

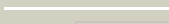







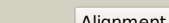

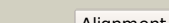

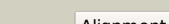




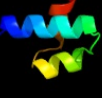







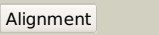
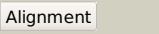
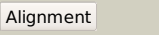
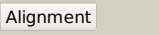
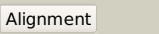
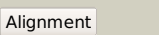
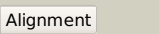
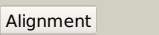
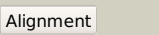
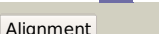
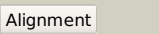
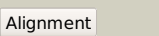
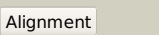
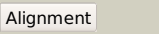
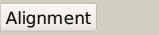
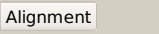
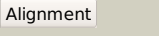
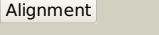
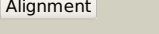
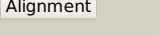
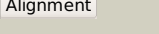
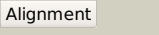
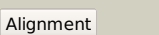
Phyre2

Email hurlibertj@winthrop.edu
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 Date Mon Jun 7 16:50:03 BST 2021
 Unique Job ID d378a2000e860cdb

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1k78a1	 Alignment		92.2	36	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Paired domain
2	d6paxa1	 Alignment		92.0	39	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Paired domain
3	d1mkma1	 Alignment		75.5	15	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Transcriptional regulator ICLR, N-terminal domain
4	c6paxA_	 Alignment		68.0	28	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
5	d1pdnc_	 Alignment		67.3	28	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Paired domain
6	c5whmB_	 Alignment		60.1	17	PDB header: transcription Chain: B: PDB Molecule: iclr family transcriptional regulator; PDBTitle: crystal structure of iclr family transcriptional regulator from2 brucella abortus
7	c2k27A_	 Alignment		59.7	26	PDB header: transcription regulator Chain: A: PDB Molecule: paired box protein pax-8; PDBTitle: solution structure of human pax8 paired box domain
8	c4i7hA_	 Alignment		53.2	16	PDB header: transcription Chain: A: PDB Molecule: peroxide stress sensing regulator; PDBTitle: structural basis for peroxide sensing and gene regulation by perr from2 streptococcus pyogenes
9	d1hlva1	 Alignment		50.3	24	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Centromere-binding
10	c2r0qF_	 Alignment		48.9	30	PDB header: recombination/dna Chain: F: PDB Molecule: putative transposon tn552 dna-invertase bin3; PDBTitle: crystal structure of a serine recombinase- dna regulatory2 complex
11	c2fe3B_	 Alignment		45.6	21	PDB header: dna binding protein Chain: B: PDB Molecule: peroxide operon regulator; PDBTitle: the crystal structure of bacillus subtilis perr-zn reveals a novel2 zn(cys)4 structural redox switch

