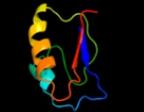
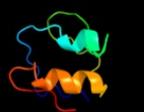
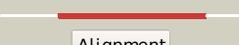
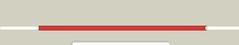
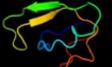
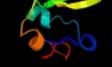
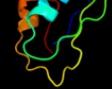


# Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P0AF59
Date	Thu Jan 5 11:25:17 GMT 2012
Unique Job ID	7a417989f1f4bd30

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	<a href="#">dlfxra_</a>	 Alignment		99.5	17	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Single 4Fe-4S cluster ferredoxin
2	<a href="#">dliqza_</a>	 Alignment		99.3	12	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Single 4Fe-4S cluster ferredoxin
3	<a href="#">dlsj1a_</a>	 Alignment		99.3	15	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Single 4Fe-4S cluster ferredoxin
4	<a href="#">cldw1A_</a>	 Alignment		99.2	16	<b>PDB header:</b> electron transfer <b>Chain:</b> A: <b>PDB Molecule:</b> ferredoxin i; <b>PDBTitle:</b> the ferredoxin-cytochrome complex using heteronuclear nmr2 and docking simulation
5	<a href="#">dlvjwa_</a>	 Alignment		99.1	24	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Single 4Fe-4S cluster ferredoxin
6	<a href="#">dlfxda_</a>	 Alignment		98.4	23	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Single 4Fe-4S cluster ferredoxin
7	<a href="#">clkqfB_</a>	 Alignment		97.7	21	<b>PDB header:</b> oxidoreductase <b>Chain:</b> B: <b>PDB Molecule:</b> formate dehydrogenase, nitrate-inducible, iron-sulfur <b>PDBTitle:</b> formate dehydrogenase n from e. coli
8	<a href="#">dlkqfb1</a>	 Alignment		97.7	21	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Ferredoxin domains from multidomain proteins
9	<a href="#">c1ti2F_</a>	 Alignment		97.6	10	<b>PDB header:</b> oxidoreductase <b>Chain:</b> F: <b>PDB Molecule:</b> pyrogallol hydroxytransferase small subunit; <b>PDBTitle:</b> crystal structure of pyrogallol-phloroglucinol2 transhydroxylase from pelobacter acidigallici
10	<a href="#">dlgtea5</a>	 Alignment		97.6	11	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Ferredoxin domains from multidomain proteins
11	<a href="#">c2vpyB_</a>	 Alignment		97.6	17	<b>PDB header:</b> oxidoreductase <b>Chain:</b> B: <b>PDB Molecule:</b> nrfc protein; <b>PDBTitle:</b> polysulfide reductase with bound quinone inhibitor, 2 pentachlorophenol (pcp)

12	<a href="#">d1xera_</a>	Alignment		97.4	20	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Archaeal ferredoxins
13	<a href="#">d2fug34</a>	Alignment		97.4	28	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Ferredoxin domains from multidomain proteins
14	<a href="#">c1gthD_</a>	Alignment		97.3	10	<b>PDB header:</b> oxidoreductase <b>Chain:</b> D: <b>PDB Molecule:</b> dihydropyrimidine dehydrogenase; <b>PDBTitle:</b> dihydropyrimidine dehydrogenase (dpd) from pig, ternary2 complex with nadph and 5-iodouracil
15	<a href="#">c3gyxl_</a>	Alignment		97.2	24	<b>PDB header:</b> oxidoreductase <b>Chain:</b> J: <b>PDB Molecule:</b> adenylsulfate reductase; <b>PDBTitle:</b> crystal structure of adenylysulfate reductase from2 desulfovibrio gigas
16	<a href="#">c1c4cA_</a>	Alignment		97.2	25	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> protein (fe-only hydrogenase); <b>PDBTitle:</b> binding of exogenously added carbon monoxide at the active2 site of the fe-only hydrogenase (cpi) from clostridium3 pasteurianum
17	<a href="#">c2fugC_</a>	Alignment		97.2	28	<b>PDB header:</b> oxidoreductase <b>Chain:</b> C: <b>PDB Molecule:</b> nadh-quinone oxidoreductase chain 3; <b>PDBTitle:</b> crystal structure of the hydrophilic domain of respiratory complex i2 from thermus thermophilus
