







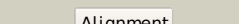

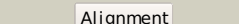

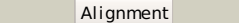



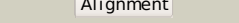

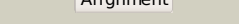

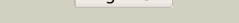
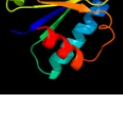





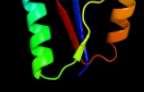
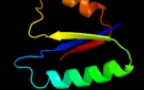




#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2kyrA_	 Alignment		100.0	44	PDB header: transferase Chain: A: PDB Molecule: fructose-like phosphotransferase enzyme iib component 1; PDBTitle: solution structure of enzyme iib subunit of pts system from2 escherichia coli k12. northeast structural genomics consortium target3 er315/ontario center for structural proteomics target ec0544
2	d2r48a1	 Alignment		100.0	42	Fold: Phosphotyrosine protein phosphatases I-like Superfamily: PTS system IIB component-like Family: PTS system, Fructose specific IIB subunit-like
3	d2r4qa1	 Alignment		100.0	42	Fold: Phosphotyrosine protein phosphatases I-like Superfamily: PTS system IIB component-like Family: PTS system, Fructose specific IIB subunit-like
4	c1tvmA_	 Alignment		97.4	20	PDB header: transferase Chain: A: PDB Molecule: pts system, galactitol-specific iib component; PDBTitle: nmr structure of enzyme gatb of the galactitol-specific2 phosphoenolpyruvate-dependent phosphotransferase system
5	d1iiba_	 Alignment		97.0	14	Fold: Phosphotyrosine protein phosphatases I-like Superfamily: PTS system IIB component-like Family: PTS system, Lactose/Cellobiose specific IIB subunit
6	d2a5la1	 Alignment		96.4	20	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: WrbA-like
7	d1vkra_	 Alignment		96.4	18	Fold: Phosphotyrosine protein phosphatases I-like Superfamily: PTS system IIB component-like Family: PTS system, Lactose/Cellobiose specific IIB subunit
8	c1vkra_	 Alignment		96.4	18	PDB header: transferase Chain: A: PDB Molecule: mannitol-specific pts system enzyme iiaabc components; PDBTitle: structure of iib domain of the mannitol-specific permease enzyme ii
9	c3czcA_	 Alignment		96.2	18	PDB header: transferase Chain: A: PDB Molecule: rmpb; PDBTitle: the crystal structure of a putative pts iib(ptxb) from2 streptococcus mutans
10	c2l2qa_	 Alignment		96.1	19	PDB header: transferase Chain: A: PDB Molecule: pts system, cellobiose-specific iib component (cela); PDBTitle: solution structure of cellobiose-specific phosphotransferase iib2 component protein from borrelia burgdorferi
11	c3nbmA_	 Alignment		95.6	15	PDB header: transferase Chain: A: PDB Molecule: pts system, lactose-specific iibc components; PDBTitle: the lactose-specific iib component domain structure of the2 phosphoenolpyruvate:carbohydrate phosphotransferase system (pts) from3 streptococcus pneumoniae.

