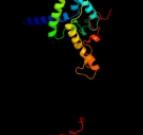
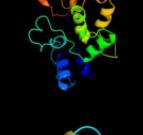
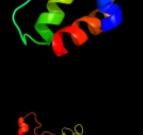
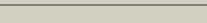
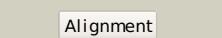
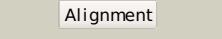
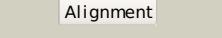
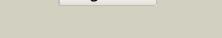
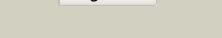
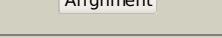


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P52005
Date	Thu Jan 5 12:04:53 GMT 2012
Unique Job ID	f6cb57de6d012571

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1fgj_a_			99.9	17	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
2	c1fgj_A_			99.9	17	PDB header: oxidoreductase Chain: A; PDB Molecule: hydroxylamine oxidoreductase; PDBTitle: x-ray structure of hydroxylamine oxidoreductase
3	c2j7aC_			99.9	27	PDB header: oxidoreductase Chain: C; PDB Molecule: cytochrome c quinol dehydrogenase nrhf; PDBTitle: crystal structure of cytochrome c nitrite reductase nrha2 complex from desulfovibrio vulgaris
4	d2rdza1			98.6	21	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
5	c2bpB_B_			98.6	17	PDB header: oxidoreductase Chain: B; PDB Molecule: sulfite</>cytochrome c oxidoreductase subunit b; PDBTitle: sulfite dehydrogenase from starkeya novella
6	d1sp3a_			98.5	18	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
7	d1fs7a_			98.4	17	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
8	c1fs9A_			98.4	17	PDB header: oxidoreductase Chain: A; PDB Molecule: cytochrome c nitrite reductase; PDBTitle: cytochrome c nitrite reductase from wolinella succinogenes-azide2 complex
9	c1oah_A_			98.4	16	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).
10	d1oah_a_			98.4	16	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
11	c2p0bA_			98.2	19	PDB header: electron transport Chain: A; PDB Molecule: cytochrome c-type protein nrfb; PDBTitle: crystal structure of chemically-reduced e.coli nrfb

12	d1pbya1			98.0	20	Fold: Cytochrome c Superfamily: Cytochrome c Family: Quinohemoprotein amine dehydrogenase A chain, domains 1 and 2
13	d1jmxa1			97.9	20	Fold: Cytochrome c Superfamily: Cytochrome c Family: Quinohemoprotein amine dehydrogenase A chain, domains 1 and 2
14	c3f29A_			97.8	22	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
15	c2vr0A_			97.7	28	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
16	c2fwta_			97.7	24	PDB header: electron transport Chain: A: PDB Molecule: dhc, diheme cytochrome c; PDBTitle: crystal structure of dhc purified from rhodobacter2 sphaerooides
17	c2j7aE_			97.6	29	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
18	d1qdba_			97.6	24	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
19	c3pmqA_			97.5	20	PDB header: electron transport Chain: A: PDB Molecule: decaheme cytochrome c mtrf; PDBTitle: crystal structure of the outer membrane decaheme cytochrome mtrf
20	d1ft5a_			97.5	18	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
21	c3ouea_		not modelled	97.0	18	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c family protein; PDBTitle: structure of c-terminal hexaheme fragment of gsu1996
22	d1mz4a_		not modelled	96.8	15	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
23	c2a3mA_		not modelled	96.7	35	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)
24	c1pbryA_		not modelled	96.6	22	PDB header: oxidoreductase Chain: A: PDB Molecule: quinohemoprotein amine dehydrogenase 60 kda PDBTitle: structure of the phenylhydrazine adduct of the2 quinohemoprotein amine dehydrogenase from paracoccus3 denitrificans at 1.7 a resolution
25	c1w5cT_		not modelled	96.5	15	PDB header: photosynthesis Chain: T: PDB Molecule: cytochrome c-550; PDBTitle: photosystem ii from thermosynechococcus elongatus
26	c3ouqA_		not modelled	96.5	21	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c family protein; PDBTitle: structure of n-terminal hexaheme fragment of gsu1996
27	d1f1ca_		not modelled	96.4	14	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
28	c1kb0A_		not modelled	96.3	25	PDB header: oxidoreductase Chain: A: PDB Molecule: quinohemoprotein alcohol dehydrogenase;