18	<a href="#">d3c8ya3</a>	Alignment		97.2	20	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Ferredoxin domains from multidomain proteins
19	<a href="#">d1vlfn2</a>	Alignment		96.9	10	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Ferredoxin domains from multidomain proteins
20	<a href="#">d1jnrb_</a>	Alignment		96.9	16	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Ferredoxin domains from multidomain proteins
21	<a href="#">c2ivfB_</a>	Alignment	not modelled	96.8	15	<b>PDB header:</b> oxidoreductase <b>Chain:</b> B: <b>PDB Molecule:</b> ethylbenzene dehydrogenase beta-subunit; <b>PDBTitle:</b> ethylbenzene dehydrogenase from aromatoleum aromaticum
22	<a href="#">d1h0hb_</a>	Alignment	not modelled	96.8	14	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Ferredoxin domains from multidomain proteins
23	<a href="#">d2fug91</a>	Alignment	not modelled	96.6	14	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Ferredoxin domains from multidomain proteins
24	<a href="#">c2fugG_</a>	Alignment	not modelled	96.6	14	<b>PDB header:</b> oxidoreductase <b>Chain:</b> G: <b>PDB Molecule:</b> nadh-quinone oxidoreductase chain 9; <b>PDBTitle:</b> crystal structure of the hydrophilic domain of respiratory complex i2 from thermus thermophilus
25	<a href="#">c2c3yA_</a>	Alignment		96.5	29	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> pyruvate-ferredoxin oxidoreductase; <b>PDBTitle:</b> crystal structure of the radical form of2 pyruvate:ferredoxin oxidoreductase from desulfovibrio3 africanus
26	<a href="#">d1hfel2</a>	Alignment	not modelled	96.2	15	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Ferredoxin domains from multidomain proteins
27	<a href="#">d1jb0c_</a>	Alignment	not modelled	96.1	16	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> 7-Fe ferredoxin <b>PDB header:</b> hydrogenase

28	<a href="#">c1hfeL_</a>	Alignment	not modelled	96.1	15	<b>Chain:</b> L: <b>PDB Molecule:</b> protein (fe-only hydrogenase (e.c.1.18.99.1) <b>PDBTitle:</b> 1.6 a resolution structure of the fe-only hydrogenase from2 desulfovibrio desulfuricans
29	<a href="#">d1dura_</a>	Alignment	not modelled	96.0	17	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Short-chain ferredoxins
30	<a href="#">c1gx7A_</a>	Alignment	not modelled	95.7	17	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> periplasmic [fe] hydrogenase large subunit; <b>PDBTitle:</b> best model of the electron transfer complex between2 cytochrome c3 and [fe]-hydrogenase
31	<a href="#">c2fgoA_</a>	Alignment	not modelled	95.7	11	<b>PDB header:</b> electron transport <b>Chain:</b> A: <b>PDB Molecule:</b> ferredoxin; <b>PDBTitle:</b> structure of the 2[4fe-4s] ferredoxin from pseudomonas2 aeruginosa
32	<a href="#">c2zvsB_</a>	Alignment	not modelled	95.2	11	<b>PDB header:</b> electron transport <b>Chain:</b> B: <b>PDB Molecule:</b> uncharacterized ferredoxin-like protein yfh1; <b>PDBTitle:</b> crystal structure of the 2[4fe-4s] ferredoxin from escherichia coli
33	<a href="#">c2gmbA_</a>	Alignment	not modelled	95.2	19	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> electron transfer flavoprotein-ubiquinone <b>PDBTitle:</b> structure of porcine electron transfer flavoprotein-2 ubiquinone oxidoreductase in complexed with ubiquinone
34	<a href="#">d2fdna_</a>	Alignment	not modelled	94.7	15	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Short-chain ferredoxins
35	<a href="#">d1h98a_</a>	Alignment	not modelled	94.5	11	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> 7-Fe ferredoxin
36	<a href="#">d7fd1a_</a>	Alignment	not modelled	94.5	13	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> 7-Fe ferredoxin
