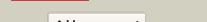


Phyre²

Email	I.a.kelley@imperial.ac.uk
Description	P76062
Date	Thu Jan 5 12:18:01 GMT 2012
Unique Job ID	8eb80402d4271792

Detailed template information

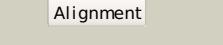
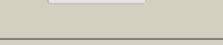
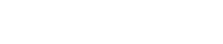
#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3bd1B_			96.5	28	PDB header: transcription Chain: B; PDB Molecule: cro protein; PDBTitle: structure of the cro protein from putative prophage element xfaso 1 in2 xylella fastidiosa strain ann-1
2	c3bdnB_			96.1	13	PDB header: transcription/dna Chain: B; PDB Molecule: lambda repressor; PDBTitle: crystal structure of the lambda repressor
3	c2fjrB_			95.8	24	PDB header: transcription regulator Chain: B; PDB Molecule: repressor protein ci; PDBTitle: crystal structure of bacteriophage 186
4	c2kpjA_			95.1	22	PDB header: transcription regulator Chain: A; PDB Molecule: sos-response transcriptional repressor, lexA; PDBTitle: solution structure of protein sos-response transcriptional2 repressor, lexA from eubacterium rectale. northeast3 structural genomics consortium target err9a
5	c3op9A_			94.8	14	PDB header: transcription regulator Chain: A; PDB Molecule: pli0006 protein; PDBTitle: crystal structure of transcriptional regulator from listeria innocua
6	c3dnvB_			93.9	11	PDB header: transcription/dna Chain: B; PDB Molecule: hth-type transcriptional regulator hipB; PDBTitle: mdt protein
7	d1r69a_			93.7	18	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
8	d1sq8a_			93.6	23	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
9	c3clcC_			93.1	9	PDB header: transcription regulator/dna Chain: C; PDB Molecule: regulatory protein; PDBTitle: crystal structure of the restriction-modification controller protein2 c.esp1396i tetramer in complex with its natural 35 base-pair operator
10	d2croa_			93.0	16	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
11	c3f52A_			92.9	21	PDB header: transcription activator Chain: A; PDB Molecule: clp gene regulator (clgr); PDBTitle: crystal structure of the clp gene regulator clgr from c. glutamicum

12	d1y9qa1			92.9	9	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Probable transcriptional regulator VC1968, N-terminal domain
13	d1llib_			92.9	13	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
14	d1b0na2			92.6	20	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: SinR domain-like
15	d2a6cal			92.4	15	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: NE1354
16	c2ef8A_			92.0	16	PDB header: transcription regulator Chain: A: PDB Molecule: putative transcription factor; PDBTitle: crystal structure of c.ecot38is
17	d2b5aa1			91.7	19	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: SinR domain-like
18	d1adra_			91.7	17	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
19	d1y7ya1			91.6	11	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: SinR domain-like
20	c3ivpD_			91.4	25	PDB header: dna binding protein Chain: D: PDB Molecule: putative transposon-related dna-binding protein; PDBTitle: the structure of a possible transposon-related dna-binding protein2 from clostridium difficile 630.
21	d1x57a1		not modelled	91.2	19	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: EDF1-like
22	c2o38A_		not modelled	90.5	19	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein; PDBTitle: putative xre family transcriptional regulator
23	d2o38a1		not modelled	90.5	19	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: NE1354
24	d1lmb3_		not modelled	90.5	13	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
25	c2elhA_		not modelled	90.3	30	PDB header: dna binding protein Chain: A: PDB Molecule: cg11849-pa; PDBTitle: solution structure of the centri-b n-terminal dna-binding2 domain of fruit fly distal antenna cg11849-pa PDB header: transcription Chain: A: PDB Molecule: putative antidote protein of plasmid maintenance system;
26	c3cecA_		not modelled	90.0	22	PDBTitle: crystal structure of a putative antidote protein of plasmid2 maintenance system (npun_f2943) from nostoc punctiforme pcc 73102 at 1.60 a resolution
27	d1rzsa_		not modelled	89.8	19	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
28	c2ewtA_		not modelled	89.3	17	PDB header: dna binding protein Chain: A: PDB Molecule: putative dna-binding protein; PDBTitle: crystal structure of the dna-binding domain of bldd

