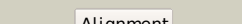
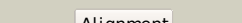
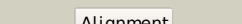
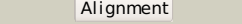
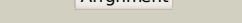
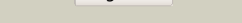
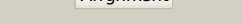


#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2j3mA_	 Alignment		100.0	46	PDB header: ligase Chain: A: PDB Molecule: prolyl-trna synthetase; PDBTitle: prolyl-trna synthetase from enterococcus faecalis complexed2 with atp, manganese and prolinol
2	c2i4lC_	 Alignment		100.0	51	PDB header: ligase Chain: C: PDB Molecule: proline-trna ligase; PDBTitle: rhodopseudomonas palustris prolyl-trna synthetase
3	c1ggmB_	 Alignment		100.0	20	PDB header: ligase Chain: B: PDB Molecule: protein (glycyl-trna synthetase); PDBTitle: glycyl-trna synthetase from thermus thermophilus complexed with2 glycyl-adenylate
4	c3ialB_	 Alignment		100.0	26	PDB header: ligase Chain: B: PDB Molecule: prolyl-trna synthetase; PDBTitle: giardia lamblia prolyl-trna synthetase in complex with prolyl-2 adenylate
5	c1nyqA_	 Alignment		100.0	23	PDB header: ligase Chain: A: PDB Molecule: threonyl-trna synthetase 1; PDBTitle: structure of staphylococcus aureus threonyl-trna synthetase2 complexed with an analogue of threonyl adenylate
6	c2pmfA_	 Alignment		100.0	20	PDB header: ligase Chain: A: PDB Molecule: glycyl-trna synthetase; PDBTitle: the crystal structure of a human glycyl-trna synthetase mutant
7	c1qf6A_	 Alignment		100.0	23	PDB header: ligase/rna Chain: A: PDB Molecule: threonyl-trna synthetase; PDBTitle: structure of e. coli threonyl-trna synthetase complexed with its2 cognate trna
8	c1atiA_	 Alignment		100.0	20	PDB header: protein biosynthesis Chain: A: PDB Molecule: glycyl-trna synthetase; PDBTitle: crystal structure of glycyl-trna synthetase from thermus thermophilus
9	c1nj8C_	 Alignment		100.0	27	PDB header: ligase Chain: C: PDB Molecule: proline-trna synthetase; PDBTitle: crystal structure of prolyl-trna synthetase from2 methanocaldococcus janaschii
10	c1h4tD_	 Alignment		100.0	25	PDB header: aminoacyl-trna synthetase Chain: D: PDB Molecule: prolyl-trna synthetase; PDBTitle: prolyl-trna synthetase from thermus thermophilus complexed2 with l-proline
11	c1nj2A_	 Alignment		100.0	28	PDB header: ligase Chain: A: PDB Molecule: proline-trna synthetase; PDBTitle: crystal structure of prolyl-trna synthetase from methanothermobacter2 thermotrophicus

12	c3a32A_	Alignment		100.0	18	PDB header: ligase Chain: A: PDB Molecule: probable threonyl-trna synthetase 1; PDBTitle: crystal structure of putative threonyl-trna synthetase2 thrss-1 from aeropyrum pernix
13	c1fyfB_	Alignment		100.0	23	PDB header: ligase Chain: B: PDB Molecule: threonyl-trna synthetase; PDBTitle: crystal structure of a truncated form of threonyl-trna2 synthetase complexed with a seryl adenylate analog
14	c3ikmC_	Alignment		100.0	18	PDB header: transferase Chain: C: PDB Molecule: dna polymerase subunit gamma-2; PDBTitle: crystal structure of human mitochondrial dna polymerase2 holoenzyme
15	c1g5hA_	Alignment		100.0	22	PDB header: dna binding protein Chain: A: PDB Molecule: mitochondrial dna polymerase accessory subunit; PDBTitle: crystal structure of the accessory subunit of murine mitochondrial2 polymerase gamma
16	c1adyA_	Alignment		100.0	18	PDB header: trna synthetase Chain: A: PDB Molecule: histidyl-trna synthetase; PDBTitle: histidyl-trna synthetase in complex with histidyl-adenylate