12	dlydga_	Alignment		94.4	23	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: WrbA-like
13	d2arka1	Alignment		93.9	28	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: WrbA-like
14	dlycga1	Alignment		93.6	22	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Flavodoxin-related
15	d1qrda_	Alignment		93.5	30	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Quinone reductase
16	d1vmea1	Alignment		92.3	13	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Flavodoxin-related
17	c3fniA_	Alignment		91.4	18	PDB header: oxidoreductase Chain: A: PDB Molecule: putative diflavin flavoprotein a 3; PDBTitle: crystal structure of a diflavin flavoprotein a3 (all3895) from nostoc2 sp., northeast structural genomics consortium target nsr431a
18	c3p0rA_	Alignment		89.3	30	PDB header: oxidoreductase Chain: A: PDB Molecule: azoreductase; PDBTitle: crystal structure of azoreductase from bacillus anthracis str. Sterne
19	c3d7nA_	Alignment		86.6	25	PDB header: electron transport Chain: A: PDB Molecule: flavodoxin, wrba-like protein; PDBTitle: the crystal structure of the flavodoxin, wrba-like protein from2 agrobacterium tumefaciens
20	c2gi4A_	Alignment		85.7	29	PDB header: hydrolase Chain: A: PDB Molecule: possible phosphotyrosine protein phosphatase; PDBTitle: solution structure of the low molecular weight protein2 tyrosine phosphatase from campylobacter jejuni.
21	c2zkiH_	Alignment	not modelled	84.9	22	PDB header: transcription Chain: H: PDB Molecule: 199aa long hypothetical trp repressor binding PDBTitle: crystal structure of hypothetical trp repressor binding2 protein from sul folobus tokodaii (st0872)
22	c3rpeA_	Alignment	not modelled	84.4	23	PDB header: oxidoreductase Chain: A: PDB Molecule: modulator of drug activity b; PDBTitle: 1.1 angstrom crystal structure of putative modulator of drug activity2 (mdab) from yersinia pestis co92.
23	d1e5da1	Alignment	not modelled	84.0	17	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Flavodoxin-related
24	d1t5ba_	Alignment	not modelled	83.7	17	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Quinone reductase
25	c2ohiB_	Alignment	not modelled	83.6	17	PDB header: oxidoreductase Chain: B: PDB Molecule: type a flavoprotein fp4; PDBTitle: crystal structure of coenzyme f420h2 oxidase (fp4), a diiron2 flavoprotein, reduced state
26	c3b6iB_	Alignment	not modelled	80.3	23	PDB header: flavoprotein Chain: B: PDB Molecule: flavoprotein wrba; PDBTitle: wrba from escherichia coli, native structure
27	c1zggA_	Alignment	not modelled	79.0	37	PDB header: hydrolase Chain: A: PDB Molecule: putative low molecular weight protein-tyrosine- PDBTitle: solution structure of a low molecular weight protein2 tyrosine phosphatase from bacillus subtilis
28	c3f2vA_	Alignment	not modelled	78.4	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: general stress protein 14; PDBTitle: crystal structure of the general stress protein 142

