

Phyre²

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Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3anuA_			100.0	27	PDB header: lyase Chain: A; PDB Molecule: d-serine dehydratase; PDBTitle: crystal structure of d-serine dehydratase from chicken kidney
2	c4v15B_			100.0	31	PDB header: lyase Chain: B; PDB Molecule: d-threonine aldolase; PDBTitle: crystal structure of d-threonine aldolase from alcaligenes2 xylosidans
3	c3wggB_			100.0	25	PDB header: lyase Chain: B; PDB Molecule: d-threo-3-hydroxyaspartate dehydratase; PDBTitle: d-threo-3-hydroxyaspartate dehydratase c353a mutant in the metal-free2 form
4	c3llxA_			100.0	22	PDB header: isomerase Chain: A; PDB Molecule: predicted amino acid aldolase or racemase; PDBTitle: crystal structure of an ala racemase-like protein (il1761) from2 idiomarina loihiensis at 1.50 a resolution
5	c3gwqB_			100.0	22	PDB header: lyase Chain: B; PDB Molecule: d-serine deaminase; PDBTitle: crystal structure of a putative d-serine deaminase (bxe_a4060) from2 burkholderia xenovorans lb400 at 2.00 a resolution
6	c2dy3B_			97.6	14	PDB header: isomerase Chain: B; PDB Molecule: alanine racemase; PDBTitle: crystal structure of alanine racemase from corynebacterium glutamicum
7	c5irpA_			97.5	17	PDB header: isomerase Chain: A; PDB Molecule: alanine racemase 2; PDBTitle: crystal structure of the alanine racemase bsu17640 from bacillus2 subtilis
8	c4y2wA_			97.2	20	PDB header: isomerase Chain: A; PDB Molecule: alanine racemase 1; PDBTitle: crystal structure of a thermostable alanine racemase from2 thermoanaerobacter tengcongensis mb4
9	c1xfcB_			96.9	13	PDB header: isomerase Chain: B; PDB Molecule: alanine racemase; PDBTitle: the 1.9 a crystal structure of alanine racemase from mycobacterium2 tuberculosis contains a conserved entryway into the active site
10	c4tl0B_			96.9	14	PDB header: isomerase Chain: B; PDB Molecule: alanine racemase; PDBTitle: alanine racemase from acinetobacter baumannii
11	c3oo2B_			95.9	23	PDB header: isomerase Chain: B; PDB Molecule: alanine racemase 1; PDBTitle: 2.37 angstrom resolution crystal structure of an alanine racemase2 (alr) from staphylococcus aureus subsp. aureus col

12	c5yycC	Alignment		95.7	13	PDB header: isomerase Chain: C: PDB Molecule: alanine racemase; PDBTitle: crystal structure of alanine racemase from bacillus pseudofirmus (of4)
13	c2yxxA	Alignment		94.8	17	PDB header: lyase Chain: A: PDB Molecule: diaminopimelate decarboxylase; PDBTitle: crystal structure analysis of diaminopimelate decarboxylate (lysa)
14	c4kbxA	Alignment		94.3	9	PDB header: unknown function Chain: A: PDB Molecule: uncharacterized protein yhfx; PDBTitle: crystal structure of the pyridoxal-5'-phosphate dependent protein yhfx2 from escherichia coli
15	c4ecIA	Alignment		93.8	16	PDB header: isomerase Chain: A: PDB Molecule: serine racemase; PDBTitle: crystal structure of the cytoplasmic domain of vancomycin resistance2 serine racemase vantg