12	c4m6fA_	Alignment		44.3	20	PDB header: hydrolase/dna Chain: A: PDB Molecule: dna-invertase; PDBTitle: dimer of the g-segment invertase bound to a dna substrate
13	c3fm5D_	Alignment		39.3	20	PDB header: transcription regulator Chain: D: PDB Molecule: transcriptional regulator; PDBTitle: x-ray crystal structure of transcriptional regulator (marr family)2 from rhodococcus sp. rha1
14	c3mwmA_	Alignment		36.5	33	PDB header: transcription Chain: A: PDB Molecule: putative metal uptake regulation protein; PDBTitle: graded expression of zinc-responsive genes through two regulatory2 zinc-binding sites in zur
15	c2o03A_	Alignment		36.5	23	PDB header: gene regulation Chain: A: PDB Molecule: probable zinc uptake regulation protein furb; PDBTitle: crystal structure of furb from m. tuberculosis- a zinc uptake2 regulator
16	c1u78A_	Alignment		35.9	15	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
17	c5fd6A_	Alignment		34.7	21	PDB header: transcription Chain: A: PDB Molecule: ferric uptake regulation protein; PDBTitle: zinc-bound manganese uptake regulator
18	c2elhA_	Alignment		33.4	17	PDB header: dna binding protein Chain: A: PDB Molecule: cg11849-pa; PDBTitle: solution structure of the cenp-b n-terminal dna-binding2 domain of fruit fly distal antenna cg11849-pa
19	c4fhtA_	Alignment		33.0	14	PDB header: transcription Chain: A: PDB Molecule: pcav transcriptional regulator; PDBTitle: crystal structure of the pcav transcriptional regulator from2 streptomyces coelicolor in complex with its natural ligand
20	d2fbha1	Alignment		31.3	30	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: MarR-like transcriptional regulators
21	c2xigA_	Alignment	not modelled	31.3	28	PDB header: transcription Chain: A: PDB Molecule: ferric uptake regulation protein; PDBTitle: the structure of the helicobacter pylori ferric uptake2 regulator fur reveals three functional metal binding sites
22	c5nl9B_	Alignment	not modelled	30.1	11	PDB header: dna binding protein Chain: B: PDB Molecule: transcriptional regulator (fur family); PDBTitle: crystal structure of a peroxide stress regulator from leptospira2 interrogans
23	c3j20Q_	Alignment	not modelled	30.1	29	PDB header: ribosome Chain: Q: PDB Molecule: 30s ribosomal protein s15p/s13e; PDBTitle: promiscuous behavior of proteins in archaeal ribosomes revealed by2 cryo-em: implications for evolution of eukaryotic ribosomes (30s3 ribosomal subunit)
24	c4razB_	Alignment	not modelled	28.1	26	PDB header: metal binding protein Chain: B: PDB Molecule: dna-binding transcriptional dual regulator of siderophore PDBTitle: crystal structure of magnetospirillum gryphiswaldense msr-1 holo-fur
25	c5z7iC_	Alignment	not modelled	28.1	28	PDB header: dna binding protein/dna Chain: C: PDB Molecule: cell cycle regulatory protein gcra; PDBTitle: caulobacter crescentus gcra dna-binding domain(dbd)in complex with2 unmethylated dsdna
26	c4mtdA_	Alignment	not modelled	27.1	23	PDB header: dna binding protein/dna Chain: A: PDB Molecule: zinc uptake regulation protein; PDBTitle: zinc uptake regulator complexed with zinc and dna
27	d1uxca_	Alignment	not modelled	25.4	21	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: GaIR/LacI-like bacterial regulator
28	c4hbA_	Alignment	not modelled	25.3	17	PDB header: transcription Chain: A: PDB Molecule: transcriptional regulator, marr family; PDBTitle: crystal structure of abfr of staphylococcus epidermidis

