



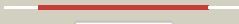

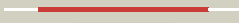






















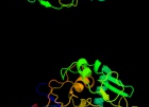



#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1nzja_	 Alignment		100.0	98	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
2	d1j09a2	 Alignment		100.0	35	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
3	c3a10C_	 Alignment		100.0	30	PDB header: ligase/rna Chain: C: PDB Molecule: glutamyl-trna(gln) amidotransferase subunit c, glutamyl- PDBTitle: crystal structure of the glutamine transamidosome from thermotoga2 maritima in the glutamylation state.
4	c2hz7A_	 Alignment		100.0	21	PDB header: ligase Chain: A: PDB Molecule: glutaminyl-trna synthetase; PDBTitle: crystal structure of the glutaminyl-trna synthetase from2 deinococcus radiodurans
5	c1exdA_	 Alignment		100.0	21	PDB header: ligase/rna Chain: A: PDB Molecule: glutaminyl-trna synthetase; PDBTitle: crystal structure of a tight-binding glutamine trna bound2 to glutamine aminoacyl trna synthetase
6	d1gtra2	 Alignment		100.0	19	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
7	c2cfoA_	 Alignment		100.0	34	PDB header: ligase Chain: A: PDB Molecule: glutamyl-trna synthetase; PDBTitle: non-discriminating glutamyl-trna synthetase from2 thermosynechococcus elongatus in complex with glu
8	c2ja2A_	 Alignment		100.0	30	PDB header: ligase Chain: A: PDB Molecule: glutamyl-trna synthetase; PDBTitle: mycobacterium tuberculosis glutamyl-trna synthetase
9	c3afhA_	 Alignment		100.0	33	PDB header: ligase Chain: A: PDB Molecule: glutamyl-trna synthetase 2; PDBTitle: crystal structure of thermotoga maritima nondiscriminating glutamyl-2 trna synthetase in complex with a glutamyl-amp analog
10	c3aiiA_	 Alignment		100.0	33	PDB header: ligase Chain: A: PDB Molecule: glutamyl-trna synthetase; PDBTitle: archaeal non-discriminating glutamyl-trna synthetase from2 methanothermobacter thermautotrophicus
11	c2o5rA_	 Alignment		100.0	31	PDB header: ligase Chain: A: PDB Molecule: glutamyl-trna synthetase 1; PDBTitle: crystal structure of glutamyl-trna synthetase 1 (ec 6.1.1.17)2 (glutamate-trna ligase 1) (glurs 1) (tm1351) from thermotoga maritima3 at 2.5 a resolution