16	c1vftA	Alignment		92.7	13	PDB header: isomerase Chain: A: PDB Molecule: alanine racemase; PDBTitle: crystal structure of l-cycloserine-bound form of alanine2 racemase from d-cycloserine-producing streptomyces3 lavendulae
17	c4lusD	Alignment		91.6	11	PDB header: isomerase Chain: D: PDB Molecule: alanine racemase; PDBTitle: alanine racemase [clostridium difficile 630]
18	c3kw3B	Alignment		89.0	21	PDB header: isomerase Chain: B: PDB Molecule: alanine racemase; PDBTitle: crystal structure of alanine racemase from bartonella henselae with2 covalently bound pyridoxal phosphate
19	c2rjgC	Alignment		88.8	14	PDB header: isomerase Chain: C: PDB Molecule: alanine racemase; PDBTitle: crystal structure of biosynthetic alaine racemase from escherichia2 coli
20	c4bf5A	Alignment		88.7	17	PDB header: isomerase Chain: A: PDB Molecule: alanine racemase; PDBTitle: structure of broad spectrum racemase from aeromonas hydrophila
21	c3mt1B	Alignment	not modelled	82.9	15	PDB header: lyase Chain: B: PDB Molecule: putative carboxynorspermidine decarboxylase protein; PDBTitle: crystal structure of putative carboxynorspermidine decarboxylase2 protein from sinorhizobium meliloti
22	c2odoC	Alignment	not modelled	81.3	17	PDB header: isomerase Chain: C: PDB Molecule: alanine racemase; PDBTitle: crystal structure of pseudomonas fluorescens alanine racemase
23	c4dzaA	Alignment	not modelled	81.3	15	PDB header: isomerase Chain: A: PDB Molecule: lysine racemase; PDBTitle: crystal structure of a lysine racemase within internal aldimine2 linkage
24	c5bwA	Alignment	not modelled	80.8	15	PDB header: lyase/lyase inhibitor Chain: A: PDB Molecule: ornithine decarboxylase; PDBTitle: crystal structure of odc-plp-az1 ternary complex
25	c1niuA	Alignment	not modelled	79.8	16	PDB header: isomerase Chain: A: PDB Molecule: alanine racemase; PDBTitle: alanine racemase with bound inhibitor derived from l-2 cycloserine
26	c3co8B	Alignment	not modelled	79.5	13	PDB header: isomerase Chain: B: PDB Molecule: alanine racemase; PDBTitle: crystal structure of alanine racemase from oenococcus oeni
27	c2qghA	Alignment	not modelled	75.9	14	PDB header: lyase Chain: A: PDB Molecule: diaminopimelate decarboxylase; PDBTitle: crystal structure of diaminopimelate decarboxylase from helicobacter2 pylori complexed with l-lysine
28	c4begA	Alignment	not modelled	73.3	13	PDB header: isomerase Chain: A: PDB Molecule: alanine racemase 2; PDBTitle: structure of vibrio cholerae broad spectrum racemase double2 mutant r173a, n174a

29	c5gjmB	Alignment	not modelled	69.5	14	PDB header: lyase Chain: B: PDB Molecule: lysine/ornithine decarboxylase; PDBTitle: crystal strcuture of lysine decarboxylase from selenomonas ruminantium2 in c2 space group
30	c1tufA	Alignment	not modelled	68.3	11	PDB header: lyase Chain: A: PDB Molecule: diaminopimelate decarboxylase; PDBTitle: crystal structure of diaminopimelate decarboxylase from m.2 jannaschi
31	c3n2bD	Alignment	not modelled	66.4	12	PDB header: lyase Chain: D: PDB Molecule: diaminopimelate decarboxylase; PDBTitle: 1.8 angstrom resolution crystal structure of diaminopimelate2 decarboxylase (lysa) from vibrio cholerae.
