

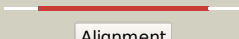

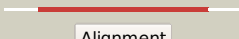



















Phyre2

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Description	RVBD0245 (-) _296005_296493
Date	Tue Jul 23 14:50:30 BST 2019
Unique Job ID	1f48a5c69be621f9

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3pftA_	 Alignment		100.0	79	PDB header: oxidoreductase Chain: A: PDB Molecule: flavin reductase; PDBTitle: crystal structure of untagged c54a mutant flavin reductase (dszd) in2 complex with fmn from mycobacterium goodii
2	c3rh7A_	 Alignment		100.0	28	PDB header: oxidoreductase Chain: A: PDB Molecule: hypothetical oxidoreductase; PDBTitle: crystal structure of a putative oxidoreductase (sma0793) from2 sinorhizobium meliloti 1021 at 3.00 a resolution
3	c5zc2B_	 Alignment		100.0	27	PDB header: flavoprotein Chain: B: PDB Molecule: p-hydroxyphenylacetate 3-hydroxylase, reductase component; PDBTitle: acinetobacter baumannii p-hydroxyphenylacetate 3-hydroxylase (hpah),2 reductase component (c1)
4	c3nfwB_	 Alignment		100.0	25	PDB header: oxidoreductase Chain: B: PDB Molecule: flavin reductase-like, fmn-binding protein; PDBTitle: crystal structure of nitrilotriacetate monooxygenase component b2 (a0r521 homolog) from mycobacterium thermoresistibile
5	c3k87B_	 Alignment		100.0	21	PDB header: oxidoreductase Chain: B: PDB Molecule: chlorophenol-4-monooxygenase component 1; PDBTitle: crystal structure of nadh:fad oxidoreductase (tftc) - fad2 complex
6	c4l82D_	 Alignment		100.0	23	PDB header: oxidoreductase Chain: D: PDB Molecule: rifea.00250.a; PDBTitle: structure of a putative oxidoreductase from rickettsia felis
7	c4hx6D_	 Alignment		100.0	33	PDB header: oxidoreductase Chain: D: PDB Molecule: oxidoreductase; PDBTitle: streptomyces globisporus c-1027 nadh:fad oxidoreductase sgce6
8	c2qckA_	 Alignment		100.0	23	PDB header: oxidoreductase Chain: A: PDB Molecule: flavin reductase domain protein; PDBTitle: crystal structure of flavin reductase domain protein (yp_831077.1)2 from arthrobacter sp. fb24 at 1.90 a resolution
9	c2r0xA_	 Alignment		100.0	14	PDB header: oxidoreductase Chain: A: PDB Molecule: possible flavin reductase; PDBTitle: crystal structure of a putative flavin reductase (ycdh, hs_1225) from2 haemophilus somnus 129pt at 1.06 a resolution
10	c3cb0B_	 Alignment		100.0	16	PDB header: oxidoreductase Chain: B: PDB Molecule: 4-hydroxyphenylacetate 3-monooxygenase; PDBTitle: cobr
11	c4xhyA_	 Alignment		100.0	30	PDB header: oxidoreductase Chain: A: PDB Molecule: flavin reductase domain protein, fmn-binding protein; PDBTitle: nadh:fmn oxidoreductase from paracoccus denitrificans