17	c2el9B_	Alignment		100.0	18	PDB header: ligase Chain: B: PDB Molecule: histidyl-trna synthetase; PDBTitle: crystal structure of e.coli histidyl-trna synthetase2 complexed with a histidyl-adenylate analogue
18	c1wu7A_	Alignment		100.0	19	PDB header: ligase Chain: A: PDB Molecule: histidyl-trna synthetase; PDBTitle: crystal structure of histidyl-trna synthetase from2 thermoplasma acidophilum
19	c3netB_	Alignment		100.0	18	PDB header: ligase Chain: B: PDB Molecule: histidyl-trna synthetase; PDBTitle: crystal structure of histidyl-trna synthetase from nostoc sp. pcc 7120
20	c3hriF_	Alignment		100.0	18	PDB header: ligase Chain: F: PDB Molecule: histidyl-trna synthetase; PDBTitle: histidyl-trna synthetase (apo) from trypanosoma brucei
21	c1qe0B_	Alignment	not modelled	100.0	27	PDB header: ligase Chain: B: PDB Molecule: histidyl-trna synthetase; PDBTitle: crystal structure of apo s. aureus histidyl-trna synthetase
22	d1nj1a3	Alignment	not modelled	100.0	25	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
23	d1nj8a3	Alignment	not modelled	100.0	24	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
24	c3od1A_	Alignment	not modelled	100.0	18	PDB header: transferase Chain: A: PDB Molecule: atp phosphoribosyltransferase regulatory subunit; PDBTitle: the crystal structure of an atp phosphoribosyltransferase regulatory2 subunit/histidyl-trna synthetase from bacillus halodurans c
25	d1qf6a4	Alignment	not modelled	100.0	21	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
26	d1hc7a2	Alignment	not modelled	100.0	20	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
27	d1nyra4	Alignment	not modelled	100.0	23	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
28	c2cj9A_	Alignment	not modelled	100.0	27	PDB header: ligase Chain: A: PDB Molecule: seryl-trna synthetase; PDBTitle: crystal structure of methanosarcina barkeri seryl-trna2

						synthetase complexed with an analog of seryladenylate
29	d1atia2	Alignment	not modelled	100.0	22	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
30	d1b76a2	Alignment	not modelled	100.0	22	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
31	d1seta2	Alignment	not modelled	100.0	22	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
32	c3mf2B_	Alignment	not modelled	100.0	17	PDB header: ligase Chain: B: PDB Molecule: blI0957 protein; PDBTitle: crystal structure of class ii aars homologue (blI0957) complexed with2 amp
33	c1wleB_	Alignment	not modelled	100.0	21	PDB header: ligase Chain: B: PDB Molecule: seryl-trna synthetase; PDBTitle: crystal structure of mammalian mitochondrial seryl-trna2 synthetase complexed with seryl-adenylate
34	c1sryB_	Alignment	not modelled	100.0	21	PDB header: ligase(synthetase) Chain: B: PDB Molecule: seryl-trna synthetase; PDBTitle: refined crystal structure of the seryl-trna synthetase from2 thermus thermophilus at 2.5 angstroms resolution
35	c3lssA_	Alignment	not modelled	100.0	22	PDB header: ligase Chain: A: PDB Molecule: seryl-trna synthetase; PDBTitle: trypanosoma brucei seryl-trna synthetase in complex with atp
36	c3qo8A_	Alignment	not modelled	100.0	23	PDB header: ligase Chain: A: PDB Molecule: seryl-trna synthetase, cytoplasmic; PDBTitle: crystal structure of seryl-trna synthetase from candida albicans
37	c2dq0A_	Alignment	not modelled	100.0	23	PDB header: ligase Chain: A: PDB Molecule: seryl-trna synthetase; PDBTitle: crystal structure of seryl-trna synthetase from pyrococcus2 horikoshii complexed with a seryl-adenylate analog