32	c3oo2A	Alignment	not modelled	65.8	24	PDB header: isomerase Chain: A: PDB Molecule: alanine racemase 1; PDBTitle: 2.37 angstrom resolution crystal structure of an alanine racemase2 (alr) from staphylococcus aureus subsp. aureus col
33	c2p3eA	Alignment	not modelled	64.4	12	PDB header: lyase Chain: A: PDB Molecule: diaminopimelate decarboxylase; PDBTitle: crystal structure of aq1208 from aquifex aeolicus
34	c4fs9B	Alignment	not modelled	63.9	19	PDB header: isomerase Chain: B: PDB Molecule: broad specificity amino acid racemase; PDBTitle: complex structure of a broad specificity amino acid racemase (bar2) within the reactive intermediate
35	c5zl6A	Alignment	not modelled	58.2	17	PDB header: isomerase Chain: A: PDB Molecule: histidine racemase; PDBTitle: histidine racemase from leuconostoc mesenteroides subsp. sake nbrc2 102480
36	c6a2fB	Alignment	not modelled	57.2	21	PDB header: isomerase Chain: B: PDB Molecule: alanine racemase, biosynthetic; PDBTitle: crystal structure of biosynthetic alanine racemase from pseudomonas2 aeruginosa
37	c5x7nA	Alignment	not modelled	55.2	20	PDB header: lyase Chain: A: PDB Molecule: diaminopimelate decarboxylase; PDBTitle: crystal strcture of meso-diaminopimelate decarboxylase (dapdc) from2 corynebacterium glutamicum
38	c3cosD	Alignment	not modelled	48.3	7	PDB header: oxidoreductase Chain: D: PDB Molecule: alcohol dehydrogenase 4; PDBTitle: crystal structure of human class ii alcohol dehydrogenase (adh4) in2 complex with nad and zn
39	c1ma0B	Alignment	not modelled	44.7	7	PDB header: oxidoreductase Chain: B: PDB Molecule: glutathione-dependent formaldehyde dehydrogenase; PDBTitle: ternary complex of human glutathione-dependent formaldehyde2 dehydrogenase with nad+ and dodecanoic acid
40	c2pljA	Alignment	not modelled	41.3	15	PDB header: lyase Chain: A: PDB Molecule: lysine/ornithine decarboxylase; PDBTitle: crystal structure of lysine/ornithine decarboxylase complexed with2 putrescine from vibrio vulnificus
41	c2ouiB	Alignment	not modelled	39.3	16	PDB header: oxidoreductase Chain: B: PDB Molecule: nadp-dependent alcohol dehydrogenase; PDBTitle: d275p mutant of alcohol dehydrogenase from protozoa entamoeba2 histolytica
42	c3ukoA	Alignment	not modelled	38.1	7	PDB header: oxidoreductase Chain: A: PDB Molecule: alcohol dehydrogenase class-3; PDBTitle: crystal structure of s-nitrosoglutathione reductase from arabidopsis2 thaliana, complex with nadh
43	c3mubb	Alignment	not modelled	36.2	26	PDB header: isomerase Chain: B: PDB Molecule: alanine racemase; PDBTitle: the crystal structure of alanine racemase from streptococcus2 pneumoniae
44	d2toda1	Alignment	not modelled	35.7	18	Fold: Domain of alpha and beta subunits of F1 ATP synthase-like Superfamily: Alanine racemase C-terminal domain-like Family: Eukaryotic ODC-like
45	c2nvaH	Alignment	not modelled	35.5	14	PDB header: lyase Chain: H: PDB Molecule: arginine decarboxylase, a207r protein; PDBTitle: the x-ray crystal structure of the paramecium bursaria chlorella virus2 arginine decarboxylase bound to agmatine
46	c4rqaA	Alignment	not modelled	35.0	11	PDB header: oxidoreductase Chain: A: PDB Molecule: alcohol dehydrogenase; PDBTitle: alcohol dehydrogenase crystal structure in complex with nad
47	c4gi2B	Alignment	not modelled	34.0	14	PDB header: oxidoreductase Chain: B: PDB Molecule: crotonyl-coa carboxylase/reductase; PDBTitle: crotonyl-coa carboxylase/reductase
48	c1knwA	Alignment	not modelled	32.9	18	PDB header: lyase Chain: A: PDB Molecule: diaminopimelate decarboxylase; PDBTitle: crystal structure of diaminopimelate decarboxylase
49	c5ylnB	Alignment	not modelled	32.8	8	PDB header: oxidoreductase Chain: B: PDB Molecule: alcohol dehydrogenase, zinc-containing; PDBTitle: zinc dependent alcohol dehydrogenase 2 from streptococcus pneumonia -2 apo form