					(tde0354) in complex with fmn from treponema denticola,3 northeast structural genomics consortium target tdr58.
29	c3rh0A_	Alignment	not modelled	77.9	15 PDB header: oxidoreductase Chain: A: PDB Molecule: arsenate reductase; PDBTitle: corynebacterium glutamicum mycothiol/mycoredoxin1-dependent arsenate2 reductase cg_arsc2
30	d2qwxal	Alignment	not modelled	75.3	25 Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Quinone reductase
31	c2v9cA_	Alignment	not modelled	73.4	32 PDB header: oxidoreductase Chain: A: PDB Molecule: fmn-dependent nadh-azoreductase 1; PDBTitle: x-ray crystallographic structure of a pseudomonas2 aeruginosa azoreductase in complex with methyl red.
32	c1vmeB_	Alignment	not modelled	68.5	11 PDB header: electron transport Chain: B: PDB Molecule: flavoprotein; PDBTitle: crystal structure of flavoprotein (tm0755) from thermotoga maritima at2 1.80 a resolution
33	c3fvwA_	Alignment	not modelled	66.0	19 PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative nad(p)h-dependent fmn reductase; PDBTitle: crystal structure of the q8dwd8_strmu protein from2 streptococcus mutans. northeast structural genomics3 consortium target smr99.
34	c2q62A_	Alignment	not modelled	62.2	17 PDB header: flavoprotein Chain: A: PDB Molecule: arsh; PDBTitle: crystal structure of arsh from sinorhizobium meliloti
35	c2wc1A_	Alignment	not modelled	59.3	22 PDB header: electron transport Chain: A: PDB Molecule: flavodoxin; PDBTitle: three-dimensional structure of the nitrogen fixation2 flavodoxin (niff) from rhodobacter capsulatus at 2.2 a
36	c3lcmB_	Alignment	not modelled	57.7	21 PDB header: oxidoreductase Chain: B: PDB Molecule: putative oxidoreductase; PDBTitle: crystal structure of smu.1420 from streptococcus mutans ua159
37	d1t0ba_	Alignment	not modelled	55.4	27 Fold: Flavodoxin-like Superfamily: Class I glutamine amidotransferase-like Family: ThuA-like
38	d1dxqa_	Alignment	not modelled	54.0	29 Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Quinone reductase
39	c3jviA_	Alignment	not modelled	52.5	11 PDB header: hydrolase Chain: A: PDB Molecule: protein tyrosine phosphatase; PDBTitle: product state mimic crystal structure of protein tyrosine phosphatase2 from entamoeba histolytica
40	d1rtta_	Alignment	not modelled	48.3	19 Fold: Flavodoxin-like Superfamily: Flavoproteins Family: NADPH-dependent FMN reductase
41	c3k9cA_	Alignment	not modelled	46.9	14 PDB header: transcription regulator Chain: A: PDB Molecule: transcriptional regulator, laci family protein; PDBTitle: crystal structure of laci transcriptional regulator from rhodococcus2 species.
42	c3snoA_	Alignment	not modelled	45.5	31 PDB header: transferase Chain: A: PDB Molecule: hypothetical aminotransferase; PDBTitle: crystal structure of a hypothetical aminotransferase (ncgl2491) from2 corynebacterium glutamicum atcc 13032 kitasato at 1.60 a resolution
43	c3klbA_	Alignment	not modelled	43.5	23 PDB header: flavoprotein Chain: A: PDB Molecule: putative flavoprotein; PDBTitle: crystal structure of putative flavoprotein in complex with fmn2 (yp_213683.1) from bacteroides fragilis nctc 9343 at 1.75 a3 resolution
44	d2z98a1	Alignment	not modelled	42.6	11 Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Quinone reductase
45	c2hvpA_	Alignment	not modelled	42.0	25 PDB header: oxidoreductase Chain: A: PDB Molecule: fmn-dependent nadh-azoreductase; PDBTitle: crystal structure of fmn-dependent azoreductase from enterococcus2 faecalis
46	c1ychD_	Alignment	not modelled	41.4	20 PDB header: oxidoreductase Chain: D: PDB Molecule: nitric oxide reductase; PDBTitle: x-ray crystal structures of moorella thermoacetica fpra.2 novel diiron site structure and mechanistic insights into3 a scavenging nitric oxide reductase
47	d1sqsa_	Alignment	not modelled	38.7	16 Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Hypothetical protein SP1951
48	d1k4ma_	Alignment	not modelled	37.9	19 Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidylyl transferase Family: Adenylyltransferase
49	d1acoa2	Alignment	not modelled	37.5	17 Fold: Aconitase iron-sulfur domain Superfamily: Aconitase iron-sulfur domain Family: Aconitase iron-sulfur domain
50	d1d1qa_	Alignment	not modelled	35.3	16 Fold: Phosphotyrosine protein phosphatases I-like Superfamily: Phosphotyrosine protein phosphatases I Family: Low-molecular-weight phosphotyrosine protein phosphatases
51	d2fz5a1	Alignment	not modelled	34.4	30 Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Flavodoxin-related
52	d1rqga2	Alignment	not modelled	32.5	26 Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidylyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
53	c5acnA_	Alignment	not modelled	30.2	17 PDB header: lyase(carbon-oxygen) Chain: A: PDB Molecule: aconitase;