29	c3deuB	 Alignment	not modelled	25.2	18	PDB header: transcription regulator Chain: B: PDB Molecule: transcriptional regulator slya; PDBTitle: crystal structure of transcription regulatory protein slya from <i>Salmonella typhimurium</i> in complex with salicylate ligands
30	c6gh5M	 Alignment	not modelled	24.4	21	PDB header: transcription Chain: M: PDB Molecule: rna polymerase sigma-54 factor,rna polymerase sigma-54 PDBTitle: cryo-em structure of bacterial rna polymerase-sigma54 holoenzyme2 transcription open complex
31	c2fu4B	 Alignment	not modelled	24.0	26	PDB header: dna binding protein Chain: B: PDB Molecule: ferric uptake regulation protein; PDBTitle: crystal structure of the dna binding domain of <i>E. coli</i> Fur (ferric2 uptake regulator)
32	d1r71a	 Alignment	not modelled	23.8	13	Fold: DNA/RNA-binding 3-helical bundle Superfamily: KorB DNA-binding domain-like Family: KorB DNA-binding domain-like
33	c2fa5B	 Alignment	not modelled	22.7	21	PDB header: transcription Chain: B: PDB Molecule: transcriptional regulator marr/emrr family; PDBTitle: the crystal structure of an unliganded multiple antibiotic-2 resistance repressor (marr) from <i>Xanthomonas campestris</i>
34	c5w1eA	 Alignment	not modelled	22.5	19	PDB header: transcription Chain: A: PDB Molecule: putative transcriptional regulator; PDBTitle: pobr in complex with phb
35	c6u0iC	 Alignment	not modelled	22.2	20	PDB header: antitoxin Chain: C: PDB Molecule: antitoxin hcb3; PDBTitle: putative antitoxin hcb3 from <i>Escherichia coli</i> str. K-12 substr. DH10b
36	c1r71B	 Alignment	not modelled	21.9	16	PDB header: transcription/dna Chain: B: PDB Molecule: transcriptional repressor protein korb; PDBTitle: crystal structure of the dna binding domain of korb in complex with2 the operator dna
37	c5byhM	 Alignment	not modelled	21.1	21	PDB header: transferase Chain: M: PDB Molecule: rna polymerase sigma-54 factor; PDBTitle: crystal structure of <i>Escherichia coli</i> rna polymerase - sigma542 holoenzyme complex
38	d2ve8a1	 Alignment	not modelled	20.7	32	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: FtsK C-terminal domain-like
39	c5ui5l	 Alignment	not modelled	20.1	17	PDB header: transcription/dna Chain: I: PDB Molecule: rna polymerase sigma factor rpon; PDBTitle: crystal structure of aquifex aeolicus sigma bound to promoter dna
40	d2bv6a1	 Alignment	not modelled	19.9	16	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: MarR-like transcriptional regulators
41	c2qwwB	 Alignment	not modelled	19.7	15	PDB header: transcription Chain: B: PDB Molecule: transcriptional regulator, marr family; PDBTitle: crystal structure of multiple antibiotic-resistance repressor (marr)2 (yp_013417.1) from <i>Listeria monocytogenes</i> 4b f2365 at 2.07 Å resolution
42	c2gm4B	 Alignment	not modelled	19.5	26	PDB header: recombination, dna Chain: B: PDB Molecule: transposon gamma-delta resolvase; PDBTitle: an activated, tetrameric gamma-delta resolvase: hin chimera bound to2 cleaved dna
43	c3tgnA	 Alignment	not modelled	19.4	24	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
44	c4yifE	 Alignment	not modelled	19.3	16	PDB header: dna binding protein Chain: E: PDB Molecule: marr family protein rv0880; PDBTitle: crystal structure of rv0880
45	d3deua1	 Alignment	not modelled	18.1	18	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: MarR-like transcriptional regulators
46	c3bj6B	 Alignment	not modelled	17.8	24	PDB header: transcription regulator Chain: B: PDB Molecule: transcriptional regulator, marr family; PDBTitle: crystal structure of marr family transcription regulator sp03579
47	d1z91a1	 Alignment	not modelled	17.8	18	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: MarR-like transcriptional regulators
48	d2j5pa1	 Alignment	not modelled	17.7	29	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: FtsK C-terminal domain-like
49	d1mzba	 Alignment	not modelled	17.3	27	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: FUR-like
50	d2hr3a1	 Alignment	not modelled	17.0	15	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: MarR-like transcriptional regulators
51	c6pccA	 Alignment	not modelled	16.0	13	PDB header: dna binding protein Chain: A: PDB Molecule: marr family transcriptional regulator; PDBTitle: mechanism for regulation of dna binding of <i>Bordetella bronchiseptica</i> 2 bpsr by 6-hydroxynicotinic acid
52	d2hsga1	 Alignment	not modelled	15.8	25	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: GalR/LacI-like bacterial regulator
53	c3pvpA	 Alignment	not modelled	15.7	16	PDB header: dna binding protein/dna Chain: A: PDB Molecule: chromosomal replication initiator protein dnaa; PDBTitle: structure of <i>Mycobacterium tuberculosis</i> dnaa-dbd in complex with box22 dna
54	d1lcda	 Alignment	not modelled	15.6	38	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: GalR/LacI-like bacterial regulator

