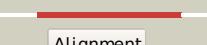
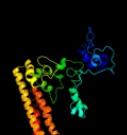
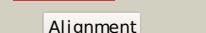
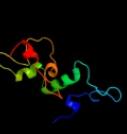
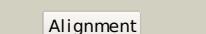
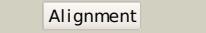
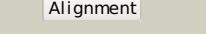
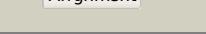
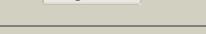
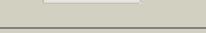
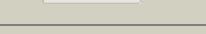
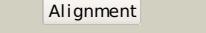
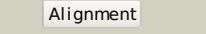


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P0ABK9
Date	Thu Jan 5 11:15:44 GMT 2012
Unique Job ID	54bd71ffca13f846

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1qdba_			100.0	47	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
2	d2rdza1			100.0	100	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
3	c2j7aE_			100.0	32	PDB header: oxidoreductase Chain: E: PDB Molecule: cytochrome c nitrite reductase nrfa; PDBTitle: crystal structure of cytochrome c nitrite reductase nrfa2 complex from desulfovibrio vulgaris
4	c1fs9A_			100.0	48	PDB header: oxidoreductase Chain: A: PDB Molecule: cytochrome c nitrite reductase; PDBTitle: cytochrome c nitrite reductase from wolinella succinogenes-azide2 complex
5	c2vr0A_			100.0	32	PDB header: oxidoreductase Chain: A: PDB Molecule: cytochrome c nitrite reductase, catalytic subunit nrfa; PDBTitle: crystal structure of cytochrome c nitrite reductase nrfa2 complex bound to the hqno inhibitor
6	d1fs7a_			100.0	48	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
7	d1oaha_			100.0	32	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
8	cloahA_			100.0	32	PDB header: reductase Chain: A: PDB Molecule: cytochrome c nitrite reductase; PDBTitle: cytochrome c nitrite reductase from desulfovibrio2 desulfuricans atcc 27774: the relevance of the two3 calcium sites in the structure of the catalytic subunit4 (nrfa).
9	c3f29A_			100.0	26	PDB header: oxidoreductase Chain: A: PDB Molecule: eight-heme nitrite reductase; PDBTitle: structure of the thioalkalivibrio nitratireducens2 cytochrome c nitrite reductase in complex with sulfite
10	d1fgja_			99.6	16	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
11	c1fgjA_			99.6	16	PDB header: oxidoreductase Chain: A: PDB Molecule: hydroxylamine oxidoreductase; PDBTitle: x-ray structure of hydroxylamine oxidoreductase

12	d1ft5a_			98.1	18	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
13	c2p0bA_			98.0	18	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c-type protein nrfb; PDBTitle: crystal structure of chemically-reduced e.coli nrfb
14	d1sp3a_			98.0	22	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
15	d1y0pa1			97.8	34	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
16	c3oueA_			97.7	21	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c family protein; PDBTitle: structure of c-terminal hexaheme fragment of gsu1996
17	c3ouqA_			97.6	15	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c family protein; PDBTitle: structure of n-terminal hexaheme fragment of gsu1996
18	c3ov0A_			97.4	18	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c family protein; PDBTitle: structure of dodecaheme cytochrome c gsu1996
19	d1qo8a1			97.1	28	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
20	d1d4ca1			96.9	29	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
21	c2j7aC_		not modelled	96.8	18	PDB header: oxidoreductase Chain: C: PDB Molecule: cytochrome c quinol dehydrogenase nrhf; PDBTitle: crystal structure of cytochrome c nitrite reductase nrhf2 complex from desulfovibrio vulgaris
