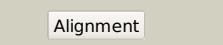
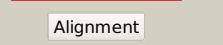
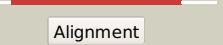
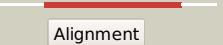
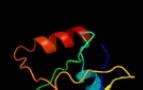
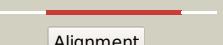
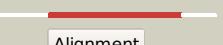
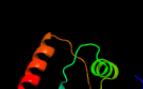


Phyre²

Email	mdejesus@rockefeller.edu
Description	RVBD1598c_(-)_1799080_1799490
Date	Fri Aug 2 13:30:19 BST 2019
Unique Job ID	ea11bab3f6653873

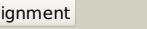
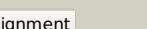
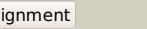
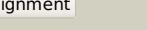
Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3r5zB_			99.9	20	PDB header: unknown function Chain: B; PDB Molecule: putative uncharacterized protein; PDBTitle: structure of a deazaflavin-dependent reductase from nocardia2 farcinica, with co-factor f420
2	c3r5yC_			99.9	20	PDB header: unknown function Chain: C; PDB Molecule: putative uncharacterized protein; PDBTitle: structure of a deazaflavin-dependent nitroreductase from nocardia2 farcinica, with co-factor f420
3	c4y9iA_			99.9	19	PDB header: oxidoreductase Chain: A; PDB Molecule: mycobacterium tuberculosis paralogous family 11; PDBTitle: structure of f420-h2 dependent reductase (fdr-a) msmeg_2027
4	c3h96B_			99.9	19	PDB header: flavoprotein Chain: B; PDB Molecule: f420-h2 dependent reductase a; PDBTitle: msmeg_3358 f420 reductase
5	c3r5wO_			99.9	21	PDB header: oxidoreductase Chain: O; PDB Molecule: deazaflavin-dependent nitroreductase; PDBTitle: structure of ddn, the deazaflavin-dependent nitroreductase from mycobacterium tuberculosis involved in bioreductive activation of pa-3 824, with co-factor f420
6	c2iabB_			97.7	16	PDB header: unknown function Chain: B; PDB Molecule: hypothetical protein; PDBTitle: crystal structure of a protein with fmn-binding split barrel fold2 (np_828636.1) from streptomyces avermitilis at 2.00 a resolution
7	c3f7eB_			97.5	13	PDB header: unknown function Chain: B; PDB Molecule: pyridoxamine 5'-phosphate oxidase-related, fmn- PDBTitle: msmeg_3380 f420 reductase
8	d1rfea_			97.4	12	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
9	d1w9aa_			97.4	13	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
10	d2asfa1			96.6	15	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
11	d2htia1			96.4	9	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like

12	c2htiA_			96.4	9	PDB header: fmn-binding protein Chain: A: PDB Molecule: bh0577 protein; PDBTitle: crystal structure of a flavin-nucleotide-binding protein (bh_0577)2 from bacillus halodurans at 2.50 a resolution
13	c2q9kA_			96.3	13	PDB header: oxidoreductase Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a putative oxidoreductase (exig_1997) from2 exiguobacterium sibiricum 255-15 at 1.59 a resolution
14	d2i02a1			96.1	6	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
15	c2htdB_			96.1	11	PDB header: oxidoreductase Chain: B: PDB Molecule: predicted flavin-nucleotide-binding protein from cog3576 PDBTitle: crystal structure of a putative pyridoxamine 5'-phosphate oxidase2 (ldb0262) from lactobacillus delbrueckii subsp. at 1.60 a resolution
16	d2hq7a1			96.0	11	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
17	c4zkyB_			95.9	7	PDB header: oxidoreductase Chain: B: PDB Molecule: pyridoxamine 5-phosphate oxidase; PDBTitle: structure of f420 binding protein, msmeg_6526, from mycobacterium2 smegmatis
18	c5escD_			95.8	15	PDB header: oxidoreductase Chain: D: PDB Molecule: hupz; PDBTitle: crystal structure of group a streptococcus hupz
19	d2hq9a1			95.8	14	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
20	c3db0B_			95.7	7	PDB header: oxidoreductase Chain: B: PDB Molecule: lin2891 protein; PDBTitle: crystal structure of putative pyridoxamine 5'-phosphate oxidase2 (np_472219.1) from listeria innocua at 2.00 a resolution
21	c3tgvD_		not modelled	95.6	10	PDB header: heme binding protein Chain: D: PDB Molecule: heme-binding protein hutz; PDBTitle: crystal structure of hutz,the heme storage protein from vibrio2 cholerae
22	d1vl7a_		not modelled	95.5	19	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
23	c2hhzA_		not modelled	95.3	6	PDB header: oxidoreductase Chain: A: PDB Molecule: pyridoxamine 5'-phosphate oxidase-related; PDBTitle: crystal structure of a pyridoxamine 5'-phosphate oxidase-related2 protein (ssuidraft_2804) from streptococcus suis 89/1591 at 2.00 a3 resolution
24	d2fura1		not modelled	95.3	6	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
25	c6eciQ_		not modelled	95.1	6	PDB header: fad-binding protein Chain: Q: PDB Molecule: pyridoxamine 5'-phosphate oxidase-related, fmn-binding PDBTitle: structure of the fad binding protein msmeg_5243 from mycobacterium2 smegmatis
26	d1t9ma_		not modelled	94.8	16	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
27	c3dnhb_		not modelled	94.7	21	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein atu2129; PDBTitle: the crystal structure of the protein atu2129 (unknown function) from2 agrobacterium tumefaciens str. c58 PDB header: unknown function Chain: A: PDB Molecule: probable fad-binding, putative