12	c2d38A_	Alignment		100.0	20	PDB header: oxidoreductase Chain: A: PDB Molecule: hypothetical nadh-dependent fmn oxidoreductase; PDBTitle: the crystal structure of flavin reductase hpac complexed with nadp+
13	d1rz0a_	Alignment		100.0	24	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: NADH:FMN oxidoreductase-like
14	c2ecrA_	Alignment		100.0	31	PDB header: oxidoreductase Chain: A: PDB Molecule: flavin reductase component (hpac) of 4-hydroxyphenylacetate PDBTitle: crystal structure of the ligand-free form of the flavin reductase2 component (hpac) of 4-hydroxyphenylacetate 3-monooxygenase
15	d1wgba_	Alignment		100.0	21	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: NADH:FMN oxidoreductase-like
16	c4f07A_	Alignment		100.0	26	PDB header: oxidoreductase Chain: A: PDB Molecule: styrene monooxygenase component 2; PDBTitle: structure of the styrene monooxygenase flavin reductase (smob) from2 pseudomonas putida s12
17	d1i0ra_	Alignment		100.0	18	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: NADH:FMN oxidoreductase-like
18	c3bnkB_	Alignment		100.0	15	PDB header: electron transport Chain: B: PDB Molecule: flavodoxin; PDBTitle: x-ray crystal structure of flavodoxin from methanosarcina2 acetivorans
19	c2r6vA_	Alignment		100.0	18	PDB header: flavoprotein Chain: A: PDB Molecule: uncharacterized protein ph0856; PDBTitle: crystal structure of fmn-binding protein (np_142786.1) from pyrococcus2 horikoshii at 1.35 a resolution
20	d1ejea_	Alignment		100.0	18	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: NADH:FMN oxidoreductase-like
21	c3hmzA_	Alignment	not modelled	100.0	16	PDB header: oxidoreductase Chain: A: PDB Molecule: flavin reductase domain protein, fmn-binding; PDBTitle: crystal structure of a fmn-binding domain of flavin reductases-like2 enzyme (sba1_0626) from shewanella baltica os155 at 1.50 a resolution
22	c3bpbK_	Alignment	not modelled	100.0	22	PDB header: oxidoreductase Chain: B: PDB Molecule: nitrilotriacetate monooxygenase component b; PDBTitle: crystal structure of nitrilotriacetate monooxygenase component b from2 bacillus cereus
23	d1usca_	Alignment	not modelled	100.0	16	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: NADH:FMN oxidoreductase-like
24	c4z85A_	Alignment	not modelled	100.0	12	PDB header: oxidoreductase Chain: A: PDB Molecule: 2-nitrobenzoate nitroreductase; PDBTitle: crystal structur of pseudomonas fluorescens 2-nitrobenzoate 2-2 nitroreductase nbaa
25	c3e4vA_	Alignment	not modelled	100.0	17	PDB header: flavoprotein Chain: A: PDB Molecule: nadh:fmn oxidoreductase like protein; PDBTitle: crystal structure of nadh:fmn oxidoreductase like protein in complex2 with fmn (yp_544701.1) from methylobacillus flagellatus kt at 1.40 a3 resolution
26	c3fgeA_	Alignment	not modelled	100.0	15	PDB header: oxidoreductase Chain: A: PDB Molecule: putative flavin reductase with split barrel domain; PDBTitle: crystal structure of putative flavin reductase with split barre12 domain (yp_750721.1) from shewanella frigidimarina ncimb 400 at 1.743 a resolution
27	c2d5mA_	Alignment	not modelled	100.0	20	PDB header: electron transport Chain: A: PDB Molecule: flavodoxin; PDBTitle: flavodoxin of desulfovibrio vulgaris (miyazaki f)

