDBTitle: a18h vpu tm structure in lipid bilayers
76	c6dkmB_	Alignment	not modelled	7.5	12	PDB header: de novo protein Chain: B: PDB Molecule: dhd131_b; PDBTitle: dhd131
77	c2jr8A_	Alignment	not modelled	7.5	17	PDB header: antimicrobial protein Chain: A: PDB Molecule: antimicrobial peptide moricin; PDBTitle: solution structure of manduca sexta moricin
78	c2zjsE_	Alignment	not modelled	7.5	13	PDB header: protein transport/immune system Chain: E: PDB Molecule: preprotein translocase sece subunit; PDBTitle: crystal structure of sece translocon from thermus thermophilus with a2 fab fragment
79	c5ireD_	Alignment	not modelled	7.4	25	PDB header: virus Chain: D: PDB Molecule: m protein; PDBTitle: the cryo-em structure of zika virus
80	c2rocB_	Alignment	not modelled	7.3	17	PDB header: apoptosis Chain: B: PDB Molecule: bcl-2-binding component 3; PDBTitle: solution structure of mcl-1 complexed with puma
81	c3ci9B_	Alignment	not modelled	6.7	12	PDB header: transcription Chain: B: PDB Molecule: heat shock factor-binding protein 1;

						PDBTitle: crystal structure of the human hsbp1
82	c5t42A_	Alignment	not modelled	6.7	18	PDB header: viral protein Chain: A; PDB Molecule: envelope glycoprotein; PDBTitle: structure of the ebola virus envelope protein mper/tm domain and its2 interaction with the fusion loop explains their fusion activity
83	c6btmA_	Alignment	not modelled	6.7	31	PDB header: membrane protein Chain: A; PDB Molecule: alternative complex iii subunit a; PDBTitle: structure of alternative complex iii from flavobacterium johnsoniae2 (wild type)
84	c5xauC_	Alignment	not modelled	6.6	9	PDB header: cell adhesion Chain: C; PDB Molecule: laminin subunit gamma-1; PDBTitle: crystal structure of integrin binding fragment of laminin-511
85	c5wdaL_	Alignment	not modelled	6.6	36	PDB header: protein transport Chain: L; PDB Molecule: general secretion pathway protein g; PDBTitle: structure of the pulg pseudopilus
86	d2cqqa1	Alignment	not modelled	6.5	16	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Myb/SANT domain
87	c5j10A_	Alignment	not modelled	6.4	11	PDB header: de novo protein Chain: A; PDB Molecule: peptide design 214hc2_24; PDBTitle: de novo design of protein homo-oligomers with modular hydrogen bond2 network-mediated specificity
88	c5wsnD_	Alignment	not modelled	6.3	25	PDB header: virus Chain: D; PDB Molecule: m protein; PDBTitle: structure of japanese encephalitis virus
89	c1p58E_	Alignment	not modelled	5.9	33	PDB header: virus Chain: E; PDB Molecule: envelope protein m; PDBTitle: complex organization of dengue virus membrane proteins as revealed by2 9.5 angstrom cryo-em reconstruction
90	c1p58F_	Alignment	not modelled	5.9	33	PDB header: virus Chain: F; PDB Molecule: envelope protein m; PDBTitle: complex organization of dengue virus membrane proteins as revealed by2 9.5 angstrom cryo-em reconstruction
91	c6cfzC_	Alignment	not modelled	5.8	26	PDB header: nuclear protein Chain: C; PDB Molecule: dad2; PDBTitle: structure of the dash/dam1 complex shows its role at the yeast2 kinetochore-microtubule interface
92	c3mwgA_	Alignment	not modelled	5.8	9	PDB header: transport protein Chain: A; PDB Molecule: iron-regulated abc transporter siderophore-binding protein PDBTitle: crystal structure of staphylococcus aureus sira
93	c4hnjC_	Alignment	not modelled	5.7	22	PDB header: apoptosis/protein binding Chain: C; PDB Molecule: bcl-2-binding component 3; PDBTitle: crystallographic structure of bcl-xl domain-swapped dimer in complex2 with puma bh3 peptide at 2.9a resolution
94	c3t0yA_	Alignment	not modelled	5.7	8	PDB header: transcription regulator/protein binding Chain: A; PDB Molecule: response regulator; PDBTitle: structure of the phyr anti-anti-sigma domain bound to the anti-sigma2 factor, nepr
95	c6fkip_	Alignment	not modelled	5.7	4	PDB header: membrane protein Chain: P; PDB Molecule: atp synthase subunit c, chloroplastic; PDBTitle: chloroplast f1fo conformation 3
96	c6fo1G_	Alignment	not modelled	5.4	21	PDB header: chaperone Chain: G; PDB Molecule: rna polymerase ii-associated protein 3; PDBTitle: human r2tp subcomplex containing 1 ruvbl1-ruvbl2 hexamer bound to 12 rbd domain from rpap3.
97	c3jcul_	Alignment	not modelled	5.4	14	PDB header: membrane protein Chain: L; PDB Molecule: protein photosystem ii reaction center protein l; PDBTitle: cryo-em structure of spinach psii-lhcii supercomplex at 3.2 angstrom2 resolution
98	c3nzlA_	Alignment	not modelled	5.2	0	PDB header: transcription Chain: A; PDB Molecule: dna-binding protein satb1; PDBTitle: crystal structure of the n-terminal domain of dna-binding protein2 satb1 from homo sapiens, northeast structural genomics consortium3 target hr4435b
99	c3zbhC_	Alignment	not modelled	5.2	16	PDB header: unknown function Chain: C; PDB Molecule: esxa; PDBTitle: geobacillus thermodenitrificans esxa crystal form i