						PDBTitle: crystal structure of quinohemoprotein alcohol dehydrogenase from2 comamonas testosteroni
29	d1h9xa1	Alignment	not modelled	96.2	20	Fold: Cytochrome c Superfamily: Cytochrome c Family: N-terminal (heme c) domain of cytochrome cd1-nitrite reductase
30	c1jrxA_	Alignment	not modelled	96.2	29	PDB header: oxidoreductase Chain: A: PDB Molecule: flavocytochrome c; PDBTitle: crystal structure of arg402ala mutant flavocytochrome c32 from shewanella frigidimarina
31	c3cp5A_	Alignment	not modelled	96.2	25	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c; PDBTitle: cytochrome c from rhodothermus marinus
32	d1e29a_	Alignment	not modelled	96.2	13	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
33	c2zonG_	Alignment	not modelled	96.2	34	PDB header: oxidoreductase/electron transport Chain: G: PDB Molecule: cytochrome c551; PDBTitle: crystal structure of electron transfer complex of nitrite2 reductase with cytochrome c
34	d1nira1	Alignment	not modelled	96.1	19	Fold: Cytochrome c Superfamily: Cytochrome c Family: N-terminal (heme c) domain of cytochrome cd1-nitrite reductase
35	c2e84A_	Alignment	not modelled	96.0	18	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
36	d1e2rb1	Alignment	not modelled	96.0	23	Fold: Cytochrome c Superfamily: Cytochrome c Family: N-terminal (heme c) domain of cytochrome cd1-nitrite reductase
37	d1i77a_	Alignment	not modelled	95.9	36	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
38	d1d4ca1	Alignment	not modelled	95.9	24	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
39	c1jmxA_	Alignment	not modelled	95.8	27	PDB header: oxidoreductase Chain: A: PDB Molecule: amine dehydrogenase; PDBTitle: crystal structure of a quinohemoprotein amine dehydrogenase2 from pseudomonas putida
40	d1wada_	Alignment	not modelled	95.8	26	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
41	c1qo8A_	Alignment	not modelled	95.8	19	PDB header: oxidoreductase Chain: A: PDB Molecule: flavocytochrome c3 fumarate reductase; PDBTitle: the structure of the open conformation of a flavocytochrome2 c3 fumarate reductase
42	d1qo8a1	Alignment	not modelled	95.7	20	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
43	c1kv9A_	Alignment	not modelled	95.7	21	PDB header: oxidoreductase Chain: A: PDB Molecule: type ii quinohemoprotein alcohol dehydrogenase; PDBTitle: structure at 1.9 a resolution of a quinohemoprotein alcohol2 dehydrogenase from pseudomonas putida hk5
44	c2xtsD_	Alignment	not modelled	95.7	25	PDB header: oxidoreductase/electron transport Chain: D: PDB Molecule: cytochrome; PDBTitle: crystal structure of the sulfane dehydrogenase soxcd from paracoccus2 pantotrophus
45	d1j0pa_	Alignment	not modelled	95.6	34	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
46	c3a9fA_	Alignment	not modelled	95.5	22	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c; PDBTitle: crystal structure of the c-terminal domain of cytochrome cz2 from chlorobium tepidum
47	d1hzua1	Alignment	not modelled	95.4	22	Fold: Cytochrome c Superfamily: Cytochrome c Family: N-terminal (heme c) domain of cytochrome cd1-nitrite reductase
48	d1kv9a1	Alignment	not modelled	95.4	19	Fold: Cytochrome c Superfamily: Cytochrome c Family: Quinoprotein alcohol dehydrogenase, C-terminal domain
49	d1ls9a_	Alignment	not modelled	95.4	24	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
50	d2i5nc1	Alignment	not modelled	95.4	14	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Photosynthetic reaction centre (cytochrome subunit)
51	c2jblC_	Alignment	not modelled	95.4	14	PDB header: electron transport Chain: C: PDB Molecule: photosynthetic reaction center cytochrome c PDBTitle: photosynthetic reaction center from blastochloris viridis
52	c3dmIA_	Alignment	not modelled	95.3	30	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c6; PDBTitle: crystallization and structural analysis of cytochrome c62 from the diatom phaeodactylum tricornutum at 1.5 a3 resolution
53	d2ctha_	Alignment	not modelled	95.2	35	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
54	d1wvec1	Alignment	not modelled	95.2	20	Fold: Cytochrome c Superfamily: Cytochrome c