55	c4hrvB_	Alignment	not modelled	15.2	19	PDB header: lipid binding protein Chain: B: PDB Molecule: putative lipoprotein gna1162; PDBTitle: crystal structure of lipoprotein gna1162 from neisseria meningitidis
56	d1gdta1	Alignment	not modelled	15.1	23	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Recombinase DNA-binding domain
57	c5nwtM_	Alignment	not modelled	15.1	21	PDB header: transferase Chain: M: PDB Molecule: rna polymerase sigma-54 factor,rna polymerase sigma-54 PDBTitle: crystal structure of escherichia coli rna polymerase - sigma542 holoenzyme complex
58	c3izbO_	Alignment	not modelled	14.8	22	PDB header: ribosome Chain: O: PDB Molecule: 40s ribosomal protein rps13 (s15p); PDBTitle: localization of the small subunit ribosomal proteins into a 6.1 a2 cryo-em map of saccharomyces cerevisiae translating 80s ribosome
59	c3s2wB_	Alignment	not modelled	14.8	15	PDB header: transcription regulator Chain: B: PDB Molecule: transcriptional regulator, marr family; PDBTitle: the crystal structure of a marr transcriptional regulator from2 methanosarcina mazei go1
60	c2x4hA_	Alignment	not modelled	14.5	18	PDB header: transcription Chain: A: PDB Molecule: hypothetical protein sso2273; PDBTitle: crystal structure of the hypothetical protein sso2273 from2 sulfolobus solfataricus
61	c2l8nA_	Alignment	not modelled	14.2	28	PDB header: transcription regulator Chain: A: PDB Molecule: transcriptional repressor cytr; PDBTitle: nmr structure of the cytidine repressor dna binding domain in presence2 of operator half-site dna
62	c2lcvA_	Alignment	not modelled	13.8	28	PDB header: transcription regulator Chain: A: PDB Molecule: hth-type transcriptional repressor cytr; PDBTitle: structure of the cytidine repressor dna-binding domain; an alternate2 calculation
63	d1luxda_	Alignment	not modelled	13.7	21	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: GalR/LacI-like bacterial regulator
64	c4a5pC_	Alignment	not modelled	13.4	18	PDB header: protein transport Chain: C: PDB Molecule: protein mxia; PDBTitle: structure of the shigella flexneri mxia protein
65	d1l8qa1	Alignment	not modelled	13.3	26	Fold: DNA/RNA-binding 3-helical bundle Superfamily: TrpR-like Family: Chromosomal replication initiation factor DnaA C-terminal domain IV
66	c2nnnB_	Alignment	not modelled	13.3	15	PDB header: transcription Chain: B: PDB Molecule: probable transcriptional regulator; PDBTitle: crystal structure of probable transcriptional regulator from2 pseudomonas aeruginosa
67	c5zc2B_	Alignment	not modelled	12.8	10	PDB header: flavoprotein Chain: B: PDB Molecule: p-hydroxyphenylacetate 3-hydroxylase, reductase component; PDBTitle: acinetobacter baumannii p-hydroxyphenylacetate 3-hydroxylase (hpah),2 reductase component (c1)
68	c2pexA_	Alignment	not modelled	12.1	23	PDB header: transcription regulator Chain: A: PDB Molecule: transcriptional regulator ohrr; PDBTitle: structure of reduced c22s ohrr from xanthomonas campestris
69	c3eyyA_	Alignment	not modelled	12.0	26	PDB header: transport Chain: A: PDB Molecule: putative iron uptake regulatory protein; PDBTitle: structural basis for the specialization of nur, a nickel-2 specific fur homologue, in metal sensing and dna3 recognition
70	c3nrvC_	Alignment	not modelled	11.9	18	PDB header: transcription regulator Chain: C: PDB Molecule: putative transcriptional regulator (marr/emrr family); PDBTitle: crystal structure of marr/emrr family transcriptional regulator from2 acinetobacter sp. adp1
71	d1qpza1	Alignment	not modelled	11.9	21	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: GalR/LacI-like bacterial regulator
72	c3e6mD_	Alignment	not modelled	11.8	14	PDB header: transcription regulator Chain: D: PDB Molecule: marr family transcriptional regulator; PDBTitle: the crystal structure of a marr family transcriptional2 regulator from silicibacter pomeroyi dss.
73	c5jlsA_	Alignment	not modelled	11.8	8	PDB header: transcription Chain: A: PDB Molecule: adhesin competence repressor; PDBTitle: crystal structure of adhesin competence repressor (adcr) from2 streptococcus pyogenes (c-terminally his tagged)
74	c4etsB_	Alignment	not modelled	11.6	26	PDB header: metal binding protein Chain: B: PDB Molecule: ferric uptake regulation protein; PDBTitle: crystal structure of campylobacter jejuni ferric uptake regulator
75	d2bjca1	Alignment	not modelled	11.6	21	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: GalR/LacI-like bacterial regulator
76	c2krfB_	Alignment	not modelled	11.6	21	PDB header: transcription Chain: B: PDB Molecule: transcriptional regulatory protein coma; PDBTitle: nmr solution structure of the dna binding domain of competence protein2 a
77	c4q77B_	Alignment	not modelled	11.6	11	PDB header: dna binding protein Chain: B: PDB Molecule: hth-type transcriptional regulator rot; PDBTitle: crystal structure of rot, a global regulator of virulence genes in2 staphylococcus aureus
78	d1j1va_	Alignment	not modelled	11.3	19	Fold: DNA/RNA-binding 3-helical bundle Superfamily: TrpR-like Family: Chromosomal replication initiation factor DnaA C-terminal domain IV
79	c6nbhP_	Alignment	not modelled	10.9	29	PDB header: signaling protein Chain: P: PDB Molecule: long-acting parathyroid hormone analog; PDBTitle: cryo-em structure of parathyroid hormone receptor type 1 in complex2 with a long-acting parathyroid hormone analog and g