28	c3b5mD_	Alignment	not modelled	99.9	13	PDB header: structural genomics, unknown function Chain: D: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of conserved uncharacterized protein from2 rhodopirellula baltica
29	d2imla1	Alignment	not modelled	99.5	19	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: MTH863-like
30	d2nr4a1	Alignment	not modelled	98.8	10	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: MTH863-like
31	c2ptfB_	Alignment	not modelled	98.8	9	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
32	d2ptfa1	Alignment	not modelled	98.6	10	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: MTH863-like
33	c2q9kA_	Alignment	not modelled	96.6	15	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
34	c5escD_	Alignment	not modelled	96.4	4	PDB header: oxidoreductase Chain: D: PDB Molecule: hupz; PDBTitle: crystal structure of group a streptococcus hupz
35	d1flma_	Alignment	not modelled	96.3	12	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
36	c2htdB_	Alignment	not modelled	95.9	13	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
37	c3tgvD_	Alignment	not modelled	91.5	13	PDB header: heme binding protein Chain: D: PDB Molecule: heme-binding protein hutz; PDBTitle: crystal structure of hutz,the heme storsge protein from vibrio2 cholerae
38	d1vl7a_	Alignment	not modelled	91.0	13	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
39	c3f7eB_	Alignment	not modelled	83.4	16	PDB header: unknown function Chain: B: PDB Molecule: pyridoxamine 5'-phosphate oxidase-related, fmn- PDBTitle: msmeg_3380 f420 reductase
40	c2htiA_	Alignment	not modelled	82.6	8	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
41	d2htia1	Alignment	not modelled	82.6	8	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
42	d1rfea_	Alignment	not modelled	76.0	11	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
43	d1w9aa_	Alignment	not modelled	75.6	16	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
44	d2hq7a1	Alignment	not modelled	75.0	10	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
45	c3u0IA_	Alignment	not modelled	72.6	11	PDB header: unknown function Chain: A: PDB Molecule: probable fad-binding, putative uncharacterized protein; PDBTitle: crystal structure of a probable fad-binding, putative uncharacterized2 protein from brucella melitensis
46	d2fhqa1	Alignment	not modelled	71.3	11	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
47	c2re7A_	Alignment	not modelled	66.4	13	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
48	d2asfa1	Alignment	not modelled	64.9	6	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
49	c3dmbA_	Alignment	not modelled	59.4	8	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
50	c3db0B_	Alignment	not modelled	58.0	4	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
51	c3u34D_	Alignment	not modelled	53.7	8	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
52	d2i02a1	Alignment	not modelled	50.0	13	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
						PDB header: structural genomics, unknown function

53	c3ec6A	Alignment	not modelled	46.9	6	Chain: A: PDB Molecule: general stress protein 26; PDBTitle: crystal structure of the general stress protein 26 from bacillus2 anthracis str. sterne
54	c2ig6B	Alignment	not modelled	43.7	17	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
55	d1ty9a	Alignment	not modelled	42.8	15	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
56	d1t9ma	Alignment	not modelled	38.3	15	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
57	d2hq9a1	Alignment	not modelled	37.9	11	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
58	c3fkhB	Alignment	not modelled	36.1	7	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
59	d1dnja	Alignment	not modelled	34.5	12	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
60	c1nrgA	Alignment	not modelled	33.2	11	PDB header: oxidoreductase Chain: A: PDB Molecule: pyridoxine 5'-phosphate oxidase; PDBTitle: structure and properties of recombinant human pyridoxine-5'-phosphate2 oxidase
61	d1nrga	Alignment	not modelled	33.2	11	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
62	d2fg9a1	Alignment	not modelled	32.8	5	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
63	c2hhzA	Alignment	not modelled	32.3	9	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
64	c5bncB	Alignment	not modelled	28.7	11	PDB header: heme binding protein Chain: B: PDB Molecule: heme binding protein msmeq_6519; PDBTitle: structure of heme binding protein msmeq_6519 from mycobacterium2 smegmatis
65	c3dnhB	Alignment	not modelled	24.0	13	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
66	d2arza1	Alignment	not modelled	20.5	14	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
67	c2iabB	Alignment	not modelled	19.7	14	PDB header: unknown function Chain: B: PDB Molecule: hypothetical protein; PDBTitle: crystal structure of a protein with fnn-binding split barrel fold2 (np_828636.1) from streptomyces avermitilis at 2.00 a resolution
68	c4hmrB	Alignment	not modelled	17.4	20	PDB header: oxidoreductase Chain: B: PDB Molecule: pyridoxamine 5'-phosphate oxidase; PDBTitle: crystal structure of phzq from burkholderia lata 383
69	d2fura1	Alignment	not modelled	17.3	10	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
70	d2a2ja1	Alignment	not modelled	14.6	21	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
71	c5wvrA	Alignment	not modelled	14.1	21	PDB header: lipid binding protein Chain: A: PDB Molecule: kla0c04147p; PDBTitle: crystal structure of osh1 ord domain in complex with cholesterol
72	c1zi7C	Alignment	not modelled	13.0	38	PDB header: lipid binding protein Chain: C: PDB Molecule: kes1 protein; PDBTitle: structure of truncated yeast oxysterol binding protein osh4
73	c6eciQ	Alignment	not modelled	12.6	13	PDB header: fad-binding protein Chain: Q: PDB Molecule: pyridoxamine 5'-phosphate oxidase-related, fnn-binding PDBTitle: structure of the fad binding protein msmeq_5243 from mycobacterium2 smegmatis
74	c2a2ja	Alignment	not modelled	12.4	21	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
75	d1zhxa1	Alignment	not modelled	11.8	38	Fold: Oxysterol-binding protein-like Superfamily: Oxysterol-binding protein-like Family: Oxysterol-binding protein
76	c3gasA	Alignment	not modelled	10.5	12	PDB header: oxidoreductase Chain: A: PDB Molecule: heme oxygenase; PDBTitle: crystal structure of helicobacter pylori heme oxygenase hugz2 in complex with heme
77	c5zm8A	Alignment	not modelled	10.3	38	PDB header: lipid transport Chain: A: PDB Molecule: oxysterol-binding protein-related protein 2; PDBTitle: crystal structure of orp2-ord in complex with pi(4,5)p2 PDB header: structural genomics, unknown function