53	c2cnaA	Alignment	not modelled	30.2	17	PDBTitle: structure of activated aconitase. formation of the (4fe-4s)2 cluster in the crystal PDB header: hydrolase Chain: A: PDB Molecule: low molecular weight phosphotyrosine protein phosphatase; PDBTitle: crystal structure of tt1001 protein from thermus thermophilus hb8
54	c2cwaA	Alignment	not modelled	29.5	32	PDB header: oxidoreductase Chain: B: PDB Molecule: arsenate reductase; PDBTitle: corynebacterium glutamicum thioredoxin-dependent arsenate reductase2 cg_arsc1'
55	c3t38B	Alignment	not modelled	29.1	18	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Flavodoxin-related
56	d5nula	Alignment	not modelled	28.9	19	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Flavodoxin-related
57	d1loboA	Alignment	not modelled	28.6	15	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Flavodoxin-related
58	c3h9gA	Alignment	not modelled	28.6	13	PDB header: transferase/antibiotic Chain: A: PDB Molecule: mccb protein; PDBTitle: crystal structure of e. coli mccb + mcca-n7isoasn
59	d1jf8a	Alignment	not modelled	27.5	8	Fold: Phosphotyrosine protein phosphatases I-like Superfamily: Phosphotyrosine protein phosphatases I Family: Low-molecular-weight phosphotyrosine protein phosphatases
60	d1vkna1	Alignment	not modelled	26.9	13	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain
61	c3hlyA	Alignment	not modelled	25.1	18	PDB header: flavoprotein Chain: A: PDB Molecule: flavodoxin-like domain; PDBTitle: crystal structure of the flavodoxin-like domain from2 synechococcus sp q5mzp6_syp6 protein. northeast structural3 genomics consortium target snr135d.
62	d1ja1a2	Alignment	not modelled	24.9	17	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Cytochrome p450 reductase N-terminal domain-like
63	d1b1ca	Alignment	not modelled	23.0	17	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Cytochrome p450 reductase N-terminal domain-like
64	c2l18A	Alignment	not modelled	23.0	18	PDB header: oxidoreductase Chain: A: PDB Molecule: arsenate reductase; PDBTitle: an arsenate reductase in the phosphate binding state
65	c2fzvC	Alignment	not modelled	22.8	11	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: putative arsenical resistance protein; PDBTitle: crystal structure of an apo form of a flavin-binding protein from2 shigella flexneri
66	c2q9uB	Alignment	not modelled	22.8	22	PDB header: oxidoreductase Chain: B: PDB Molecule: a-type flavoprotein; PDBTitle: crystal structure of the flavodiiiron protein from giardia2 intestinalis
67	c2hnbA	Alignment	not modelled	22.4	20	PDB header: electron transport Chain: A: PDB Molecule: protein mioc; PDBTitle: solution structure of a bacterial holo-flavodoxin
68	d1nj1a1	Alignment	not modelled	21.7	15	Fold: Anticodon-binding domain-like Superfamily: Class II aaRS ABD-related Family: Anticodon-binding domain of Class II aaRS
69	c3cqiD	Alignment	not modelled	21.3	14	PDB header: unknown function Chain: D: PDB Molecule: propanediol utilization protein pduu; PDBTitle: crystal structure of the pduu shell protein from the pdu2 microcompartment
70	d1gsaa1	Alignment	not modelled	20.8	28	Fold: PreATP-grasp domain Superfamily: PreATP-grasp domain Family: Prokaryotic glutathione synthetase, N-terminal domain
71	c3hrlA	Alignment	not modelled	20.6	17	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: endonuclease-like protein; PDBTitle: crystal structure of a putative endonuclease-like protein (ngo0050)2 from neisseria gonorrhoeae
72	c3djeA	Alignment	not modelled	19.8	15	PDB header: oxidoreductase Chain: A: PDB Molecule: fructosyl amine: oxygen oxidoreductase; PDBTitle: crystal structure of the deglycating enzyme fructosamine2 oxidase from aspergillus fumigatus (amadoriase ii) in3 complex with fsa
73	c1e5dA	Alignment	not modelled	19.8	17	PDB header: oxidoreductase Chain: A: PDB Molecule: rubredoxin: oxygen oxidoreductase; PDBTitle: rubredoxin oxygen:oxidoreductase (roo) from anaerobe2 desulfovibrio gigas
74	d1slma1	Alignment	not modelled	19.6	18	Fold: Flavodoxin-like Superfamily: Class I glutamine amidotransferase-like Family: Class I glutamine amidotransferases (GAT)
75	d1rlia	Alignment	not modelled	19.0	17	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Hypothetical protein YwqN
76	d2b3ya2	Alignment	not modelled	18.5	30	Fold: Aconitase iron-sulfur domain Superfamily: Aconitase iron-sulfur domain Family: Aconitase iron-sulfur domain
77	d1h05a	Alignment	not modelled	18.3	18	Fold: Flavodoxin-like Superfamily: Type II 3-dehydroquinate dehydratase Family: Type II 3-dehydroquinate dehydratase
78	c3chgB	Alignment	not modelled	17.9	36	PDB header: ligand binding protein Chain: B: PDB Molecule: glycine betaine-binding protein; PDBTitle: the compatible solute-binding protein opuac from bacillus2 subtilis in complex with dmsa
79	c3f6cl	Alignment	not modelled	17.6	20	PDB header: electron transport Chain: I: PDB Molecule: flavodoxin;

