

Phyre²

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Description	RVBD3161c_(-)_3529987_3531135
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Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3n0qA_			100.0	24	PDB header: oxidoreductase Chain: A: PDB Molecule: putative aromatic-ring hydroxylating dioxygenase; PDBTitle: crystal structure of a putative aromatic-ring hydroxylating2 dioxygenase (tm1040_3219) from silicibacter sp. tm1040 at 1.80 a3 resolution
2	c3vcaA_			100.0	25	PDB header: oxidoreductase Chain: A: PDB Molecule: ring-hydroxylating dioxygenase; PDBTitle: quaternary ammonium oxidative demethylation: x-ray crystallographic,2 resonance raman and uv-visible spectroscopic analysis of a rieske-3 type demethylase
3	c2b1xE_			100.0	23	PDB header: oxidoreductase Chain: E: PDB Molecule: naphthalene dioxygenase large subunit; PDBTitle: crystal structure of naphthalene 1,2-dioxygenase from rhodococcus sp.
4	c1uljA_			100.0	22	PDB header: oxidoreductase Chain: A: PDB Molecule: biphenyl dioxygenase large subunit; PDBTitle: biphenyl dioxygenase (bpha1a2) in complex with the substrate
5	c1wqlA_			100.0	21	PDB header: oxidoreductase Chain: A: PDB Molecule: iron-sulfur protein large subunit of cumene dioxygenase; PDBTitle: cumene dioxygenase (cuma1a2) from pseudomonas fluorescens ip01
6	c2hmna_			100.0	22	PDB header: oxidoreductase Chain: A: PDB Molecule: naphthalene 1,2-dioxygenase alpha subunit; PDBTitle: crystal structure of the naphthalene 1,2-dioxygenase f352v2 mutant bound to anthracene.
7	c2gbxE_			100.0	21	PDB header: oxidoreductase Chain: E: PDB Molecule: biphenyl 2,3-dioxygenase alpha subunit; PDBTitle: crystal structure of biphenyl 2,3-dioxygenase from sphingomonas2 yanoikuyaе b1 bound to biphenyl
8	c3gteB_			100.0	14	PDB header: electron transport, oxidoreductase Chain: B: PDB Molecule: ddmc; PDBTitle: crystal structure of dicamba monooxygenase with non-heme iron
9	c3gkqB_			100.0	20	PDB header: oxidoreductase Chain: B: PDB Molecule: terminal oxygenase component of carbazole 1,9a-dioxygenase; PDBTitle: terminal oxygenase of carbazole 1,9a-dioxygenase from novosphingobium2 sp. ka1
10	c2zyIA_			100.0	15	PDB header: oxidoreductase Chain: A: PDB Molecule: possible oxidoreductase; PDBTitle: crystal structure of 3-ketosteroid-9-alpha-hydroxylase2 (ksha) from m. tuberculosis
11	c3gcfC_			100.0	18	PDB header: oxidoreductase Chain: C: PDB Molecule: terminal oxygenase component of carbazole 1,9a- PDBTitle: terminal oxygenase of carbazole 1,9a-dioxygenase from2 nocardiooides aromaticivorans ic177

12	c4qdfA	Alignment		100.0	14	PDB header: oxidoreductase/oxidoreductase inhibitor Chain: A: PDB Molecule: 3-ketosteroid 9alpha-hydroxylase oxygenase; PDBTitle: crystal structure of apo ksha5 and ksha1 in complex with 1,4-30q-coa2 from r. rhodochrous
13	c4qdfB	Alignment		100.0	19	PDB header: oxidoreductase/oxidoreductase inhibitor Chain: B: PDB Molecule: 3-ketosteroid 9alpha-hydroxylase oxygenase; PDBTitle: crystal structure of apo ksha5 and ksha1 in complex with 1,4-30q-coa2 from r. rhodochrous
14	c2de7B	Alignment		100.0	17	PDB header: oxidoreductase Chain: B: PDB Molecule: terminal oxygenase component of carbazole; PDBTitle: the substrate-bound complex between oxygenase and2 ferredoxin in carbazole 1,9a-dioxygenase
15	c1z01D	Alignment		100.0	17	PDB header: oxidoreductase Chain: D: PDB Molecule: 2-oxo-1,2-dihydroquinoline 8-monoxygenase, oxygenase PDBTitle: 2-oxoquinoline 8-monoxygenase component: active site modulation by2 rieske-[2fe-2s] center oxidation/reduction
16	d2b1xa1	Alignment		100.0	30	Fold: ISP domain Superfamily: ISP domain Family: Ring hydroxylating alpha subunit ISP domain