22	d1m1qa_		not modelled	96.8	26	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
23	d1aea_		not modelled	96.8	26	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
24	c3pmqA_		not modelled	96.5	18	PDB header: electron transport Chain: A: PDB Molecule: decaheme cytochrome c mtrf; PDBTitle: crystal structure of the outer membrane decaheme cytochrome mtrf
25	d1duwa_		not modelled	96.4	15	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
26	c2e84A_		not modelled	96.3	20	PDB header: electron transport Chain: A: PDB Molecule: high-molecular-weight cytochrome c; PDBTitle: crystal structure of high-molecular weight cytochrome c2 from desulfovibrio vulgaris (miyazaki f) in the presence3 of zinc ion
27	c2k3vA_		not modelled	96.3	38	PDB header: electron transport Chain: A: PDB Molecule: tetrahaeme cytochrome c-type; PDBTitle: solution structure of a tetrahaem cytochrome from2 shewanella frigidimarina
28	c1leysC_		not modelled	95.9	16	PDB header: electron transport Chain: C: PDB Molecule: photosynthetic reaction center; PDBTitle: crystal structure of photosynthetic reaction center from a2 thermophilic bacterium, thermochromatium tepidum

29	d1eysc	Alignment	not modelled	95.9	16	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Photosynthetic reaction centre (cytochrome subunit)
30	d1ogyb	Alignment	not modelled	95.9	17	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
31	d1ofwa	Alignment	not modelled	95.8	15	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
32	c2bq4A	Alignment	not modelled	95.6	25	PDB header: electron transport Chain: A: PDB Molecule: basic cytochrome c3; PDBTitle: crystal structure of type i cytochrome c3 from2 desulfovibrio africanus
33	c2jbIC	Alignment	not modelled	95.2	17	PDB header: electron transport Chain: C: PDB Molecule: photosynthetic reaction center cytochrome c PDBTitle: photosynthetic reaction center from blastochloris viridis
34	d2i5nc1	Alignment	not modelled	95.2	17	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Photosynthetic reaction centre (cytochrome subunit)
35	c1z1nX	Alignment	not modelled	95.2	18	PDB header: electron transport Chain: X: PDB Molecule: sixteen heme cytochrome; PDBTitle: crystal structure of the sixteen heme cytochrome from desulfovibrio2 gigas
36	d19hca	Alignment	not modelled	95.2	13	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
37	d2cvca1	Alignment	not modelled	95.1	20	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
38	c2cvca	Alignment	not modelled	94.5	19	PDB header: electron transport Chain: A: PDB Molecule: high-molecular-weight cytochrome c precursor; PDBTitle: crystal structure of high-molecular weight cytochrome c2 from desulfovibrio vulgaris (hildenborough)
39	c3o5aB	Alignment	not modelled	93.0	25	PDB header: oxidoreductase Chain: B: PDB Molecule: diheme cytochrome c napb; PDBTitle: crystal structure of partially reduced periplasmic nitrate reductase2 from cupriavidus necator using ionic liquids
40	d1j0pa	Alignment	not modelled	92.3	27	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
41	d1i77a	Alignment	not modelled	92.0	22	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
42	d1jnja	Alignment	not modelled	91.8	29	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
43	c1jniA	Alignment	not modelled	91.8	29	PDB header: oxidoreductase Chain: A: PDB Molecule: diheme cytochrome c napb; PDBTitle: structure of the napb subunit of the periplasmic nitrate2 reductase from haemophilus influenzae.