38	c2dq3A_	Alignment	not modelled	100.0	26	PDB header: ligase Chain: A: PDB Molecule: seryl-trna synthetase; PDBTitle: crystal structure of aq_298
39	c3errB_	Alignment	not modelled	100.0	22	PDB header: ligase Chain: B: PDB Molecule: fusion protein of microtubule binding domain from PDBTitle: microtubule binding domain from mouse cytoplasmic dynein as2 a fusion with seryl-trna synthetase
40	d1wu7a2	Alignment	not modelled	100.0	21	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
41	d1z7ma1	Alignment	not modelled	100.0	13	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
42	d1kmma2	Alignment	not modelled	100.0	17	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
43	d1g5ha2	Alignment	not modelled	100.0	25	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
44	c1z7nB_	Alignment	not modelled	100.0	14	PDB header: transferase Chain: B: PDB Molecule: atp phosphoribosyltransferase regulatory subunit; PDBTitle: atp phosphoribosyl transferase (hiszg atp-prtase) from2 lactococcus lactis with bound prpp substrate
45	c3racA_	Alignment	not modelled	100.0	15	PDB header: ligase Chain: A: PDB Molecule: histidine-trna ligase; PDBTitle: crystal strcuture of histidine--trna ligase subunit from2 alicyclobacillus acidocaldarius subsp. acidocaldarius dsm 446.
46	d1h4vb2	Alignment	not modelled	100.0	20	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
47	d2g4ca2	Alignment	not modelled	100.0	19	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
48	d1qe0a2	Alignment	not modelled	100.0	20	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
49	d1nj1a1	Alignment	not modelled	100.0	33	Fold: Anticodon-binding domain-like Superfamily: Class II aaRS ABD-related Family: Anticodon-binding domain of Class II aaRS
50	d1nj8a1	Alignment	not modelled	100.0	32	Fold: Anticodon-binding domain-like Superfamily: Class II aaRS ABD-related Family: Anticodon-binding domain of Class II aaRS
51	c3g1zB_	Alignment	not modelled	100.0	18	PDB header: ligase Chain: B: PDB Molecule: putative lysyl-trna synthetase; PDBTitle: structure of idp01693/yjea, a potential t-rna synthetase from2 salmonella typhimurium
52	d1usya_	Alignment	not modelled	100.0	16	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
53	d1bbua2	Alignment	not modelled	100.0	20	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain

80	c2rhqA	Alignment	not modelled	99.1	8	Chain: A: PDB Molecule: phenylalanyl-trna synthetase alpha chain; PDBTitle: phers from staphylococcus haemolyticus- rational protein2 engineering and inhibitor studies
81	c1efwA	Alignment	not modelled	99.1	19	PDB header: ligase/rna Chain: A: PDB Molecule: aspartyl-trna synthetase; PDBTitle: crystal structure of aspartyl-trna synthetase from thermus2 thermophilus complexed to trnaasp from escherichia coli
82	c2xgtB	Alignment	not modelled	99.1	22	PDB header: ligase Chain: B: PDB Molecule: asparaginyl-trna synthetase, cytoplasmic; PDBTitle: asparaginyl-trna synthetase from brugia malayi complexed2 with the sulphamoyl analogue of asparaginyl-adenylate
83	c1x55A	Alignment	not modelled	99.0	17	PDB header: ligase Chain: A: PDB Molecule: asparaginyl-trna synthetase; PDBTitle: crystal structure of asparaginyl-trna synthetase from pyrococcus2 horikoshii complexed with asparaginyl-adenylate analogue
84	c1b8aB	Alignment	not modelled	99.0	20	PDB header: ligase Chain: B: PDB Molecule: protein (aspartyl-trna synthetase); PDBTitle: aspartyl-trna synthetase