12	c1g59A_	Alignment		100.0	34	PDB header: ligase/rna Chain: A: PDB Molecule: glutamyl-trna synthetase; PDBTitle: glutamyl-trna synthetase complexed with trna(glu).
13	c1lrxA_	Alignment		100.0	13	PDB header: ligase Chain: A: PDB Molecule: lysyl-trna synthetase; PDBTitle: crystal structure of class i lysyl-trna synthetase
14	d1f7ua2	Alignment		100.0	13	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
15	d1li5a2	Alignment		99.9	13	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
16	d2d5ba2	Alignment		99.9	19	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
17	c3sp1B_	Alignment		99.9	18	PDB header: ligase Chain: B: PDB Molecule: cysteinyI-trna synthetase; PDBTitle: crystal structure of cysteinyI-trna synthetase (cyss) from borrelia2 burgdorferi
18	d1pfva2	Alignment		99.9	11	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
19	c1u0bB_	Alignment		99.9	13	PDB header: ligase/rna Chain: B: PDB Molecule: cysteinyI trna; PDBTitle: crystal structure of cysteinyI-trna synthetase binary2 complex with trnacys
20	d1lrxa2	Alignment		99.8	14	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
21	c3c8zB_	Alignment	not modelled	99.8	14	PDB header: ligase Chain: B: PDB Molecule: cysteinyI-trna synthetase; PDBTitle: the 1.6 a crystal structure of mshc: the rate limiting2 enzyme in the mycothiol biosynthetic pathway
22	c3fnrA_	Alignment	not modelled	99.7	19	PDB header: transferase Chain: A: PDB Molecule: arginyl-trna synthetase; PDBTitle: crystal structure of putative arginyl t-rna synthetase from2 campylobacter jejuni;
23	c2x1lC_	Alignment	not modelled	99.7	18	PDB header: ligase Chain: C: PDB Molecule: methionyl-trna synthetase; PDBTitle: crystal structure of mycobacterium smegmatis methionyl-trna2 synthetase in complex with methionine and adenosine
24	c1woyA_	Alignment	not modelled	99.6	18	PDB header: ligase Chain: A: PDB Molecule: methionyl-trna synthetase; PDBTitle: crystal structure of methionyl trna synthetase y225f mutant2 from thermus thermophilus
25	c3tqoA_	Alignment	not modelled	99.6	13	PDB header: ligase Chain: A: PDB Molecule: cysteinyI-trna synthetase; PDBTitle: structure of the cysteinyI-trna synthetase (cyss) from coxiella2 burnetii.
26	c2ct8A_	Alignment	not modelled	99.6	14	PDB header: ligase/rna Chain: A: PDB Molecule: methionyl-trna synthetase; PDBTitle: crystal structure of aquifex aeolicus methionyl-trna2 synthetase complexed with trna(met) and methionyl-adenylate3 analogue
27	c1f7uA_	Alignment	not modelled	99.4	20	PDB header: ligase/rna Chain: A: PDB Molecule: arginyl-trna synthetase; PDBTitle: crystal structure of the arginyl-trna synthetase complexed with the2 trna(arg) and l-arg
28	c1pfuA_	Alignment	not modelled	99.3	16	PDB header: ligase Chain: A: PDB Molecule: methionyl-trna synthetase; PDBTitle: methionyl-trna synthetase from escherichia coli