29	d2rlj1	Alignment	not modelled	89.2	18	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
30	c3b7hA	Alignment	not modelled	89.2	7	PDB header: structural protein Chain: A: PDB Molecule: prophage lp1 protein 11; PDBTitle: crystal structure of the prophage lp1 protein 11
31	c3omtA	Alignment	not modelled	88.2	11	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: putative antitoxin component, chu_2935 protein, from xre family from2 prevotella buccae.
32	c2xcjB	Alignment	not modelled	87.6	10	PDB header: viral protein Chain: B: PDB Molecule: c protein; PDBTitle: crystal structure of p2 c, the immunity repressor of2 temperate e. coli phage p2
33	c1b0nA	Alignment	not modelled	87.4	20	PDB header: transcription regulator Chain: A: PDB Molecule: protein (sinr protein); PDBTitle: sinr protein/sini protein complex
34	d1utxa	Alignment	not modelled	87.3	21	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: SinR domain-like
35	d1bw6a	Alignment	not modelled	86.8	24	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Centromere-binding
36	c3f6wE	Alignment	not modelled	86.2	9	PDB header: dna binding protein Chain: E: PDB Molecule: xre-family like protein; PDBTitle: xre-family like protein from pseudomonas syringae pv. tomato str.2 dc3000
37	c3eusB	Alignment	not modelled	86.2	9	PDB header: dna binding protein Chain: B: PDB Molecule: dna-binding protein; PDBTitle: the crystal structure of the dna binding protein from silicibacter2 pomeroyi
38	d2icta1	Alignment	not modelled	86.0	18	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: SinR domain-like
39	c3mlfC	Alignment	not modelled	85.3	19	PDB header: transcription regulator Chain: C: PDB Molecule: transcriptional regulator; PDBTitle: putative transcriptional regulator from staphylococcus aureus.
40	d1rioa	Alignment	not modelled	85.1	14	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
41	c3bs3A	Alignment	not modelled	84.8	19	PDB header: dna binding protein Chain: A: PDB Molecule: putative dna-binding protein; PDBTitle: crystal structure of a putative dna-binding protein from bacteroides2 fragilis
42	c1hlvA	Alignment	not modelled	83.9	24	PDB header: dna binding protein/dna Chain: A: PDB Molecule: major centromere autoantigen b; PDBTitle: crystal structure of cnp-b(1-129) complexed with the cnp-2 b box dna
43	c3t76A	Alignment	not modelled	82.9	13	PDB header: transcription regulator Chain: A: PDB Molecule: transcriptional regulator vanug; PDBTitle: crystal structure of transcriptional regulator vanug, form ii
44	d1hlva1	Alignment	not modelled	82.6	24	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Centromere-binding
45	c3k2zA	Alignment	not modelled	81.9	24	PDB header: hydrolase Chain: A: PDB Molecule: lexa repressor; PDBTitle: crystal structure of a lexa protein from thermotoga maritima
46	c2jvIA	Alignment	not modelled	81.4	21	PDB header: transcription Chain: A: PDB Molecule: rmbf1; PDBTitle: nmr structure of the c-terminal domain of mbf1 of trichoderma reesei
47	d1g3wa1	Alignment	not modelled	80.7	12	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Iron-dependent repressor protein
48	d1j9ia	Alignment	not modelled	79.8	26	Fold: Putative DNA-binding domain Superfamily: Putative DNA-binding domain Family: Terminase gpNU1 subunit domain
49	d2jn6a1	Alignment	not modelled	79.8	24	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Cgl2762-like
50	d2isyaa1	Alignment	not modelled	78.8	12	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Iron-dependent repressor protein
51	c3fmyA	Alignment	not modelled	76.5	18	PDB header: dna binding protein Chain: A: PDB Molecule: hth-type transcriptional regulator mqa; PDBTitle: structure of the c-terminal domain of the e. coli protein2 mqa (ygltb3021)
52	c3kxaD	Alignment	not modelled	76.2	19	PDB header: structural genomics, unknown function Chain: D: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of ngo0477 from neisseria gonorrhoeae
53	d2ev0a1	Alignment	not modelled	76.2	23	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Iron-dependent repressor protein
54	c1y9qA	Alignment	not modelled	74.1	11	PDB header: transcription regulator Chain: A: PDB Molecule: transcriptional regulator, hth_3 family; PDBTitle: crystal structure of hth_3 family transcriptional regulator2 from vibrio cholerae
55	c3trbA	Alignment	not modelled	72.0	22	PDB header: dna binding protein Chain: A: PDB Molecule: virulence-associated protein i; PDBTitle: structure of an addiction module antidote protein of a hiqa (hiqa)2 family from coxiella burnetii