17	d1wqla1	Alignment		100.0	32	Fold: ISP domain Superfamily: ISP domain Family: Ring hydroxylating alpha subunit ISP domain
18	d1ulia1	Alignment		100.0	37	Fold: ISP domain Superfamily: ISP domain Family: Ring hydroxylating alpha subunit ISP domain
19	d2bmoa1	Alignment		100.0	28	Fold: ISP domain Superfamily: ISP domain Family: Ring hydroxylating alpha subunit ISP domain
20	d1o7na1	Alignment		100.0	30	Fold: ISP domain Superfamily: ISP domain Family: Ring hydroxylating alpha subunit ISP domain
21	d1z01a1	Alignment	not modelled	100.0	19	Fold: ISP domain Superfamily: ISP domain Family: Ring hydroxylating alpha subunit ISP domain
22	d2de6a1	Alignment	not modelled	100.0	25	Fold: ISP domain Superfamily: ISP domain Family: Ring hydroxylating alpha subunit ISP domain
23	d2bmoa2	Alignment	not modelled	99.9	15	Fold: TBP-like Superfamily: Bet v1-like Family: Ring hydroxylating alpha subunit catalytic domain
24	c3d89A	Alignment	not modelled	99.9	14	PDB header: electron transport Chain: A: PDB Molecule: rieske domain-containing protein; PDBTitle: crystal structure of a soluble rieske ferredoxin from mus musculus
25	d1wqla2	Alignment	not modelled	99.9	11	Fold: TBP-like Superfamily: Bet v1-like Family: Ring hydroxylating alpha subunit catalytic domain
26	d2b1xa2	Alignment	not modelled	99.9	21	Fold: TBP-like Superfamily: Bet v1-like Family: Ring hydroxylating alpha subunit catalytic domain
27	d1ulia2	Alignment	not modelled	99.9	10	Fold: TBP-like Superfamily: Bet v1-like Family: Ring hydroxylating alpha subunit catalytic domain
28	d1o7na2	Alignment	not modelled	99.8	18	Fold: TBP-like Superfamily: Bet v1-like Family: Ring hydroxylating alpha subunit catalytic domain
29	d1vm9a	Alignment	not modelled	99.8	21	Fold: ISP domain Superfamily: ISP domain Family: Rieske iron-sulfur protein (ISP)

30	c2de7E		Alignment	not modelled	99.8	22	PDB header: oxidoreductase Chain: E: PDB Molecule: ferredoxin component of carbazole; PDBTitle: the substrate-bound complex between oxygenase and ferredoxin in carbazole 1,9a-dioxygenase
31	c4aivA		Alignment	not modelled	99.8	22	PDB header: oxidoreductase Chain: A: PDB Molecule: probable nitrite reductase [nad(p)h] small subunit nird; PDBTitle: crystal structure of putative nadh-dependent nitrite reductase small2 subunit from mycobacterium tuberculosis
32	d2jzaa1		Alignment	not modelled	99.8	19	Fold: ISP domain Superfamily: ISP domain Family: NirD-like
33	c3dqyA		Alignment	not modelled	99.8	23	PDB header: oxidoreductase Chain: A: PDB Molecule: toluene 1,2-dioxygenase system ferredoxin PDBTitle: crystal structure of toluene 2,3-dioxygenase ferredoxin
34	d1fqta		Alignment	not modelled	99.8	23	Fold: ISP domain Superfamily: ISP domain Family: Rieske iron-sulfur protein (ISP)
35	d3c0da1		Alignment	not modelled	99.8	14	Fold: ISP domain Superfamily: ISP domain Family: NirD-like
36	c3gceA		Alignment	not modelled	99.8	24	PDB header: oxidoreductase Chain: A: PDB Molecule: ferredoxin component of carbazole 1,9a-nocardiooides2 aromaticcivorans ic177 PDBTitle: ferredoxin of carbazole 1,9a-dioxygenase from nocardiooides2 aromaticcivorans ic177
37	c2qpzA		Alignment	not modelled	99.8	24	PDB header: metal binding protein Chain: A: PDB Molecule: naphthalene 1,2-dioxygenase system ferredoxin PDBTitle: naphthalene 1,2-dioxygenase rieske ferredoxin
38	d2jo6a1		Alignment	not modelled	99.8	17	Fold: ISP domain Superfamily: ISP domain Family: NirD-like
39	c2i7fB		Alignment	not modelled	99.8	22	PDB header: oxidoreductase Chain: B: PDB Molecule: ferredoxin component of dioxygenase; PDBTitle: sphingomonas yanoikuyaе b1 ferredoxin
40	c5cxmC		Alignment	not modelled	99.7	20	PDB header: metal binding protein Chain: C: PDB Molecule: cytochrome b6/f complex iron-sulfur subunit; PDBTitle: crystal structure of the cyanobacterial plasma membrane rieske protein2 petc3 from synechocystis pcc 6803