79	c3l0sl_	Alignment	not modelled	17.0	49	PDBTitle: desulfovibrio desulfuricans (atcc 29577) oxidized flavodoxin2 alternate conformers
80	d2f1da1	Alignment	not modelled	17.3	28	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Imidazole glycerol phosphate dehydratase
81	c1nj2A_	Alignment	not modelled	17.2	15	PDB header: ligase Chain: A: PDB Molecule: proline-trna synthetase; PDBTitle: crystal structure of prolyl-trna synthetase from methanothermobacter2 thermautotrophicus
82	d1d4aa_	Alignment	not modelled	17.0	27	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Quinone reductase
83	c3ia0c_	Alignment	not modelled	16.7	18	PDB header: structural protein Chain: C: PDB Molecule: ethanolamine utilization protein euts; PDBTitle: ethanolamine utilization microcompartment shell subunit,2 euts-g39v mutant
84	d1g3qa_	Alignment	not modelled	16.7	22	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nitrogenase iron protein-like
85	d1jw9b_	Alignment	not modelled	16.4	18	Fold: Activating enzymes of the ubiquitin-like proteins Superfamily: Activating enzymes of the ubiquitin-like proteins Family: Molybdenum cofactor biosynthesis protein MoeB
86	d1gqoa_	Alignment	not modelled	16.3	16	Fold: Flavodoxin-like Superfamily: Type II 3-dehydroquinate dehydratase Family: Type II 3-dehydroquinate dehydratase
87	c1nj8C_	Alignment	not modelled	16.2	12	PDB header: ligase Chain: C: PDB Molecule: proline-trna synthetase; PDBTitle: crystal structure of prolyl-trna synthetase from2 methanocaldococcus janaschii
88	c1vknC_	Alignment	not modelled	16.2	13	PDB header: oxidoreductase Chain: C: PDB Molecule: n-acetyl-gamma-glutamyl-phosphate reductase; PDBTitle: crystal structure of n-acetyl-gamma-glutamyl-phosphate reductase2 (tm1782) from thermotoga maritima at 1.80 a resolution
89	c1gqqA_	Alignment	not modelled	16.1	14	PDB header: cell wall biosynthesis Chain: A: PDB Molecule: udp-n-acetylmuramate-l-alanine ligase; PDBTitle: murc - crystal structure of the apo-enzyme from haemophilus2 influenzae
90	d1q6za1	Alignment	not modelled	15.9	12	Fold: DHS-like NAD/FAD-binding domain Superfamily: DHS-like NAD/FAD-binding domain Family: Pyruvate oxidase and decarboxylase, middle domain
91	d1iloa_	Alignment	not modelled	15.9	29	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
92	c2b3yB_	Alignment	not modelled	15.9	27	PDB header: lyase Chain: B: PDB Molecule: iron-responsive element binding protein 1; PDBTitle: structure of a monoclinic crystal form of human cytosolic aconitase2 (irp1)
93	d2fzva1	Alignment	not modelled	15.7	11	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: NADPH-dependent FMN reductase
94	c3cswB_	Alignment	not modelled	15.7	17	PDB header: transferase Chain: B: PDB Molecule: putative branched-chain-amino-acid aminotransferase; PDBTitle: crystal structure of a putative branched-chain amino acid2 aminotransferase (tm0831) from thermotoga maritima at 2.15 a3 resolution
95	c2ad5B_	Alignment	not modelled	15.7	20	PDB header: ligase Chain: B: PDB Molecule: ctp synthase; PDBTitle: mechanisms of feedback regulation and drug resistance of ctp2 synthetases: structure of the e. coli ctps/ctp complex at 2.8-3 angstrom resolution.
96	c2b76N_	Alignment	not modelled	15.6	16	PDB header: oxidoreductase Chain: N: PDB Molecule: fumarate reductase iron-sulfur protein; PDBTitle: e. coli quinol fumarate reductase frda e49q mutation
97	c2eq8C_	Alignment	not modelled	14.9	27	PDB header: oxidoreductase Chain: C: PDB Molecule: pyruvate dehydrogenase complex, dihydrolipoamide PDBTitle: crystal structure of lipoamide dehydrogenase from thermus thermophilus2 hb8 with psbdp
98	c1zj8B_	Alignment	not modelled	14.9	25	PDB header: oxidoreductase Chain: B: PDB Molecule: probable ferredoxin-dependent nitrite reductase nira; PDBTitle: structure of mycobacterium tuberculosis nira protein
99	d1y1la_	Alignment	not modelled	14.7	18	Fold: Phosphotyrosine protein phosphatases I-like Superfamily: Phosphotyrosine protein phosphatases I Family: Low-molecular-weight phosphotyrosine protein phosphatases