50	c1r37B	Alignment	not modelled	31.2	16	PDB header: oxidoreductase Chain: B: PDB Molecule: nad-dependent alcohol dehydrogenase; PDBTitle: alcohol dehydrogenase from sulfolobus solfataricus2 complexed with nad(h) and 2-ethoxyethanol
51	c1e3jA	Alignment	not modelled	30.8	24	PDB header: oxidoreductase Chain: A: PDB Molecule: nadp(h)-dependent ketose reductase; PDBTitle: ketose reductase (sorbitol dehydrogenase) from silverleaf2 whitefly
52	c5vm2A	Alignment	not modelled	30.5	19	PDB header: oxidoreductase Chain: A: PDB Molecule: alcohol dehydrogenase; PDBTitle: crystal structure of eck1772, an oxidoreductase/dehydrogenase of2 unknown specificity involved in membrane biogenesis from escherichia3 coli
53	c4cpdA	Alignment	not modelled	29.5	11	PDB header: oxidoreductase Chain: A: PDB Molecule: alcohol dehydrogenase; PDBTitle: alcohol dehydrogenase tadh from thermus sp. atn1
54	c5kjaA	Alignment	not modelled	29.1	14	PDB header: oxidoreductase Chain: A: PDB Molecule: l-threonine 3-dehydrogenase;

54	c3nja	Alignment	not modelled	29.1	14	PDBTitle: crystal structure of l-threonine 3-dehydrogenase from burkholderia2 thailandensis
55	c1kolA	Alignment	not modelled	28.5	20	PDB header: oxidoreductase Chain: A: PDB Molecule: formaldehyde dehydrogenase; PDBTitle: crystal structure of formaldehyde dehydrogenase
56	c5k1sD	Alignment	not modelled	26.1	18	PDB header: oxidoreductase Chain: D: PDB Molecule: oxidoreductase, zinc-binding dehydrogenase family; PDBTitle: crystal structure of aibc
57	c2j66A	Alignment	not modelled	25.6	13	PDB header: lyase Chain: A: PDB Molecule: btrk; PDBTitle: structural characterisation of btrk decarboxylase from2 butirosin biosynthesis
58	c4ilkB	Alignment	not modelled	24.9	21	PDB header: oxidoreductase Chain: B: PDB Molecule: starvation sensing protein rspb; PDBTitle: crystal structure of short chain alcohol dehydrogenase (rspb) from e.2 coli cft073 (efi target efi-506413) complexed with cofactor nadh
59	c4gkvC	Alignment	not modelled	24.8	12	PDB header: oxidoreductase Chain: C: PDB Molecule: alcohol dehydrogenase, propanol-prefering; PDBTitle: structure of escherichia coli adhp (ethanol-inducible dehydrogenase)2 with bound nad
60	c2eihA	Alignment	not modelled	24.6	12	PDB header: oxidoreductase Chain: A: PDB Molecule: alcohol dehydrogenase; PDBTitle: crystal structure of nad-dependent alcohol dehydrogenase
61	c3hura	Alignment	not modelled	22.8	17	PDB header: isomerase Chain: A: PDB Molecule: alanine racemase; PDBTitle: crystal structure of alanine racemase from oenococcus oeni
62	c2dphA	Alignment	not modelled	22.1	25	PDB header: oxidoreductase Chain: A: PDB Molecule: formaldehyde dimutase; PDBTitle: crystal structure of formaldehyde dimutase
63	c4a2cB	Alignment	not modelled	21.9	12	PDB header: oxidoreductase Chain: B: PDB Molecule: galactitol-1-phosphate 5-dehydrogenase; PDBTitle: crystal structure of galactitol-1-phosphate dehydrogenase from2 escherichia coli
64	c4eezB	Alignment	not modelled	21.6	17	PDB header: oxidoreductase Chain: B: PDB Molecule: alcohol dehydrogenase 1; PDBTitle: crystal structure of lactococcus lactis alcohol dehydrogenase variant2 re1
65	c3krC	Alignment	not modelled	20.7	8	PDB header: oxidoreductase Chain: C: PDB Molecule: crotonyl coa reductase; PDBTitle: crystal structure of putative crotonyl coa reductase from streptomyces2 coelicolor a3(2)
66	c1h2bA	Alignment	not modelled	20.7	8	PDB header: oxidoreductase Chain: A: PDB Molecule: alcohol dehydrogenase; PDBTitle: crystal structure of the alcohol dehydrogenase from the2 hyperthermophilic archaeon aeropyrum pernix at 1.65a resolution
67	c3m6iA	Alignment	not modelled	20.4	18	PDB header: oxidoreductase Chain: A: PDB Molecule: l-arabinitol 4-dehydrogenase; PDBTitle: l-arabinitol 4-dehydrogenase
68	c2dfvB	Alignment	not modelled	19.8	21	PDB header: oxidoreductase Chain: B: PDB Molecule: probable l-threonine 3-dehydrogenase; PDBTitle: hyperthermophilic threonine dehydrogenase from pyrococcus horikoshii