						protein
80	d1hsja1	Alignment	not modelled	10.6	8	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: MarR-like transcriptional regulators
81	c2l0eA	Alignment	not modelled	10.4	30	PDB header: membrane protein Chain: A: PDB Molecule: sodium/hydrogen exchanger 1; PDBTitle: structural and functional analysis of tm vi of the nhe1 isoform of the2 na+/h+ exchanger
82	c2rnjA	Alignment	not modelled	10.3	16	PDB header: transcription Chain: A: PDB Molecule: response regulator protein vvar; PDBTitle: nmr structure of the s. aureus vvar dna binding domain
83	d1p4xa2	Alignment	not modelled	10.2	10	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: MarR-like transcriptional regulators
84	c3zeyG	Alignment	not modelled	10.2	27	PDB header: ribosome Chain: G: PDB Molecule: 40s ribosomal protein s13, putative; PDBTitle: high-resolution cryo-electron microscopy structure of the trypanosoma2 brucei ribosome
85	c4nb5D	Alignment	not modelled	10.2	14	PDB header: dna binding protein Chain: D: PDB Molecule: dna binding protein; PDBTitle: crystal structure of a transcriptional regulator
86	c2w57A	Alignment	not modelled	9.9	30	PDB header: metal transport Chain: A: PDB Molecule: ferric uptake regulation protein; PDBTitle: crystal structure of the vibrio cholerae ferric uptake2 regulator (fur) reveals structural rearrangement of the3 dna-binding domains
87	c5eriA	Alignment	not modelled	9.8	13	PDB header: transcription Chain: A: PDB Molecule: marr family transcriptional regulator; PDBTitle: marr protein from peptoclostridium difficile da00132
88	d1efaa1	Alignment	not modelled	9.4	25	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: GalR/LacI-like bacterial regulator
89	d2a61a1	Alignment	not modelled	9.3	18	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: MarR-like transcriptional regulators
90	c4lu2A	Alignment	not modelled	9.1	39	PDB header: odorant-binding protein Chain: A: PDB Molecule: 10.7 kda salivary protein; PDBTitle: structure of ljm19
91	d1sfxa	Alignment	not modelled	9.1	26	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: TrmB-like
92	c5muul	Alignment	not modelled	9.0	23	PDB header: virus Chain: I: PDB Molecule: major outer capsid protein; PDBTitle: dsrna bacteriophage phi6 nucleocapsid
93	c2zi0B	Alignment	not modelled	8.9	31	PDB header: gene regulation/rna Chain: B: PDB Molecule: protein 2b; PDBTitle: crystal structure of tav2b/sirna complex
94	c2rdpA	Alignment	not modelled	8.7	18	PDB header: transcription Chain: A: PDB Molecule: putative transcriptional regulator marr; PDBTitle: the structure of a marr family protein from bacillus2 stearothermophilus
95	c6jqsA	Alignment	not modelled	8.7	13	PDB header: dna binding protein Chain: A: PDB Molecule: dna-binding response regulator; PDBTitle: structure of transcription factor, gere
96	c3boqB	Alignment	not modelled	8.5	17	PDB header: transcription regulator Chain: B: PDB Molecule: transcriptional regulator, marr family; PDBTitle: crystal structure of marr family transcriptional regulator from2 silicibacter pomeroyi
97	c3cz3B	Alignment	not modelled	8.5	31	PDB header: viral protein/rna Chain: B: PDB Molecule: protein 2b; PDBTitle: crystal structure of tomato aspermy virus 2b in complex with sirna
98	d2bmfa1	Alignment	not modelled	8.4	24	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RNA helicase
99	c5nbcD	Alignment	not modelled	8.3	23	PDB header: dna binding protein Chain: D: PDB Molecule: ferric uptake regulation protein; PDBTitle: structure of prokaryotic transcription factors