41	d1rfsa		Alignment	not modelled	99.6	22	Fold: ISP domain Superfamily: ISP domain Family: Rieske iron-sulfur protein (ISP)
42	d1q90c		Alignment	not modelled	99.5	21	Fold: ISP domain Superfamily: ISP domain Family: Rieske iron-sulfur protein (ISP)
43	d3cx5e1		Alignment	not modelled	99.5	30	Fold: ISP domain Superfamily: ISP domain Family: Rieske iron-sulfur protein (ISP)
44	c4ayyH		Alignment	not modelled	99.5	21	PDB header: oxidoreductase Chain: H: PDB Molecule: arob; PDBTitle: crystal structure of the arsenite oxidase protein complex2 from rhizobium species strain nt-26
45	d1g8kb		Alignment	not modelled	99.4	16	Fold: ISP domain Superfamily: ISP domain Family: Rieske iron-sulfur protein (ISP)
46	d2e74d1		Alignment	not modelled	99.4	20	Fold: ISP domain Superfamily: ISP domain Family: Rieske iron-sulfur protein (ISP)
47	d1riea		Alignment	not modelled	99.4	24	Fold: ISP domain Superfamily: ISP domain Family: Rieske iron-sulfur protein (ISP)
48	c2nvgA		Alignment	not modelled	99.3	25	PDB header: oxidoreductase Chain: A: PDB Molecule: ubiquinol-cytochrome c reductase iron-sulfur subunit; PDBTitle: soluble domain of rieske iron sulfur protein.
49	d1z01a2		Alignment	not modelled	99.2	15	Fold: TBP-like Superfamily: Bet v1-like Family: Ring hydroxylating alpha subunit catalytic domain
50	d1nyka		Alignment	not modelled	99.1	21	Fold: ISP domain Superfamily: ISP domain Family: Rieske iron-sulfur protein (ISP)
51	c2e76D		Alignment	not modelled	99.1	13	PDB header: photosynthesis Chain: D: PDB Molecule: cytochrome b6-f complex iron-sulfur subunit; PDBTitle: crystal structure of the cytochrome b6f complex with tridecyl-2 stigmatellin (tds) from m.laminosus
52	c2fyuE		Alignment	not modelled	99.0	25	PDB header: oxidoreductase Chain: E: PDB Molecule: ubiquinol-cytochrome c reductase iron-sulfur subunit, PDBTitle: crystal structure of bovine heart mitochondrial bc1 with jg1442 inhibitor
53	c2fynO		Alignment	not modelled	98.9	24	PDB header: oxidoreductase Chain: O: PDB Molecule: ubiquinol-cytochrome c reductase iron-sulfur PDBTitle: crystal structure analysis of the double mutant rhodobacter2 sphaeroides bc1 complex
54	d2de6a2		Alignment	not modelled	98.8	14	Fold: TBP-like Superfamily: Bet v1-like Family: Ring hydroxylating alpha subunit catalytic domain
55	c1n84F		Alignment	not modelled	98.7	30	PDB header: oxidoreductase Chain: E: PDB Molecule: ubiquinol-cytochrome c reductase iron-

55	c1p04L	Alignment	not modelled	98.7	50	sulfur subunit; PDBTitle: hdbt inhibited yeast cytochrome bc1 complex PDB header: electron transport Chain: B: PDB Molecule: ubiquinol-cytochrome c reductase iron-sulfur subunit; PDBTitle: structure of a functional obligate respiratory supercomplex from2 mycobacterium smegmatis
56	c6hwhB	Alignment	not modelled	97.8	25	Fold: ISP domain Superfamily: ISP domain Family: Rieske iron-sulfur protein (ISP)
57	d1jm1a	Alignment	not modelled	97.7	25	PDB header: membrane protein Chain: R: PDB Molecule: cytochrome b-c1 complex subunit rieske, mitochondrial; PDBTitle: cryoem structure of bovine cytochrome bc1 with no ligand bound
58	c6fo2R	Alignment	not modelled	96.1	24	PDB header: cell adhesion Chain: A: PDB Molecule: tegumental protein 20.8 kda; PDBTitle: crystal structure of dlc like domain of cstal3 (83-177aa)
59	c5x2dA	Alignment	not modelled	68.4	6	Fold: DLC Superfamily: DLC Family: DLC
60	d1pwka	Alignment	not modelled	62.2	14	PDB header: cell adhesion Chain: A: PDB Molecule: calcium binding protein; PDBTitle: fascia hepatica calcium binding protein fhcbp2: structure of the2 dynein light chain-like domain. p6422 native.