69	c2ejvA	Alignment	not modelled	19.3	20	PDB header: oxidoreductase Chain: A: PDB Molecule: l-threonine 3-dehydrogenase; PDBTitle: crystal structure of threonine 3-dehydrogenase complexed with nad+
70	c1cd0B	Alignment	not modelled	18.1	7	PDB header: oxidoreductase (ch-oh(d)-nad(a)) Chain: B: PDB Molecule: alcohol dehydrogenase; PDBTitle: alcohol dehydrogenase (e.c.1.1.1.1) (ee isozyme) complexed with2 nicotinamide adenine dinucleotide (nad), and zinc
71	c3qf4B	Alignment	not modelled	17.9	23	PDB header: transport protein Chain: B: PDB Molecule: uncharacterized abc transporter atp-binding protein PDBTitle: crystal structure of a heterodimeric abc transporter in its inward-2 facing conformation
72	c1hf3A	Alignment	not modelled	17.8	8	PDB header: oxidoreductase Chain: A: PDB Molecule: alcohol dehydrogenase e chain; PDBTitle: atomic x-ray structure of liver alcohol dehydrogenase containing2 cadmium and a hydroxide adduct to nadh
73	c2dxG	Alignment	not modelled	17.4	20	PDB header: hydrolase Chain: G: PDB Molecule: thiocyanate hydrolase subunit alpha; PDBTitle: recombinant thiocyanate hydrolase, fully-matured form
74	c3b5xB	Alignment	not modelled	17.4	23	PDB header: membrane protein Chain: B: PDB Molecule: lipid a export atp-binding/permease protein msba; PDBTitle: crystal structure of msba from vibrio cholerae
75	d2ngra1	Alignment	not modelled	17.1	22	Fold: beta-clip Superfamily: MoeA C-terminal domain-like Family: MoeA C-terminal domain-like
76	c2qf4A	Alignment	not modelled	16.6	35	PDB header: structural protein Chain: A: PDB Molecule: cell shape determining protein mrec; PDBTitle: high resolution structure of the major periplasmic domain from the2 cell shape-determining filament mrec (orthorhombic form)
77	c3qz9D	Alignment	not modelled	15.8	17	PDB header: lyase Chain: D: PDB Molecule: co-type nitrile hydratase beta subunit; PDBTitle: crystal structure of co-type nitrile hydratase beta-y215f from2 pseudomonas putida.
78	c2j5uB	Alignment	not modelled	15.7	27	PDB header: cell shape regulation Chain: B: PDB Molecule: mrec protein; PDBTitle: mrec lysteria monocytogenes
79	c1kevB	Alignment	not modelled	15.7	16	PDB header: oxidoreductase Chain: B: PDB Molecule: nadp-dependent alcohol dehydrogenase;

					PDBTitle: structure of nadp-dependent alcohol dehydrogenase
80	c4ejmA	Alignment	not modelled	15.3	PDB header: oxidoreductase Chain: A: PDB Molecule: putative zinc-binding dehydrogenase; PDBTitle: crystal structure of a putative zinc-binding dehydrogenase (target2 psi-012003) from sinorhizobium meliloti 1021 bound to nadp
81	c1pl6A	Alignment	not modelled	14.9	PDB header: oxidoreductase Chain: A: PDB Molecule: sorbitol dehydrogenase; PDBTitle: human sdh/nadh/inhibitor complex
82	c5mkkA	Alignment	not modelled	14.7	PDB header: transport protein Chain: A: PDB Molecule: multidrug resistance abc transporter atp-binding and PDBTitle: crystal structure of the heterodimeric abc transporter tmrab, a2 homolog of the antigen translocation complex tap
83	c1lluD	Alignment	not modelled	14.3	PDB header: oxidoreductase Chain: D: PDB Molecule: alcohol dehydrogenase; PDBTitle: the ternary complex of pseudomonas aeruginosa alcohol2 dehydrogenase with its coenzyme and weak substrate
84	c2cf5A	Alignment	not modelled	14.2	PDB header: oxidoreductase Chain: A: PDB Molecule: cinnamyl alcohol dehydrogenase; PDBTitle: crystal structures of the arabidopsis cinnamyl alcohol dehydrogenases, atcad5
85	c1s1iQ	Alignment	not modelled	13.5	PDB header: ribosome Chain: Q: PDB Molecule: 60s ribosomal protein l21-a; PDBTitle: structure of the ribosomal 80s-eef2-sordarin complex from yeast2 obtained by docking atomic models for rna and protein components into3 a 11.7 a cryo-em map. this file, 1s1i, contains 60s subunit. the 40s4 ribosomal subunit is in file 1s1h.