78	c3cp3A_	Alignment	not modelled	9.6	13	Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of conserved protein of unknown function dip18742 from corynebacterium diphtheriae
79	c2ou5B_	Alignment	not modelled	9.4	9	PDB header: flavoprotein Chain: B: PDB Molecule: pyridoxamine 5'-phosphate oxidase-related, fmn-binding; PDBTitle: crystal structure of a pyridoxamine 5'-phosphate oxidase-related fmn-2 binding protein (jann_0254) from jannaschia sp. ccs1 at 1.60 a3 resolution
80	c1mkyA_	Alignment	not modelled	9.2	20	PDB header: ligand binding protein Chain: A: PDB Molecule: probable gtp-binding protein enga; PDBTitle: structural analysis of the domain interactions in der, a switch2 protein containing two gtpase domains
81	c4zkyB_	Alignment	not modelled	9.0	19	PDB header: oxidoreductase Chain: B: PDB Molecule: pyridoxamine 5-phosphate oxidase; PDBTitle: structure of f420 binding protein, msmeg_6526, from mycobacterium2 smegmatis
82	c4inqA_	Alignment	not modelled	8.3	45	PDB header: lipid binding protein Chain: A: PDB Molecule: oxysterol-binding protein homolog 3; PDBTitle: crystal structure of osh3 ord in complex with pi(4)p from2 saccharomyces cerevisiae
83	c2i51B_	Alignment	not modelled	7.9	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 (npun_f5749) from nostoc punctiforme pcc 73102 at3 1.40 a resolution
84	d1mkya3	Alignment	not modelled	7.8	21	Fold: Alpha-lytic protease prodomain-like Superfamily: Probable GTPase Der, C-terminal domain Family: Probable GTPase Der, C-terminal domain
85	c4b2zB_	Alignment	not modelled	7.6	23	PDB header: transport protein Chain: B: PDB Molecule: oxysterol-binding protein homolog 6; PDBTitle: structure of osh6 in complex with phosphatidylserine
86	d1xhna1	Alignment	not modelled	7.4	11	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
87	c6qbyA_	Alignment	not modelled	7.2	15	PDB header: cytosolic protein Chain: A: PDB Molecule: tubulinyl-tyr carboxypeptidase 2; PDBTitle: crystal structure of vash 2 in complex with svbp
88	d1svba1	Alignment	not modelled	5.2	29	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Class II viral fusion proteins C-terminal domain