37	<a href="#">c2v4jE_</a>	Alignment	not modelled	94.5	15	<b>PDB header:</b> oxidoreductase <b>Chain:</b> E: <b>PDB Molecule:</b> sulfite reductase, dissimilatory-type subunit <b>PDBTitle:</b> the crystal structure of desulfovibrio vulgaris2 dissimilatory sulfite reductase bound to dsrc provides3 novel insights into the mechanism of sulfate respiration
38	<a href="#">d1blua_</a>	Alignment	not modelled	94.4	11	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Short-chain ferredoxins
39	<a href="#">d1rgva_</a>	Alignment	not modelled	93.8	15	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Short-chain ferredoxins
40	<a href="#">c2v2kB_</a>	Alignment	not modelled	93.7	13	<b>PDB header:</b> electron transport <b>Chain:</b> B: <b>PDB Molecule:</b> ferredoxin; <b>PDBTitle:</b> the crystal structure of fdxa, a 7fe ferredoxin from2 mycobacterium smegmatis
41	<a href="#">d1y5ib1</a>	Alignment	not modelled	93.5	19	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Ferredoxin domains from multidomain proteins
42	<a href="#">d3c7bb1</a>	Alignment	not modelled	93.2	16	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Ferredoxin domains from multidomain proteins
43	<a href="#">d2c42a5</a>	Alignment	not modelled	92.7	25	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Ferredoxin domains from multidomain proteins
44	<a href="#">d1fcaa_</a>	Alignment	not modelled	92.6	15	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Short-chain ferredoxins
45	<a href="#">d2gmha3</a>	Alignment	not modelled	92.2	20	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> ETF-QO domain-like
46	<a href="#">c3c7bE_</a>	Alignment	not modelled	92.0	16	<b>PDB header:</b> oxidoreductase <b>Chain:</b> E: <b>PDB Molecule:</b> sulfite reductase, dissimilatory-type subunit beta; <b>PDBTitle:</b> structure of the dissimilatory sulfite reductase from archaeoglobus2 fulgidus
47	<a href="#">c3bk7A_</a>	Alignment	not modelled	91.0	23	<b>PDB header:</b> hydrolyase/translation <b>Chain:</b> A: <b>PDB Molecule:</b> abc transporter atp-binding protein; <b>PDBTitle:</b> structure of the complete abce1/rnaase-l inhibitor protein2 from pyrococcus abyssi
48	<a href="#">d1bc6a_</a>	Alignment	not modelled	90.4	21	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> 7-Fe ferredoxin
49	<a href="#">c2v4jA_</a>	Alignment	not modelled	85.1	10	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> sulfite reductase, dissimilatory-type subunit <b>PDBTitle:</b> the crystal structure of desulfovibrio vulgaris2 dissimilatory sulfite reductase bound to dsrc provides3 novel insights into the mechanism of sulfate respiration
50	<a href="#">c3c7bA_</a>	Alignment	not modelled	84.8	10	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> sulfite reductase, dissimilatory-type subunit alpha; <b>PDBTitle:</b> structure of the dissimilatory sulfite reductase from archaeoglobus2 fulgidus
51	<a href="#">d2v4jb1</a>	Alignment	not modelled	80.2	19	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Ferredoxin domains from multidomain proteins
52	<a href="#">d1clfa_</a>	Alignment	not modelled	75.2	21	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Short-chain ferredoxins

53	<a href="#">d2bs2b1</a>	Alignment	not modelled	48.2	25	<b>Fold:</b> Globin-like <b>Superfamily:</b> alpha-helical ferredoxin <b>Family:</b> Fumarate reductase/Succinate dehydrogenase iron-sulfur protein, C-terminal domain
54	<a href="#">d1kf6b1</a>	Alignment	not modelled	46.6	16	<b>Fold:</b> Globin-like <b>Superfamily:</b> alpha-helical ferredoxin <b>Family:</b> Fumarate reductase/Succinate dehydrogenase iron-sulfur protein, C-terminal domain