85	c1wydB	Alignment	not modelled	98.9	14	PDB header: ligase Chain: B: PDB Molecule: hypothetical aspartyl-trna synthetase; PDBTitle: crystal structure of aspartyl-trna synthetase from sulfobolus tokodaii
86	c3m4qA	Alignment	not modelled	98.9	16	PDB header: ligase Chain: A: PDB Molecule: asparaginyl-trna synthetase, putative; PDBTitle: entamoeba histolytica asparaginyl-trna synthetase (asnrs)
87	c2du4B	Alignment	not modelled	98.8	14	PDB header: ligase/rna Chain: B: PDB Molecule: o-phosphoseryl-trna synthetase; PDBTitle: crystal structure of archaeoglobus fulgidus o-phosphoseryl-2 trna synthetase complexed with trnacys
88	c3i7fA	Alignment	not modelled	98.8	16	PDB header: ligase Chain: A: PDB Molecule: aspartyl-trna synthetase; PDBTitle: aspartyl trna synthetase from entamoeba histolytica
89	c2du7C	Alignment	not modelled	98.6	14	PDB header: ligase Chain: C: PDB Molecule: o-phosphoseryl-trna synthetase; PDBTitle: crystal structure of methanococcus jannacshii o-phosphoseryl-trna2 synthetase
90	c1n9wA	Alignment	not modelled	98.5	19	PDB header: biosynthetic protein Chain: A: PDB Molecule: aspartyl-trna synthetase 2; PDBTitle: crystal structure of the non-discriminating and archaeal-2 type aspartyl-trna synthetase from thermus thermophilus
91	c3pcoC	Alignment	not modelled	98.5	9	PDB header: ligase Chain: C: PDB Molecule: phenylalanyl-trna synthetase, alpha subunit; PDBTitle: crystal structure of e. coli phenylalanine-trna synthetase complexed2 with phenylalanine and amp
92	c3ig2B	Alignment	not modelled	98.5	15	PDB header: ligase Chain: B: PDB Molecule: phenylalanyl-trna synthetase beta chain; PDBTitle: the crystal structure of a putative phenylalanyl-trna synthetase2 (phers) beta chain domain from bacteroides fragilis to 2.1a
93	d1v95a	Alignment	not modelled	98.4	15	Fold: Anticodon-binding domain-like Superfamily: Class II aaRS ABD-related Family: Anticodon-binding domain of Class II aaRS
94	c3icaB	Alignment	not modelled	98.4	13	PDB header: ligase Chain: B: PDB Molecule: phenylalanyl-trna synthetase beta chain; PDBTitle: the crystal structure of the beta subunit of a phenylalanyl-trna2 synthetase from porphyromonas gingivalis w83
95	c3l4gL	Alignment	not modelled	98.2	14	PDB header: ligase Chain: L: PDB Molecule: phenylalanyl-trna synthetase beta chain; PDBTitle: crystal structure of homo sapiens cytoplasmic phenylalanyl-trna2 synthetase
96	d1jjcb5	Alignment	not modelled	97.9	15	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
97	d1wdva	Alignment	not modelled	97.8	25	Fold: YbaK/ProRS associated domain Superfamily: YbaK/ProRS associated domain Family: YbaK/ProRS associated domain
98	d1n9wa2	Alignment	not modelled	97.7	25	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
99	c2rhsB	Alignment	not modelled	97.5	10	PDB header: ligase Chain: B: PDB Molecule: phenylalanyl-trna synthetase beta chain; PDBTitle: phers from staphylococcus haemolyticus- rational protein2 engineering and inhibitor studies
100	c2dxaA	Alignment	not modelled	97.4	18	PDB header: translation Chain: A: PDB Molecule: protein ybak; PDBTitle: crystal structure of trans editing enzyme prox from e.coli
101	d1dbxa	Alignment	not modelled	97.2	22	Fold: YbaK/ProRS associated domain Superfamily: YbaK/ProRS associated domain Family: YbaK/ProRS associated domain
102	d1vkia	Alignment	not modelled	97.1	19	Fold: YbaK/ProRS associated domain Superfamily: YbaK/ProRS associated domain Family: YbaK/ProRS associated domain
103	c2cx5B	Alignment	not modelled	97.1	26	PDB header: translation Chain: B: PDB Molecule: a putative trans-editing enzyme; PDBTitle: crystal structure of a putative trans-editing enzyme for2 prolyl trna synthetase