44	c2a3mA	Alignment	not modelled	91.5	16	PDB header: electron transport Chain: A: PDB Molecule: cog3005: nitrate/tmao reductases, membrane-bound tetraheme PDBTitle: structure of desulfovibrio desulfuricans g20 tetraheme cytochrome2 (oxidized form)
45	d1gyoa	Alignment	not modelled	89.5	20	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
46	d1wada	Alignment	not modelled	89.2	16	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
47	c2c1dC	Alignment	not modelled	88.6	25	PDB header: oxidoreductase Chain: C: PDB Molecule: soxa; PDBTitle: crystal structure of soxsa from p. pantotrophus
48	c1qo8A	Alignment	not modelled	88.5	22	PDB header: oxidoreductase Chain: A: PDB Molecule: flavocytochrome c3 fumarate reductase; PDBTitle: the structure of the open conformation of a flavocytochrome2 c3 fumarate reductase
49	d2ctha	Alignment	not modelled	88.2	17	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
50	c3h4nB	Alignment	not modelled	88.0	26	PDB header: electron transport Chain: B: PDB Molecule: cytochrome c7; PDBTitle: ppcd, a cytochrome c7 from geobacter sulfurreducens
51	c1h32A	Alignment	not modelled	87.5	28	PDB header: electron transfer Chain: A: PDB Molecule: diheme cytochrome c; PDBTitle: reduced soxax complex from rhodovulum sulfidophilum
52	d1up9a	Alignment	not modelled	84.9	22	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
53	d2cy3a	Alignment	not modelled	84.4	15	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
54	c3h34A	Alignment	not modelled	81.8	20	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c7; PDBTitle: ppce, a cytochrome c7 from geobacter sulfurreducens
55	c1phvA	Alignment	not modelled	81.0	22	PDB header: oxidoreductase Chain: A: PDB Molecule: quinohemoprotein amine dehydrogenase 60 kda

55	c1puym	Alignment	not modelled	81.0	22	PDBTitle: structure of the phenylhydrazine adduct of the 2 quinohemoprotein amine dehydrogenase from paracoccus3 denitrificans at 1.7 a resolution
56	c1jmxA	Alignment	not modelled	80.3	24	PDB header: oxidoreductase Chain: A: PDB Molecule: amine dehydrogenase; PDBTitle: crystal structure of a quinohemoprotein amine dehydrogenase2 from pseudomonas putida
57	d3caoa	Alignment	not modelled	80.0	18	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
58	c3h33A	Alignment	not modelled	79.5	14	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c7; PDBTitle: ppcc, a cytochrome c7 from geobacter sulfurreducens
59	d1nmla1	Alignment	not modelled	74.7	10	Fold: Cytochrome c Superfamily: Cytochrome c Family: Di-heme cytochrome c peroxidase
60	c1jrxA	Alignment	not modelled	74.5	16	PDB header: oxidoreductase Chain: A: PDB Molecule: flavocytochrome c; PDBTitle: crystal structure of arg402ala mutant flavocytochrome c32 from shewanella frigidimarina
61	d1rwja	Alignment	not modelled	73.6	17	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
62	d1os6a	Alignment	not modelled	70.6	21	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
63	d1eb7a1	Alignment	not modelled	68.8	13	Fold: Cytochrome c Superfamily: Cytochrome c Family: Di-heme cytochrome c peroxidase
64	c2cluB	Alignment	not modelled	63.2	25	PDB header: oxidoreductase Chain: B: PDB Molecule: di-haem cytochrome c peroxidase; PDBTitle: crystal structure of the di-haem cytochrome c peroxidase2 from paracoccus pantotrophus - oxidised form
65	c1nmlA	Alignment	not modelled	62.9	21	PDB header: oxidoreductase Chain: A: PDB Molecule: di-haem cytochrome c peroxidase; PDBTitle: di-haemic cytochrome c peroxidase from pseudomonas nautica 617, form 2 in (ph 4.0)
66	c3o5cA	Alignment	not modelled	62.7	25	PDB header: oxidoreductase Chain: A: PDB Molecule: cytochrome c551 peroxidase; PDBTitle: cytochrome c peroxidase bcp of shewanella oneidensis