86	d2ix0a3	Alignment	not modelled	13.4	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Cold shock DNA-binding domain-like
87	c1p0fA	Alignment	not modelled	12.9	PDB header: oxidoreductase Chain: A: PDB Molecule: nadp-dependent alcohol dehydrogenase; PDBTitle: crystal structure of the binary complex: nadp(h)-dependent vertebrate2 alcohol dehydrogenase (adh8) with the cofactor nadp
88	c3j21R	Alignment	not modelled	12.7	PDB header: ribosome Chain: R: PDB Molecule: 50s ribosomal protein l21e; PDBTitle: promiscuous behavior of proteins in archaeal ribosomes revealed by2 cryo-em: implications for evolution of eukaryotic ribosomes (50s3 ribosomal proteins)
89	d1vqoql	Alignment	not modelled	12.5	Fold: SH3-like barrel Superfamily: Translation proteins SH3-like domain Family: Ribosomal proteins L24p and L21e
90	c5ochH	Alignment	not modelled	12.2	PDB header: hydrolase Chain: H: PDB Molecule: atp-binding cassette sub-family b member 8, mitochondrial; PDBTitle: the crystal structure of human abcb8 in an outward-facing state
91	c2yl4A	Alignment	not modelled	12.0	PDB header: membrane protein Chain: A: PDB Molecule: atp-binding cassette sub-family b member 10, PDBTitle: structure of the human mitochondrial abc transporter, abcb10
92	c2lo4A	Alignment	not modelled	11.9	PDB header: protein transport Chain: A: PDB Molecule: optineurin; PDBTitle: nmr solution structure of optineurin zinc-finger domain
93	d1ugpb	Alignment	not modelled	11.8	Fold: SH3-like barrel Superfamily: Electron transport accessory proteins Family: Nitrile hydratase beta chain
94	d1uufa1	Alignment	not modelled	11.7	Fold: GroES-like Superfamily: GroES-like Family: Alcohol dehydrogenase-like, N-terminal domain
95	d1kolal1	Alignment	not modelled	11.6	Fold: GroES-like Superfamily: GroES-like Family: Alcohol dehydrogenase-like, N-terminal domain
96	c4jbiB	Alignment	not modelled	11.3	PDB header: oxidoreductase Chain: B: PDB Molecule: alcohol dehydrogenase (zinc); PDBTitle: 2.35a resolution structure of nadph bound thermostable alcohol2 dehydrogenase from pyrobaculum aerophilum
97	c2vwpA	Alignment	not modelled	11.0	PDB header: oxidoreductase Chain: A: PDB Molecule: glucose dehydrogenase; PDBTitle: haloferax mediterranei glucose dehydrogenase in complex with nadph and2 zn.
98	c3qf4A	Alignment	not modelled	10.8	PDB header: transport protein Chain: A: PDB Molecule: abc transporter, atp-binding protein; PDBTitle: crystal structure of a heterodimeric abc transporter in its inward-2 facing conformation
99	c3iz5U	Alignment	not modelled	10.7	PDB header: ribosome Chain: U: PDB Molecule: 60s ribosomal protein l21 (l21e); PDBTitle: localization of the large subunit ribosomal proteins into a 5.5 a2 cryo-em map of triticum aestivum translating 80s ribosome