104	c3cmqA	Alignment	not modelled	96.6	17	PDB header: ligase Chain: A: PDB Molecule: phenylalanyl-trna synthetase, mitochondrial; PDBTitle: crystal structure of human mitochondrial phenylalanine

						trna2 synthetase
105	d1vjfa_	 Alignment	not modelled	96.1	17	Fold: YbaK/ProRS associated domain Superfamily: YbaK/ProRS associated domain Family: YbaK/ProRS associated domain
106	c3pcuD_	 Alignment	not modelled	96.1	12	PDB header: ligase Chain: D: PDB Molecule: phenylalanyl-trna synthetase, beta chain; PDBTitle: crystal structure of e. coli phenylalanine-trna synthetase complexed2 with phenylalanine and amp
107	c2akwB_	 Alignment	not modelled	95.9	15	PDB header: ligase Chain: B: PDB Molecule: phenylalanyl-trna synthetase beta chain; PDBTitle: crystal structure of t.thermophilus phenylalanyl-trna synthetase2 complexed with p-cl-phenylalanine
108	c3op6B_	 Alignment	not modelled	87.9	18	PDB header: unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of an oligo-nucleotide binding protein (lpg1207)2 from legionella pneumophila subsp. pneumophila str. philadelphia 1 at3 2.00 a resolution
109	d1mkza_	 Alignment	not modelled	79.5	11	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MogA-like
110	c3h16A_	 Alignment	not modelled	61.6	21	PDB header: signaling protein Chain: A: PDB Molecule: tir protein; PDBTitle: crystal structure of a bacteria tir domain, pdtir from2 paracoccus denitrificans
111	c1zejA_	 Alignment	not modelled	56.9	18	PDB header: oxidoreductase Chain: A: PDB Molecule: 3-hydroxyacyl-coa dehydrogenase; PDBTitle: crystal structure of the 3-hydroxyacyl-coa dehydrogenase (hbd-9,2 af2017) from archaeoglobus fulgidus dsm 4304 at 2.00 a resolution
112	c3pfnB_	 Alignment	not modelled	52.1	18	PDB header: transferase Chain: B: PDB Molecule: nad kinase; PDBTitle: crystal structure of human nad kinase
113	d1y5ea1	 Alignment	not modelled	46.9	13	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MogA-like
114	c3mogA_	 Alignment	not modelled	45.2	14	PDB header: oxidoreductase Chain: A: PDB Molecule: probable 3-hydroxybutyryl-coa dehydrogenase; PDBTitle: crystal structure of 3-hydroxybutyryl-coa dehydrogenase from2 escherichia coli k12 substr. mg1655
115	d1f0ya1	 Alignment	not modelled	40.9	15	Fold: 6-phosphogluconate dehydrogenase C-terminal domain-like Superfamily: 6-phosphogluconate dehydrogenase C-terminal domain-like Family: HCDH C-domain-like
116	d2cvba1	 Alignment	not modelled	39.7	15	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione peroxidase-like
117	c2is8A_	 Alignment	not modelled	35.0	19	PDB header: structural protein Chain: A: PDB Molecule: molybdopterin biosynthesis enzyme, moab; PDBTitle: crystal structure of the molybdopterin biosynthesis enzyme moab2 (ttha0341) from thermus thermophilus hb8
118	c3rfqC_	 Alignment	not modelled	28.4	8	PDB header: biosynthetic protein Chain: C: PDB Molecule: pterin-4-alpha-carbinolamine dehydratase moab2; PDBTitle: crystal structure of pterin-4-alpha-carbinolamine dehydratase moab22 from mycobacterium marinum
119	c3oziB_	 Alignment	not modelled	27.6	17	PDB header: plant protein Chain: B: PDB Molecule: l6tr; PDBTitle: crystal structure of the tir domain from the flax disease resistance2 protein l6
120	d1m5wa_	 Alignment	not modelled	27.4	15	Fold: TIM beta/alpha-barrel Superfamily: Pyridoxine 5'-phosphate synthase Family: Pyridoxine 5'-phosphate synthase