67	c3l4oB	Alignment	not modelled	62.6	13	PDB header: oxidoreductase/electron transport Chain: B: PDB Molecule: methylamine utilization protein maug; PDBTitle: crystal structure of the maug/pre-methylamine dehydrogenase complex2 after treatment with hydrogen peroxide
68	c1d4cB	Alignment	not modelled	62.6	23	PDB header: oxidoreductase Chain: B: PDB Molecule: flavocytochrome c fumarate reductase; PDBTitle: crystal structure of the uncomplexed form of the2 flavocytochrome c fumarate reductase of shewanella3 putrefaciens strain mr-1
69	d1iqca1	Alignment	not modelled	62.3	13	Fold: Cytochrome c Superfamily: Cytochrome c Family: Di-heme cytochrome c peroxidase
70	c3oa8A	Alignment	not modelled	62.0	21	PDB header: heme-binding protein/heme-binding protein Chain: A: PDB Molecule: soxa; PDBTitle: diheme soxax
71	c1iqcB	Alignment	not modelled	58.2	24	PDB header: oxidoreductase Chain: B: PDB Molecule: di-heme peroxidase; PDBTitle: crystal structure of di-heme peroxidase from nitrosomonas europaea
72	d1h21a	Alignment	not modelled	55.0	38	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
73	c1zzhA	Alignment	not modelled	54.4	30	PDB header: oxidoreductase Chain: A: PDB Molecule: cytochrome c peroxidase; PDBTitle: structure of the fully oxidized di-heme cytochrome c2 peroxidase from r. capsulatus
74	d1hh5a	Alignment	not modelled	52.7	20	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
75	d1h32a2	Alignment	not modelled	51.7	33	Fold: Cytochrome c Superfamily: Cytochrome c Family: Di-heme cytochrome c SoxA
76	d1h32a1	Alignment	not modelled	51.0	42	Fold: Cytochrome c Superfamily: Cytochrome c Family: Di-heme cytochrome c SoxA
77	d1wejf	Alignment	not modelled	50.0	35	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
78	d1co6a	Alignment	not modelled	48.2	32	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
79	d1lfma	Alignment	not modelled	47.7	35	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
80	d1pbya1	Alignment	not modelled	47.2	16	Fold: Cytochrome c Superfamily: Cytochrome c Family: Quinohemoprotein amine dehydrogenase A chain, domains 1 and 2
81	c2vhdB	Alignment	not modelled	46.7	17	PDB header: oxidoreductase Chain: B: PDB Molecule: cytochrome c551 peroxidase; PDBTitle: crystal structure of the di-haem cytochrome c peroxidase2 from pseudomonas aeruginosa - mixed valence form

82	d1yeba_		not modelled	46.0	30	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
83	d1j3sa_		not modelled	46.0	30	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
84	d1ytca_		not modelled	45.2	30	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
85	d3c2ca_		not modelled	45.1	32	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
86	c3hq7A_		not modelled	45.0	13	PDB header: oxidoreductase Chain: A: PDB Molecule: cytochrome c551 peroxidase; PDBTitle: ccpa from g. sulfurreducens, g94k/k97q/r100i variant
87	d1jdla_		not modelled	44.2	25	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
88	c1w2IA_		not modelled	44.2	22	PDB header: oxidoreductase Chain: A: PDB Molecule: cytochrome oxidase subunit ii; PDBTitle: cytochrome c domain of caa3 oxygen oxidoreductase
89	d1ycca_		not modelled	43.6	30	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
90	d1ccra_		not modelled	43.2	35	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
91	d1ynral_		not modelled	41.6	40	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
92	d351ca_		not modelled	40.0	40	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
93	c2zxyA_		not modelled	39.6	40	PDB header: oxygen binding, transport protein Chain: A: PDB Molecule: cytochrome c552; PDBTitle: crystal structure of cytochrome c555 from aquifex aeolicus
94	c2d0sA_		not modelled	39.6	40	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c; PDBTitle: crystal structure of the cytochrome c552 from moderate2 thermophilic bacterium, hydrogenophilus thermoluteolus