					complexed2 with methionine phosphinate
29	c2zufA_	Alignment	not modelled	99.3	23 PDB header: ligase/rna Chain: A: PDB Molecule: arginyl-trna synthetase; PDBTitle: crystal structure of pyrococcus horikoshii arginyl-trna2 synthetase complexed with trna(arg)
30	dlivsa4	Alignment	not modelled	99.3	18 Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidylyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
31	dlilea3	Alignment	not modelled	99.3	17 Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidylyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
32	dliq0a2	Alignment	not modelled	99.2	18 Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidylyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
33	cliq0A_	Alignment	not modelled	99.1	18 PDB header: ligase Chain: A: PDB Molecule: arginyl-trna synthetase; PDBTitle: thermus thermophilus arginyl-trna synthetase
34	c2g36A_	Alignment	not modelled	99.0	18 PDB header: ligase Chain: A: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: crystal structure of tryptophanyl-trna synthetase (ec 6.1.1.2)2 (tryptophan-trna ligase)(trprs) (tm0492) from thermotoga maritima at3 2.50 a resolution
35	dlrqga2	Alignment	not modelled	99.0	17 Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidylyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
36	c3hzrD_	Alignment	not modelled	98.8	10 PDB header: ligase Chain: D: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: tryptophanyl-trna synthetase homolog from entamoeba histolytica
37	clrqgA_	Alignment	not modelled	98.8	22 PDB header: ligase Chain: A: PDB Molecule: methionyl-trna synthetase; PDBTitle: methionyl-trna synthetase from pyrococcus abyssi
38	c3kflA_	Alignment	not modelled	98.8	9 PDB header: ligase Chain: A: PDB Molecule: methionyl-trna synthetase; PDBTitle: leishmania major methionyl-trna synthetase in complex with2 methionyladenylate and pyrophosphate
39	c2j5bA_	Alignment	not modelled	98.8	20 PDB header: ligase Chain: A: PDB Molecule: tyrosyl-trna synthetase; PDBTitle: structure of the tyrosyl trna synthetase from acanthamoeba2 polyphaga mimivirus complexed with tyrosinol
40	c2cybA_	Alignment	not modelled	98.8	18 PDB header: ligase Chain: A: PDB Molecule: tyrosyl-trna synthetase; PDBTitle: crystal structure of tyrosyl-trna synthetase complexed with2 l-tyrosine from archaeoglobus fulgidus
41	c2cyaA_	Alignment	not modelled	98.7	18 PDB header: ligase Chain: A: PDB Molecule: tyrosyl-trna synthetase; PDBTitle: crystal structure of tyrosyl-trna synthetase from aeropyrum pernix
42	c3a05A_	Alignment	not modelled	98.7	21 PDB header: ligase Chain: A: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: crystal structure of tryptophanyl-trna synthetase from2 hyperthermophilic archaeon, aeropyrum pernix k1 complex3 with tryptophan
43	c3focB_	Alignment	not modelled	98.7	15 PDB header: ligase Chain: B: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: tryptophanyl-trna synthetase from giardia lamblia
44	dlffya3	Alignment	not modelled	98.6	17 Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidylyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
45	c3jxeB_	Alignment	not modelled	98.6	17 PDB header: ligase Chain: B: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: crystal structure of pyrococcus horikoshii tryptophanyl-trna2 synthetase in complex with trpamp
46	dlh3na3	Alignment	not modelled	98.6	26 Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidylyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
47	c2el7A_	Alignment	not modelled	98.5	17 PDB header: ligase Chain: A: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: crystal structure of tryptophanyl-trna synthetase from thermus2 thermophilus
48	dlh3fa1	Alignment	not modelled	98.4	18 Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidylyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
49	c3prhB_	Alignment	not modelled	98.4	19 PDB header: ligase Chain: B: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: tryptophanyl-trna synthetase val144pro mutant from b. subtilis
50	clgaxB_	Alignment	not modelled	98.3	26 PDB header: ligase/rna Chain: B: PDB Molecule: valyl-trna synthetase; PDBTitle: crystal structure of thermus thermophilus valyl-trna2 synthetase complexed with trna(val) and valyl-adenylate3 analogue
51	clwkbA_	Alignment	not modelled	98.3	26 PDB header: ligase Chain: A: PDB Molecule: leucyl-trna synthetase; PDBTitle: crystal structure of leucyl-trna synthetase from the2 archaeon pyrococcus horikoshii reveals a novel editing3 domain orientation
52	dli6la_	Alignment	not modelled	98.3	18 Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidylyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
53	c3m5wB_	Alignment	not modelled	98.2	17 PDB header: ligase Chain: B: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: crystal structure of tryptophanyl-trna synthetase from2 campylobacter jejuni
54	clwz2B_	Alignment	not modelled	98.2	26 PDB header: ligase/rna Chain: B: PDB Molecule: leucyl-trna synthetase;