28	c3u0iA	Alignment	not modelled	94.5	10	uncharacterized protein; PDB header: oxidoreductase Chain: A: PDB Molecule: pyridoxamine 5'-phosphate oxidase; PDBTitle: crystal structure of a putative pyridoxine 5'-phosphate oxidase2 (rv2607) from mycobacterium tuberculosis
29	c2a2jA	Alignment	not modelled	94.5	13	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
30	d2a2ja1	Alignment	not modelled	94.4	14	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
31	d2fg9a1	Alignment	not modelled	94.3	11	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
32	d2arza1	Alignment	not modelled	94.0	15	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
33	d2fhqa1	Alignment	not modelled	93.9	9	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
34	c2re7A	Alignment	not modelled	93.7	11	PDB header: oxidoreductase Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a pyridoxamine 5'-phosphate oxidase related2 protein (psyc_0186) from psychrobacter arcticus 273-4 at 2.50 a3 resolution
35	c3ec6A	Alignment	not modelled	93.5	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: general stress protein 26; PDBTitle: crystal structure of the general stress protein 26 from bacillus2 anthracis str. sterne
36	c3fkhB	Alignment	not modelled	93.2	14	PDB header: oxidoreductase Chain: B: PDB Molecule: putative pyridoxamine 5'-phosphate oxidase; PDBTitle: crystal structure of putative pyridoxamine 5'-phosphate oxidase2 (np_601736.1) from corynebacterium glutamicum atcc 13032 kitasato at3 2.51 a resolution
37	d1ty9a	Alignment	not modelled	92.9	12	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
38	c2ig6B	Alignment	not modelled	92.6	6	PDB header: oxidoreductase Chain: B: PDB Molecule: nimc/nima family protein; PDBTitle: crystal structure of a nimc/nima family protein (ca_c2569) from2 clostridium acetobutylicum at 1.80 a resolution
39	c4ybnB	Alignment	not modelled	92.0	17	PDB header: oxidoreductase Chain: B: PDB Molecule: flavin-nucleotide-binding protein; PDBTitle: structure of the fad and heme binding protein msmeg_4975 from2 mycobacterium smegmatis
40	c1nrgA	Alignment	not modelled	91.7	10	PDB header: oxidoreductase Chain: A: PDB Molecule: pyridoxine 5'-phosphate oxidase; PDBTitle: structure and properties of recombinant human pyridoxine-5'-phosphate2 oxidase
41	d1nrga	Alignment	not modelled	91.7	10	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
42	c5bncB	Alignment	not modelled	90.4	16	PDB header: heme binding protein Chain: B: PDB Molecule: heme binding protein msmeg_6519; PDBTitle: structure of heme binding protein msmeg_6519 from mycobacterium2 smegmatis
43	c3cp3A	Alignment	not modelled	89.5	7	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of conserved protein of unknown function dip18742 from corynebacterium diphtheriae
44	d2ptfa1	Alignment	not modelled	88.0	16	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: MTH863-like
45	d1ci0a	Alignment	not modelled	87.7	18	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
46	c2ptfB	Alignment	not modelled	87.3	16	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein mth_863; PDBTitle: crystal structure of protein mth_863 from methanobacterium2 thermoautotrophicum bound to fmn
47	c3gasA	Alignment	not modelled	86.1	7	PDB header: oxidoreductase Chain: A: PDB Molecule: heme oxygenase; PDBTitle: crystal structure of helicobacter pylori heme oxygenase hug22 in complex with heme
48	d1dnla	Alignment	not modelled	85.0	14	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
49	c4hmwB	Alignment	not modelled	84.9	9	PDB header: oxidoreductase Chain: B: PDB Molecule: pyridoxamine 5'-phosphate oxidase; PDBTitle: crystal structure of phzg from burkholderia lata 383
50	c2qeab	Alignment	not modelled	75.5	13	PDB header: oxidoreductase Chain: B: PDB Molecule: putative general stress protein 26; PDBTitle: crystal structure of a putative general stress protein 26 (jann_0955)2 from jannaschia sp. ccs1 at 2.46 a resolution
51	c6rk0A	Alignment	not modelled	75.2	14	PDB header: flavoprotein Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: structure of the flavocytochrome anf3 from azotobacter vinelandii
52	c3u34D	Alignment	not modelled	66.2	7	PDB header: protein binding Chain: D: PDB Molecule: general stress protein; PDBTitle: crystal structure of the general stress fmn/fad binding protein from2 the phytopathogen xanthomonas citri
53	d2vpaa1	Alignment	not modelled	65.0	13	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like