						Family: monodomain cytochrome c
55	d1kb0a1	Alignment	not modelled	95.1	14	Fold: Cytochrome c Superfamily: Cytochrome c Family: Quinoprotein alcohol dehydrogenase, C-terminal domain
56	d1qksa1	Alignment	not modelled	95.1	26	Fold: Cytochrome c Superfamily: Cytochrome c Family: N-terminal (heme c) domain of cytochrome cd1-nitrite reductase
57	d1ytca_	Alignment	not modelled	95.0	22	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
58	c2zooA_	Alignment	not modelled	94.9	18	PDB header: oxidoreductase Chain: A: PDB Molecule: probable nitrite reductase; PDBTitle: crystal structure of nitrite reductase from <i>pseudoalteromonas2 haloplanktis tac125</i>
59	d1ccra_	Alignment	not modelled	94.9	24	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
60	c2i4dA_	Alignment	not modelled	94.9	18	PDB header: electron transport Chain: A: PDB Molecule: sco1/senc family protein/cytochrome c; PDBTitle: cytochrome c domain of pp3183 protein from <i>pseudomonas putida</i>
61	d1yeba_	Alignment	not modelled	94.8	21	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
62	d1fcdc1	Alignment	not modelled	94.8	27	Fold: Cytochrome c Superfamily: Cytochrome c Family: Two-domain cytochrome c
63	d1ycca_	Alignment	not modelled	94.8	22	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
64	c1nnoA_	Alignment	not modelled	94.8	22	PDB header: oxidoreductase Chain: A: PDB Molecule: nitrite reductase; PDBTitle: conformational changes occurring upon no binding in nitrite2 reductase from <i>pseudomonas aeruginosa</i>
65	d1up9a_	Alignment	not modelled	94.7	31	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
66	d2gc4d1	Alignment	not modelled	94.7	25	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
67	d1ofwa_	Alignment	not modelled	94.7	27	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
68	d1c75a_	Alignment	not modelled	94.7	17	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
69	d1cyja_	Alignment	not modelled	94.7	22	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
70	d1hj3a1	Alignment	not modelled	94.7	22	Fold: Cytochrome c Superfamily: Cytochrome c Family: N-terminal (heme c) domain of cytochrome cd1-nitrite reductase
71	d1lfma_	Alignment	not modelled	94.7	25	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
72	c2d0wA_	Alignment	not modelled	94.6	18	PDB header: electron transport Chain: A: PDB Molecule: cytochrome cl; PDBTitle: crystal structure of cytochrome cl from <i>hyphomicrobium2 denitrificans</i>
73	d1dy7b1	Alignment	not modelled	94.6	24	Fold: Cytochrome c Superfamily: Cytochrome c Family: N-terminal (heme c) domain of cytochrome cd1-nitrite reductase
74	d1wejf_	Alignment	not modelled	94.6	19	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
75	c3dr0B_	Alignment	not modelled	94.5	22	PDB header: electron transport Chain: B: PDB Molecule: cytochrome c6; PDBTitle: structure of reduced cytochrome c6 from <i>synechococcus sp.2 pcc 7002</i>
76	d2cvca1	Alignment	not modelled	94.5	22	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
77	d1duwa_	Alignment	not modelled	94.5	22	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
78	c2w9kA_	Alignment	not modelled	94.5	27	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c; PDBTitle: crithidia fasciculata cytochrome c
79	d1ctja_	Alignment	not modelled	94.4	29	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
80	c2cvca_	Alignment	not modelled	94.4	23	PDB header: electron transport Chain: A: PDB Molecule: high-molecular-weight cytochrome c precursor; PDBTitle: crystal structure of high-molecular weight cytochrome c2 from <i>desulfovibrio vulgaris (hildenborough)</i>
						Fold: Cytochrome c