56	c2ppxA	Alignment	not modelled	70.5	10	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein atu1735; PDBTitle: crystal structure of a hth xre-family like protein from agrobacterium2 tumefaciens
57	d2ppxa1	Alignment	not modelled	70.5	10	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: SinR domain-like
58	c3lisB	Alignment	not modelled	69.1	15	PDB header: transcription Chain: B: PDB Molecule: csp231i c protein; PDBTitle: crystal structure of the restriction-modification controller protein2 c.csp231i (monoclinic form)
59	c2wusR	Alignment	not modelled	68.8	9	PDB header: structural protein Chain: R: PDB Molecule: putative uncharacterized protein; PDBTitle: bacterial actin mreb assembles in complex with cell shape2 protein rodz
60	c2ebyA	Alignment	not modelled	66.6	16	PDB header: transcription Chain: A: PDB Molecule: putative hth-type transcriptional regulator ybaq; PDBTitle: crystal structure of a hypothetical protein from e. coli
61	c2bnoA	Alignment	not modelled	65.4	11	PDB header: oxidoreductase Chain: A: PDB Molecule: epoxidase; PDBTitle: the structure of hydroxypropylphosphonic acid epoxidase2 from s. wedmorensis.
62	d2ofya1	Alignment	not modelled	64.1	13	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: SinR domain-like
63	c6paxA	Alignment	not modelled	61.4	19	PDB header: gene regulation/dna Chain: A: PDB Molecule: homeobox protein pax-6; PDBTitle: crystal structure of the human pax-6 paired domain-dna2 complex reveals a general model for pax protein-dna3 interactions
64	c1u78A	Alignment	not modelled	58.5	19	PDB header: dna binding protein/dna Chain: A: PDB Molecule: transposable element tc3 transposase; PDBTitle: structure of the bipartite dna-binding domain of tc32 transposase bound to transposon dna
65	d1pdnc	Alignment	not modelled	58.3	18	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Paired domain
66	c3fymA	Alignment	not modelled	58.1	11	PDB header: dna binding protein Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: the 1a structure of yfmf, a putative dna-binding membrane2 protein from staphylococcus aureus
67	d3cta1	Alignment	not modelled	57.9	19	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: MarR-like transcriptional regulators
68	c2rn7A	Alignment	not modelled	55.6	14	PDB header: unknown function Chain: A: PDB Molecule: is629 orfa; PDBTitle: nmr solution structure of tpe protein from shigella2 flexneri. northeast structural genomics target sfr125
69	c2hinA	Alignment	not modelled	54.9	32	PDB header: transcription Chain: A: PDB Molecule: repressor protein; PDBTitle: structure of n15 cro at 1.05 a: an ortholog of lambda cro2 with a completely different but equally effective3 dimerization mechanism
70	d1jhfa1	Alignment	not modelled	54.7	18	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: LexA repressor, N-terminal DNA-binding domain
71	c1f5tA	Alignment	not modelled	52.2	15	PDB header: transcription/dna Chain: A: PDB Molecule: diphtheria toxin repressor; PDBTitle: diphtheria tox repressor (c102d mutant) complexed with nickel and dxr consensus binding sequence
72	d2coba1	Alignment	not modelled	51.9	13	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Psq domain
73	c2h09A	Alignment	not modelled	51.5	17	PDB header: transcription Chain: A: PDB Molecule: transcriptional regulator mntr; PDBTitle: crystal structure of diphtheria toxin repressor like protein2 from e. coli
74	c3gn5B	Alignment	not modelled	47.8	13	PDB header: dna binding protein Chain: B: PDB Molecule: hth-type transcriptional regulator mqsa (ygit/b3021); PDBTitle: structure of the e. coli protein mqsa (ygit/b3021)
75	c1g3wA	Alignment	not modelled	45.3	14	PDB header: gene regulation Chain: A: PDB Molecule: diphtheria toxin repressor; PDBTitle: cd-cys102ser dxr
76	d1d1la	Alignment	not modelled	44.2	22	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
77	d2cq4a1	Alignment	not modelled	43.8	24	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Lrp/AsnC-like transcriptional regulator N-terminal domain
78	d6paxa1	Alignment	not modelled	43.5	11	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like
79	d2cfxa1	Alignment	not modelled	42.1	26	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Lrp/AsnC-like transcriptional regulator N-terminal domain
80	c3ctaA	Alignment	not modelled	41.7	19	PDB header: transferase Chain: A: PDB Molecule: riboflavin kinase; PDBTitle: crystal structure of riboflavin kinase from thermoplasma2 acidophilum
81	d1zs4a1	Alignment	not modelled	38.3	26	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Bacteriophage CII protein
						Fold: lambda repressor-like DNA-binding domains