54	c3dmbA		not modelled	60.3	6	PDB header: oxidoreductase Chain: A: PDB Molecule: putative general stress protein 26 with a pnp-oxidase like PDBTitle: crystal structure of a putative general stress family protein2 (xcc2264) from xanthomonas campestris pv. campestris at 2.30 a3 resolution
55	d1flma		not modelled	57.7	15	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
56	c2i51B		not modelled	38.3	9	PDB header: flavoprotein Chain: B: PDB Molecule: uncharacterized conserved protein of cog5135; PDBTitle: crystal structure of a pyridoxamine 5'-phosphate oxidase-related, fmn2 binding protein (npu_n_f5749) from nostoc punctiforme pcc 73102 at 3.1.40 a resolution
57	d1xhna1		not modelled	31.9	8	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
58	c2ou5B		not modelled	25.3	12	PDB header: flavoprotein Chain: B: PDB Molecule: pyridoxamine 5'-phosphate oxidase-related, fmn-binding; PDBTitle: crystal structure of a pyridoxamine 5'-phosphate oxidase-related fmn2 binding protein (jann_0254) from jannaschia sp. ccs1 at 1.60 a3 resolution
59	d2imla1		not modelled	24.8	10	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: MTH863-like
60	d2nr4a1		not modelled	23.4	13	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: MTH863-like
61	d2arca		not modelled	22.8	15	Fold: Double-stranded beta-helix Superfamily: Regulatory protein AraC Family: Regulatory protein AraC
62	c4n7rD		not modelled	19.9	11	PDB header: oxidoreductase/protein binding Chain: D: PDB Molecule: genomic dna, chromosome 3, p1 clone: mxl8; PDBTitle: crystal structure of arabidopsis glutamyl-tRNA reductase in complex2 with its binding protein
63	c2o15B		not modelled	12.5	11	PDB header: transcription regulator Chain: B: PDB Molecule: pai 2 protein; PDBTitle: crystal structure of a protease synthase and sporulation negative2 regulatory protein pai 2 from bacillus stearothermophilus
64	c2o6pA		not modelled	11.7	15	PDB header: transport protein Chain: A: PDB Molecule: iron-regulated surface determinant protein c; PDBTitle: crystal structure of the heme-isdc complex
65	c2e7dA		not modelled	11.3	10	PDB header: metal binding protein Chain: A: PDB Molecule: hypothetical protein isdh; PDBTitle: crystal structure of a neat domain from staphylococcus aureus
66	c1ztnA		not modelled	10.3	100	PDB header: transport protein Chain: A: PDB Molecule: potassium voltage-gated channel subfamily c member 4; PDBTitle: inactivation gate of potassium channel raw3, nmr, 8 structures
67	d2o6pa1		not modelled	10.0	16	Fold: Immunoglobulin-like beta-sandwich Superfamily: NEAT domain-like Family: NEAT domain
68	c2x8nA		not modelled	9.8	18	PDB header: structural genomics Chain: A: PDB Molecule: cv0863; PDBTitle: solution nmr structure of uncharacterized protein cv0863 from2 chromobacterium violaceum. northeast structural genomics target3 (nesg) target cvt3. oscp target cv0863.
69	c4wt5A		not modelled	9.6	17	PDB header: chaperone Chain: A: PDB Molecule: rubisco accumulation factor 1, isoform 2; PDBTitle: the c-terminal domain of rubisco accumulation factor 1 from2 arabidopsis thaliana, crystal form ii'
70	c2k78A		not modelled	9.5	16	PDB header: heme-binding protein Chain: A: PDB Molecule: iron-regulated surface determinant protein c; PDBTitle: solution structure of the isdc neat domain bound to zinc2 protoporphyrin
71	c3rurB		not modelled	9.2	13	PDB header: metal transport Chain: B: PDB Molecule: iron-regulated surface determinant protein b; PDBTitle: staphylococcus aureus heme-bound selenomethionine-labeled isdb-n2
72	d1ftaa		not modelled	8.5	13	Fold: Carbohydrate phosphatase Superfamily: Carbohydrate phosphatase Family: Inositol monophosphatase/fructose-1,6-bisphosphatase-like
73	d2itea1		not modelled	8.4	4	Fold: Immunoglobulin-like beta-sandwich Superfamily: NEAT domain-like Family: NEAT domain
74	c3ke2A		not modelled	8.4	15	PDB header: unknown function Chain: A: PDB Molecule: uncharacterized protein yp_928783.1; PDBTitle: crystal structure of a duf2131 family protein (sama_2911) from2 shewanella amazonensis sb2b at 2.50 a resolution
75	c3idwA		not modelled	8.3	30	PDB header: endocytosis Chain: A: PDB Molecule: actin cytoskeleton-regulatory complex protein sla1; PDBTitle: crystal structure of sla1 homology domain 2
76	c5e6fA		not modelled	8.0	25	PDB header: viral protein Chain: A: PDB Molecule: cnpv261 holiday junction resolvase protein; PDBTitle: canarypox virus resolvase
						PDB header: oxidoreductase Chain: A: PDB Molecule: putative flavin reductase with split barrel