81	d1c52a_	Alignment	not modelled	94.4	23	Superfamily: Cytochrome c Family: monodomain cytochrome c
82	d2cy3a_	Alignment	not modelled	94.4	21	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
83	d1f1fa_	Alignment	not modelled	94.4	21	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
84	d1gyoa_	Alignment	not modelled	94.1	32	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
85	d1hrao_	Alignment	not modelled	94.1	16	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
86	d1y0pa1	Alignment	not modelled	94.1	22	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
87	c1w2IA_	Alignment	not modelled	94.1	23	PDB header: oxidoreductase Chain: A: PDB Molecule: cytochrome oxidase subunit ii; PDBTitle: cytochrome c domain of caa3 oxygen oxidoreductase
88	d1cc5a_	Alignment	not modelled	94.1	25	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
89	d1fcdc2	Alignment	not modelled	94.0	22	Fold: Cytochrome c Superfamily: Cytochrome c Family: Two-domain cytochrome c
90	d1j3sa_	Alignment	not modelled	94.0	25	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
91	c2v07A_	Alignment	not modelled	94.0	22	PDB header: photosynthesis Chain: A: PDB Molecule: cytochrome c6; PDBTitle: structure of the arabidopsis thaliana cytochrome c6a v52q2 variant
92	c2zxyA_	Alignment	not modelled	94.0	17	PDB header: oxygen binding, transport protein Chain: A: PDB Molecule: cytochrome c552; PDBTitle: crystal structure of cytochrome c555 from aquifex aeolicus
93	d2c8sa1	Alignment	not modelled	93.9	25	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
94	d1co6a_	Alignment	not modelled	93.9	24	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
95	d1aea_	Alignment	not modelled	93.9	18	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
96	c3o0rC_	Alignment	not modelled	93.8	24	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
97	c2zzsW_	Alignment	not modelled	93.8	26	PDB header: electron transport Chain: W: PDB Molecule: PDBTitle: crystal structure of cytochrome c554 from vibrio2 parahaemolyticus strain rimb2110633
98	d1cnoa_	Alignment	not modelled	93.8	28	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
99	d1kx7a_	Alignment	not modelled	93.7	24	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
100	c3cu4A_	Alignment	not modelled	93.7	28	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c family protein; PDBTitle: omcf, outer membrane cytochrome f from geobacter2 sulfurreducens
101	d1m1qa_	Alignment	not modelled	93.6	34	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Di-heme elbow motif
102	d1gdva_	Alignment	not modelled	93.6	21	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
103	d1h1oa2	Alignment	not modelled	93.5	13	Fold: Cytochrome c Superfamily: Cytochrome c Family: Two-domain cytochrome c
104	d1m70a1	Alignment	not modelled	93.3	26	Fold: Cytochrome c Superfamily: Cytochrome c Family: Two-domain cytochrome c
105	d1c6ra_	Alignment	not modelled	93.3	17	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
106	d1c53a_	Alignment	not modelled	93.1	29	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
107	cleysC_	Alignment	not modelled	92.9	22	PDB header: electron transport Chain: C: PDB Molecule: photosynthetic reaction center; PDBTitle: crystal structure of photosynthetic reaction center from a2 thermophilic bacterium, thermochromatium tepidum
108	d1leysc_	Alignment	not modelled	92.9	22	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes

					Family: Photosynthetic reaction centre (cytochrome subunit)
109	d19hca_	Alignment	not modelled	92.5	27 Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Cytochrome c3-like
110	c1z1nX_	Alignment	not modelled	92.3	17 PDB header: electron transport Chain: X: PDB Molecule: sixteen heme cytochrome; PDBTitle: crystal structure of the sixteen heme cytochrome from desulfovibrio2 gigas
111	d1c6sa_	Alignment	not modelled	92.0	17 Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
112	d1m70a2	Alignment	not modelled	92.0	28 Fold: Cytochrome c Superfamily: Cytochrome c Family: Two-domain cytochrome c
113	d1dvha_	Alignment	not modelled	91.8	29 Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
114	c1gq1B_	Alignment	not modelled	91.8	22 PDB header: oxidoreductase Chain: B: PDB Molecule: cytochrome cd1 nitrite reductase; PDBTitle: cytochrome cd1 nitrite reductase, y25s mutant, oxidised2 form
115	d1gksa_	Alignment	not modelled	91.8	24 Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
116	c1yiqA_	Alignment	not modelled	91.2	22 PDB header: oxidoreductase Chain: A: PDB Molecule: quinohemoprotein alcohol dehydrogenase; PDBTitle: molecular cloning and structural analysis of2 quinohemoprotein alcohol dehydrogenase adhiig from3 pseudomonas putida hk5. comparison to the other4 quinohemoprotein alcohol dehydrogenase adhiib found in the5 same microorganism.
117	c1fcfdD_	Alignment	not modelled	91.0	21 PDB header: electron transport(flavocytochrome) Chain: D: PDB Molecule: flavocytochrome c sulfide dehydrogenase PDBTitle: the structure of flavocytochrome c sulfide dehydrogenase2 from a purple phototrophic bacterium chromatium vinosum at 2.5 angstroms resolution
118	d1qn2a_	Alignment	not modelled	90.9	22 Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
119	c2d0sA_	Alignment	not modelled	90.6	31 PDB header: electron transport Chain: A: PDB Molecule: cytochrome c; PDBTitle: crystal structure of the cytochrome c552 from moderate2 thermophilic bacterium, hydrogenophilus thermoluteolus
120	c3m97X_	Alignment	not modelled	90.4	17 PDB header: electron transport Chain: X: PDB Molecule: cytochrome c-552; PDBTitle: structure of the soluble domain of cytochrome c552 with its flexible2 linker segment from paracoccus denitrificans