82	d4croa_	Alignment	not modelled	37.4	22	Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
83	d1nera_	Alignment	not modelled	37.1	15	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
84	c2x4hA_	Alignment	not modelled	36.4	20	PDB header: transcription Chain: A: PDB Molecule: hypothetical protein sso2273; PDBTitle: crystal structure of the hypothetical protein sso2273 from2 sulfolobus solfataricus
85	c2pijB_	Alignment	not modelled	36.3	17	PDB header: transcription Chain: B: PDB Molecule: prophage pfl 6 cro; PDBTitle: structure of the cro protein from prophage pfl 6 in pseudomonas2 fluorescens pf-5
86	c1fx7C_	Alignment	not modelled	34.1	14	PDB header: signaling protein Chain: C: PDB Molecule: iron-dependent repressor ider; PDBTitle: crystal structure of the iron-dependent regulator (ider)2 from mycobacterium tuberculosis
87	d3orca_	Alignment	not modelled	32.5	22	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
88	c2ao9H_	Alignment	not modelled	31.8	19	PDB header: structural genomics, unknown function Chain: H: PDB Molecule: phage protein; PDBTitle: structural genomics, the crystal structure of a phage protein2 (phbc6a51) from bacillus cereus atcc 14579
89	c2o8xA_	Alignment	not modelled	31.7	16	PDB header: transcription Chain: A: PDB Molecule: probable rna polymerase sigma-c factor; PDBTitle: crystal structure of the "-35 element" promoter recognition domain of2 mycobacterium tuberculosis sigc
90	d1jkva_	Alignment	not modelled	30.9	17	Fold: Ferritin-like Superfamily: Ferritin-like Family: Manganese catalase (T-catalase)
91	d1k78a1	Alignment	not modelled	30.4	11	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Paired domain
92	d1vz0a1	Alignment	not modelled	29.6	25	Fold: DNA/RNA-binding 3-helical bundle Superfamily: KorB DNA-binding domain-like Family: KorB DNA-binding domain-like
93	c2it0A_	Alignment	not modelled	27.9	14	PDB header: transcription/dna Chain: A: PDB Molecule: iron-dependent repressor ider; PDBTitle: crystal structure of a two-domain ider-dna complex crystal2 formii
94	d1or7a1	Alignment	not modelled	27.1	16	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma4 domain
95	d1xsva_	Alignment	not modelled	27.0	32	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Y1xm/p13-like
96	d1i1ga1	Alignment	not modelled	26.7	11	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Lrp/AsnC-like transcriptional regulator N-terminal domain
97	c3i4pA_	Alignment	not modelled	26.1	16	PDB header: transcription regulator Chain: A: PDB Molecule: transcriptional regulator, asnc family; PDBTitle: crystal structure of asnc family transcriptional regulator from2 agrobacterium tumefaciens
98	c3hefB_	Alignment	not modelled	25.8	18	PDB header: viral protein Chain: B: PDB Molecule: gene 1 protein; PDBTitle: crystal structure of the bacteriophage sf6 terminase small2 subunit
99	c2l4aA_	Alignment	not modelled	25.6	14	PDB header: dna binding protein Chain: A: PDB Molecule: leucine responsive regulatory protein; PDBTitle: nmr structure of the dna-binding domain of e.coli lrp
100	c2ev5B_	Alignment	not modelled	25.6	23	PDB header: transcription Chain: B: PDB Molecule: transcriptional regulator mntr; PDBTitle: bacillus subtilis manganese transport regulator (mntr)2 bound to calcium
101	d1qnta2	Alignment	not modelled	25.6	28	Fold: Ribonuclease H-like motif Superfamily: Methylated DNA-protein cysteine methyltransferase domain Family: Methylated DNA-protein cysteine methyltransferase domain
102	d1rp3a2	Alignment	not modelled	25.0	14	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma4 domain
103	c2cg4B_	Alignment	not modelled	24.7	24	PDB header: transcription Chain: B: PDB Molecule: regulatory protein asnc; PDBTitle: structure of e.coli asnc
104	d2cyya1	Alignment	not modelled	24.2	18	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Lrp/AsnC-like transcriptional regulator N-terminal domain
105	d2g7ga1	Alignment	not modelled	23.5	27	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Tetracyclin repressor-like, N-terminal domain
106	c3tgnA_	Alignment	not modelled	22.5	26	PDB header: transcription Chain: A: PDB Molecule: adc operon repressor adcr; PDBTitle: crystal structure of the zinc-dependent marr family transcriptional2 regulator adcr in the zn(ii)-bound state
107	d1xrsb2	Alignment	not modelled	22.3	35	Fold: Dodecin subunit-like Superfamily: D-lysine 5,6-aminomutase beta subunit KamE, N-terminal domain Family: D-lysine 5,6-aminomutase beta subunit KamE, N-terminal domain
108	c2k27A_	Alignment	not modelled	22.2	19	PDB header: transcription regulator Chain: A: PDB Molecule: paired box protein pax-8;