61	c5fx0A	Alignment	not modelled	44.6	9	PDB header: viral protein Chain: I: PDB Molecule: major structural protein 1; PDBTitle: structure of the tripod (bpupct-a-I) from the baseplate of2 bacteriophage tuc2009
62	c5e7tl	Alignment	not modelled	37.4	35	PDB header: transport protein Chain: C: PDB Molecule: zinc transport protein zntb; PDBTitle: the soluble domain structure of the zntb zn2+ efflux system
63	c3nwiC	Alignment	not modelled	37.0	14	PDB header: lyase Chain: A: PDB Molecule: carbonic anhydrase 2; PDBTitle: structure and inhibition of the co2-sensing carbonic anhydrase can22 from the pathogenic fungus cryptococcus neoformans
64	c2w3nA	Alignment	not modelled	35.7	26	PDB header: circadian clock protein Chain: B: PDB Molecule: period circadian protein homolog 2; PDBTitle: crystal structure of mouse cryptochromel in complex with period2
65	c4ct0B	Alignment	not modelled	32.3	13	PDB header: membrane protein, protein transport Chain: B: PDB Molecule: f1 capsule-anchoring protein; PDBTitle: crystal structure analysis of the middle domain of the2 caf1a usher
66	c3fcgB	Alignment	not modelled	30.1	14	PDB header: protein binding Chain: A: PDB Molecule: pih1 domain-containing protein 1; PDBTitle: pih1d1/phospho-tel2 complex
67	c4psiA	Alignment	not modelled	29.7	12	PDB header: lyase Chain: B: PDB Molecule: carbonic anhydrase; PDBTitle: carbonic anhydrase from glaciozyma antarctica
68	c5ztpB	Alignment	not modelled	29.7	29	PDB header: transport protein Chain: A: PDB Molecule: het-c2; PDBTitle: crystal structure of het-c2: a fungal glycolipid transfer protein2 (gltp)
69	c3kv0A	Alignment	not modelled	28.8	29	PDB header: hydrolase Chain: D: PDB Molecule: cs2 hydrolase; PDBTitle: holo form of carbon disulfide hydrolase
70	c3tenD	Alignment	not modelled	28.2	33	PDB header: structural protein/transport protein Chain: C: PDB Molecule: dynein light chain 1, cytoplasmic; PDBTitle: the structure of a yeast dyn2-nup159 complex and the molecular basis2 for the dynein light chain - nuclear pore interaction
71	c4ds1C	Alignment	not modelled	28.2	9	PDB header: lyase Chain: A: PDB Molecule: carbonic anhydrase; PDBTitle: x-ray structure of a beta-carbonic anhydrase from the red2 alga, porphyridium purpureum r-1
72	c1ddzA	Alignment	not modelled	27.9	43	PDB header: oxidoreductase Chain: B: PDB Molecule: nfc protein; PDBTitle: polysulfide reductase with bound quinone inhibitor,2 pentachlorophenol (pcp)
73	c2vpyB	Alignment	not modelled	27.2	17	PDB header: lyase Chain: A: PDB Molecule: putative carbonic anhydrase; PDBTitle: crystal structure of carbonic anhydrase from streptococcus mutans to2 1.4 angstrom resolution
74	c3lasA	Alignment	not modelled	27.0	29	PDB header: transcription Chain: P: PDB Molecule: dna-directed rna polymerase subunit p; PDBTitle: crystal structure of euryarchaeal rna polymerase from thermococcus2 kodakarensis
75	c4qiwP	Alignment	not modelled	26.1	21	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Plant lectins/antimicrobial peptides Family: Hevein-like agglutinin (lectin) domain
76	d1en2a2	Alignment	not modelled	26.1	30	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative uncharacterized protein ttha0547; PDBTitle: crystal structure of hypothetical protein ttha0547
77	c2z0rA	Alignment	not modelled	25.7	15	PDB header: lyase Chain: A: PDB Molecule: carbonic anhydrase; PDBTitle: crystal structure of the beta carbonic anhydrase psca3 isolated from2 pseudomonas aeruginosa
78	c4rxyA	Alignment	not modelled	25.5	27	PDB header: hydrolase Chain: A: PDB Molecule: carbonyl sulfide hydrolase; PDBTitle: crystal structure of thiobacillus thioparus thi115 carbonyl sulfide2 hydrolase / thiocyanate complex