77	c3fgeA_		not modelled	7.9	15	domain; PDBTitle: crystal structure of putative flavin reductase with split barrel2 domain (yp_750721.1) from shewanella frigidimarina ncimb 400 at 1.743 a resolution
78	c3l48B_		not modelled	6.4	12	PDB header: transport protein Chain: B: PDB Molecule: outer membrane usher protein papc; PDBTitle: crystal structure of the c-terminal domain of the papc usher
79	c4makA_		not modelled	5.8	44	PDB header: hydrolase Chain: A: PDB Molecule: crispr-associated endoribonuclease cas2; PDBTitle: crystal structure of a putative ssrna endonuclease cas2, crispr2 adaptation protein from e.coli
80	d1vheal		not modelled	5.7	22	Fold: Domain of alpha and beta subunits of F1 ATP synthase-like Superfamily: Aminopeptidase/glucanase lid domain Family: Aminopeptidase/glucanase lid domain
81	d1ewfa1		not modelled	5.6	19	Fold: Aha1/BPI domain-like Superfamily: Bactericidal permeability-increasing protein, BPI Family: Bactericidal permeability-increasing protein, BPI
82	c3zfnA_		not modelled	5.5	29	PDB header: hydrolase Chain: A: PDB Molecule: n-terminal protease npro; PDBTitle: crystal structure of product-like, processed n-terminal protease npro