					PDBTitle: solution structure of human pax8 paired box domain
109	c3hugA		Alignment	not modelled	22.0
110	c2vbzA		Alignment	not modelled	21.2
111	c3gsvD		Alignment	not modelled	20.8
112	c1z4hA		Alignment	not modelled	20.3
113	d2vkeal		Alignment	not modelled	20.3
114	d3broa1		Alignment	not modelled	20.3
					PDB header: transcription/membrane protein Chain: A: PDB Molecule: RNA polymerase sigma factor; PDBTitle: crystal structure of mycobacterium tuberculosis anti-sigma factor rsl2 in complex with -35 promoter binding domain of sigl
					PDB header: dna-binding protein Chain: A: PDB Molecule: transcriptional regulatory protein; PDBTitle: feast or famine regulatory protein (rv3291c) from m.2 tuberculosis complexed with l-tryptophan
					PDB header: transcription/dna Chain: D: PDB Molecule: mothers against decapentaplegic homolog 4; PDBTitle: structural basis for dna recognition by constitutive smad4 mh1 dimers
					PDB header: protein binding, dna binding protein Chain: A: PDB Molecule: tor i inhibition protein; PDBTitle: the response regulator tori belongs to a new family of atypical excisionase
					Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Tetracyclin repressor-like, N-terminal domain
					Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: MarR-like transcriptional regulators