79	c3vrkA	Alignment	not modelled	25.3	29	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Plant lectins/antimicrobial peptides Family: Hevein-like agglutinin (lectin) domain
80	d1ehda2	Alignment	not modelled	25.2	30	

81	d1ddza2		Alignment	not modelled	24.8	50	Fold: Resolvase-like Superfamily: beta-carbonic anhydrase, cab Family: beta-carbonic anhydrase, cab
82	c4v36B_		Alignment	not modelled	24.6	25	PDB header: transferase Chain: B: PDB Molecule: lysyl-tRNA-dependent l-ysyl-phosphatidylglycerol synthase; PDBTitle: the structure of l-pgs from bacillus licheniformis
83	c1yikA_		Alignment	not modelled	22.6	14	PDB header: unknown function Chain: A: PDB Molecule: hypothetical protein rv1284/mt1322; PDBTitle: crystal structure of rv1284 from mycobacterium tuberculosis in complex2 with thiocyanate
84	c2c3yA_		Alignment	not modelled	20.9	27	PDB header: oxidoreductase Chain: A: PDB Molecule: pyruvate-ferredoxin oxidoreductase; PDBTitle: crystal structure of the radical form of2 pyruvate:ferredoxin oxidoreductase from desulfovibrio3 africanus
85	d1nfga1		Alignment	not modelled	20.8	26	Fold: Composite domain of metallo-dependent hydrolases Superfamily: Composite domain of metallo-dependent hydrolases Family: Hydantoinase (dihydropyrimidinase)
86	d1uhva1		Alignment	not modelled	20.8	28	Fold: Glycosyl hydrolase domain Superfamily: Glycosyl hydrolase domain Family: Composite domain of glycosyl hydrolase families 5, 30, 39 and 51
87	d3e2ba1		Alignment	not modelled	20.6	9	Fold: DLC Superfamily: DLC Family: DLC
88	d1ddza1		Alignment	not modelled	20.3	43	Fold: Resolvase-like Superfamily: beta-carbonic anhydrase, cab Family: beta-carbonic anhydrase, cab
89	d1ei5a2		Alignment	not modelled	20.0	24	Fold: Streptavidin-like Superfamily: D-aminopeptidase, middle and C-terminal domains Family: D-aminopeptidase, middle and C-terminal domains
90	d1cmia_		Alignment	not modelled	19.7	9	Fold: DLC Superfamily: DLC Family: DLC
91	c4k8nF_		Alignment	not modelled	19.5	60	PDB header: lipid transport Chain: F: PDB Molecule: glycolipid transfer protein domain-containing protein 1; PDBTitle: crystal structure of human ceramide-1-phosphate transfer protein2 (cptp) in complex with 18:1 ceramide-1-phosphate (18:1-c1p)
92	d3orca_		Alignment	not modelled	19.1	29	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
93	c5mu4A_		Alignment	not modelled	18.8	12	PDB header: viral protein Chain: A: PDB Molecule: tail tubular protein a; PDBTitle: tail tubular protein a of klebsiella pneumoniae bacteriophage kp32
94	c3j20R_		Alignment	not modelled	18.8	40	PDB header: ribosome Chain: R: PDB Molecule: 30s ribosomal protein s17p; PDBTitle: promiscuous behavior of proteins in archaeal ribosomes revealed by cryo-em: implications for evolution of eukaryotic ribosomes (30s3 ribosomal subunit)
95	c5kdiA_		Alignment	not modelled	18.7	60	PDB header: lipid transport Chain: A: PDB Molecule: pleckstrin homology domain-containing family a member 8; PDBTitle: how fapp2 selects simple glycosphingolipids using the gtp-fold
96	d1swxa_		Alignment	not modelled	18.7	60	Fold: Glycolipid transfer protein, GLTP Superfamily: Glycolipid transfer protein, GLTP Family: Glycolipid transfer protein, GLTP
97	c6gwuB_		Alignment	not modelled	18.5	21	PDB header: lyase Chain: B: PDB Molecule: carbonic anhydrase; PDBTitle: carbonic anhydrase cance103p from candida albicans
98	c3eywA_		Alignment	not modelled	18.5	16	PDB header: transport protein Chain: A: PDB Molecule: c-terminal domain of glutathione-regulated potassium-efflux PDBTitle: crystal structure of the c-terminal domain of e. coli kefc in complex2 with keff
99	c3eyxB_		Alignment	not modelled	18.3	29	PDB header: lyase Chain: B: PDB Molecule: carbonic anhydrase; PDBTitle: crystal structure of carbonic anhydrase nce103 from2 saccharomyces cerevisiae