95	d1lmsa_		not modelled	39.3	32	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
96	c3b42B_		not modelled	38.9	16	PDB header: signaling protein Chain: B: PDB Molecule: methyl-accepting chemotaxis protein, putative; PDBTitle: periplasmic sensor domain of chemotaxis protein gsu0935
97	d1m70a2_		not modelled	38.0	23	Fold: Cytochrome c Superfamily: Cytochrome c Family: Two-domain cytochrome c
98	d1fcdc1_		not modelled	36.9	18	Fold: Cytochrome c Superfamily: Cytochrome c Family: Two-domain cytochrome c
99	d1nmla2_		not modelled	36.8	26	Fold: Cytochrome c Superfamily: Cytochrome c Family: Di-heme cytochrome c peroxidase
100	c3oa8B_		not modelled	36.5	25	PDB header: heme-binding protein/heme-binding protein Chain: B: PDB Molecule: soxx; PDBTitle: diheme soxax
101	d1jmxa1_		not modelled	35.9	14	Fold: Cytochrome c Superfamily: Cytochrome c Family: Quinohemoprotein amine dehydrogenase A chain, domains 1 and 2
102	d1h1oa2_		not modelled	35.5	13	Fold: Cytochrome c Superfamily: Cytochrome c Family: Two-domain cytochrome c
103	c2yiue_		not modelled	34.9	29	PDB header: oxidoreductase Chain: E: PDB Molecule: cytochrome c1, heme protein; PDBTitle: x-ray structure of the dimeric cytochrome bc1 complex from2 the soil bacterium paracoccus denitrificans at 2.73 angstrom resolution
104	d1fi3a_		not modelled	34.8	40	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
105	d1a56a_		not modelled	34.8	30	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
106	c2fynH_		not modelled	34.6	29	PDB header: oxidoreductase Chain: H: PDB Molecule: cytochrome c1; PDBTitle: crystal structure analysis of the double mutant rhodobacter2 sphaeroides bc1 complex
107	d1c53a_		not modelled	34.2	30	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
108	d1cora_		not modelled	33.6	40	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c

109	c2bpbB		Alignment	not modelled	33.2	15	PDB header: oxidoreductase Chain: B; PDB Molecule: sulfite\cytochrome c oxidoreductase subunit b; PDBTitle: sulfite dehydrogenase from starkeya novella
110	c3mk7B		Alignment	not modelled	32.3	36	PDB header: oxidoreductase Chain: B; PDB Molecule: cytochrome c oxidase, cbb3-type, subunit o; PDBTitle: the structure of cbb3 cytochrome oxidase
111	c1m70D		Alignment	not modelled	31.9	32	PDB header: electron transport Chain: D; PDB Molecule: cytochrome c4; PDBTitle: crystal structure of oxidized recombinant cytochrome c4 from2 pseudomonas stutzeri
112	c3o0rC		Alignment	not modelled	31.6	17	PDB header: immune system/oxidoreductase Chain: C; PDB Molecule: nitric oxide reductase subunit c; PDBTitle: crystal structure of nitric oxide reductase from pseudomonas2 aeruginosa in complex with antibody fragment
113	d1dvva		Alignment	not modelled	31.5	40	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
114	d1pbva2		Alignment	not modelled	29.6	22	Fold: Cytochrome c Superfamily: Cytochrome c Family: Quinohemoprotein amine dehydrogenase A chain, domains 1 and 2
115	d1gu2a		Alignment	not modelled	29.4	21	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
116	d1m70a1		Alignment	not modelled	28.9	32	Fold: Cytochrome c Superfamily: Cytochrome c Family: Two-domain cytochrome c
117	d1iqca2		Alignment	not modelled	28.8	21	Fold: Cytochrome c Superfamily: Cytochrome c Family: Di-heme cytochrome c peroxidase
118	d1kb0a1		Alignment	not modelled	28.0	25	Fold: Cytochrome c Superfamily: Cytochrome c Family: Quinoprotein alcohol dehydrogenase, C-terminal domain
119	c2w9kA		Alignment	not modelled	27.6	26	PDB header: electron transport Chain: A; PDB Molecule: cytochrome c; PDBTitle: crithidia fasciculata cytochrome c
120	d1dw0a		Alignment	not modelled	27.6	23	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c