55	<a href="#">c1nekB_</a>	Alignment	not modelled	42.5	13	<b>PDB header:</b> oxidoreductase/electron transport <b>Chain:</b> B: <b>PDB Molecule:</b> succinate dehydrogenase iron-sulfur protein; <b>PDBTitle:</b> complex ii (succinate dehydrogenase) from e. coli with2 ubiquinone bound
56	<a href="#">c2bs2E_</a>	Alignment	not modelled	36.0	17	<b>PDB header:</b> oxidoreductase <b>Chain:</b> E: <b>PDB Molecule:</b> quinol-fumarate reductase iron-sulfur subunit b; <b>PDBTitle:</b> quinol:fumarate reductase from wolinella succinogenes
57	<a href="#">d1nekb1</a>	Alignment	not modelled	29.1	29	<b>Fold:</b> Globin-like <b>Superfamily:</b> alpha-helical ferredoxin <b>Family:</b> Fumarate reductase/Succinate dehydrogenase iron-sulfur protein, C-terminal domain
58	<a href="#">c2qwub_</a>	Alignment	not modelled	20.8	35	<b>PDB header:</b> cell invasion <b>Chain:</b> B: <b>PDB Molecule:</b> intracellular growth locus, subunit c; <b>PDBTitle:</b> crystal structure of f. tularensis pathogenicity island2 protein c
59	<a href="#">c3cf4A_</a>	Alignment	not modelled	19.3	20	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> acetyl-coa decarboxylase/synthase alpha subunit; <b>PDBTitle:</b> structure of the codh component of the m. barkeri acds complex
60	<a href="#">c2vdcl_</a>	Alignment	not modelled	17.4	21	<b>PDB header:</b> oxidoreductase <b>Chain:</b> I: <b>PDB Molecule:</b> glutamate synthase [nadh] small chain; <b>PDBTitle:</b> the 9.5 a resolution structure of glutamate synthase from2 cryo-electron microscopy and its oligomerization behavior3 in solution: functional implications.
61	<a href="#">c2b76N_</a>	Alignment	not modelled	14.2	21	<b>PDB header:</b> oxidoreductase <b>Chain:</b> N: <b>PDB Molecule:</b> fumarate reductase iron-sulfur protein; <b>PDBTitle:</b> e. coli quinol fumarate reductase frda e49q mutation
62	<a href="#">c2h89B_</a>	Alignment	not modelled	13.5	29	<b>PDB header:</b> oxidoreductase <b>Chain:</b> B: <b>PDB Molecule:</b> succinate dehydrogenase ip subunit; <b>PDBTitle:</b> avian respiratory complex ii with malonate bound
63	<a href="#">d3c7ba1</a>	Alignment	not modelled	13.3	14	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Ferredoxin domains from multidomain proteins
64	<a href="#">d2v4ja1</a>	Alignment	not modelled	11.0	11	<b>Fold:</b> Ferredoxin-like <b>Superfamily:</b> 4Fe-4S ferredoxins <b>Family:</b> Ferredoxin domains from multidomain proteins
65	<a href="#">c3d6rA_</a>	Alignment	not modelled	7.7	56	<b>PDB header:</b> viral protein <b>Chain:</b> A: <b>PDB Molecule:</b> non-structural protein 1; <b>PDBTitle:</b> structure of an avian influenza a virus ns1 protein2 effector domain
66	<a href="#">c2z8nB_</a>	Alignment	not modelled	6.1	14	<b>PDB header:</b> lyase <b>Chain:</b> B: <b>PDB Molecule:</b> 27.5 kda virulence protein; <b>PDBTitle:</b> structural basis for the catalytic mechanism of phosphothreonine lyase
67	<a href="#">d1ycya1</a>	Alignment	not modelled	5.8	28	<b>Fold:</b> Sm-like fold <b>Superfamily:</b> Sm-like ribonucleoproteins <b>Family:</b> PF1955-like
68	<a href="#">c1icfA_</a>	Alignment	not modelled	5.3	13	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> protein (cathepsin l: heavy chain); <b>PDBTitle:</b> crystal structure of mhc class ii associated p41 ii fragment in2 complex with cathepsin l
69	<a href="#">c3ktbD_</a>	Alignment	not modelled	5.3	38	<b>PDB header:</b> transcription regulator <b>Chain:</b> D: <b>PDB Molecule:</b> arsenical resistance operon trans-acting repressor; <b>PDBTitle:</b> crystal structure of arsenical resistance operon trans-acting2 repressor from bacteroides vulgatus atcc 8482