80	c1r6uB_	Alignment	not modelled	96.9	16	Chain: B: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: crystal structure of an active fragment of human tryptophanyl-trna2 synthetase with cytokine activity
81	d1j1ua_	Alignment	not modelled	96.1	21	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
82	c2pidB_	Alignment	not modelled	86.1	18	PDB header: ligase Chain: B: PDB Molecule: tyrosyl-trna synthetase; PDBTitle: crystal structure of human mitochondrial tyrosyl-trna synthetase in2 complex with an adenylate analog
83	d1e5qa2	Alignment	not modelled	58.6	16	Fold: FwdE/GAPDH domain-like Superfamily: Glyceraldehyde-3-phosphate dehydrogenase-like, C-terminal domain Family: Homoserine dehydrogenase-like
84	d1aqua_	Alignment	not modelled	55.9	11	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: PAPS sulfotransferase
85	c2h8kA_	Alignment	not modelled	53.5	17	PDB header: transferase Chain: A: PDB Molecule: sult1c3 splice variant d; PDBTitle: human sulfotranferase sult1c3 in complex with pap
86	c1zd1B_	Alignment	not modelled	53.2	15	PDB header: transferase Chain: B: PDB Molecule: sulfotransferase 4a1; PDBTitle: human sulfortransferase sult4a1
87	d1gjjia2	Alignment	not modelled	50.6	36	Fold: LEM/SAP HeH motif Superfamily: LEM domain Family: LEM domain
88	d1r9oa_	Alignment	not modelled	48.9	9	Fold: Cytochrome P450 Superfamily: Cytochrome P450 Family: Cytochrome P450
89	c3guzB_	Alignment	not modelled	46.2	28	PDB header: ligase Chain: B: PDB Molecule: pantothenate synthetase; PDBTitle: structural and substrate-binding studies of pantothenate2 synthetase (ps)provide insights into homotropic inhibition3 by pantoate in ps's
90	c1q1qA_	Alignment	not modelled	43.3	17	PDB header: transferase Chain: A: PDB Molecule: sulfotransferase family, cytosolic, 2b, member 1 PDBTitle: crystal structure of human pregnenolone sulfotransferase2 (sult2b1a) in the presence of pap
91	c2r5wA_	Alignment	not modelled	41.8	25	PDB header: hydrolase, transferase Chain: A: PDB Molecule: nicotinamide-nucleotide adenyl transferase; PDBTitle: crystal structure of a bifunctional nmn2 adenyl transferase/adp ribose pyrophosphatase from3 francisella tularensis
92	d2a3ra1	Alignment	not modelled	38.5	19	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: PAPS sulfotransferase
93	c3ebsA_	Alignment	not modelled	36.1	11	PDB header: oxidoreductase Chain: A: PDB Molecule: cytochrome p450 2a6; PDBTitle: human cytochrome p450 2a6 i208s/i300f/g301a/s369g in complex2 with phenacetin
94	c1t6zB_	Alignment	not modelled	35.3	18	PDB header: transferase Chain: B: PDB Molecule: riboflavin kinase/fmn adenyl transferase; PDBTitle: crystal structure of riboflavin bound tm379
95	d3bfxa1	Alignment	not modelled	34.8	19	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: PAPS sulfotransferase
96	d1fmja_	Alignment	not modelled	34.5	13	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: PAPS sulfotransferase
97	c3u3oA_	Alignment	not modelled	32.7	19	PDB header: transferase Chain: A: PDB Molecule: sulfotransferase 1a1; PDBTitle: crystal structure of human sult1a1 bound to pap and two 3-cyano-7-2 hydroxycoumarin
98	d1ls6a_	Alignment	not modelled	30.9	19	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: PAPS sulfotransferase
99	d1xv1a_	Alignment	not modelled	30.9	13	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: PAPS sulfotransferase
100	c2zvpX_	Alignment	not modelled	29.2	17	PDB header: transferase Chain: X: PDB Molecule: tyrosine-ester sulfotransferase; PDBTitle: crystal structure of mouse cytosolic sulfotransferase msult1d1 complex2 with pap and p-nitrophenol
101	d1q20a_	Alignment	not modelled	28.6	17	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: PAPS sulfotransferase
102	c1vq0A_	Alignment	not modelled	27.9	27	PDB header: chaperone Chain: A: PDB Molecule: 33 kda chaperonin; PDBTitle: crystal structure of 33 kda chaperonin (heat shock protein 33 homolog)2 (hsp33) (tm1394) from thermotoga maritima at 2.20 a resolution
103	c1vzyA_	Alignment	not modelled	27.2	23	PDB header: chaperone Chain: A: PDB Molecule: 33 kda chaperonin; PDBTitle: crystal structure of the bacillus subtilis hsp33
104	d1xjha_	Alignment	not modelled	23.0	38	Fold: HSP33 redox switch-like Superfamily: HSP33 redox switch-like Family: HSP33 redox switch-like
						PDB header: transferase

105	c2gwhA_	<div>Alignment</div>	not modelled	22.5	19	Chain: A: PDB Molecule: sulfotransferase 1c2; PDBTitle: human sulfotranferase sult1c2 in complex with pap and2 pentachlorophenol
106	c2x0kB_	<div>Alignment</div>	not modelled	22.4	17	PDB header: transferase Chain: B: PDB Molecule: riboflavin biosynthesis protein ribf; PDBTitle: crystal structure of modular fad synthetase from2 corynebacterium ammoniagenes
107	d1xmpa_	<div>Alignment</div>	not modelled	21.2	13	Fold: Flavodoxin-like Superfamily: N5-CAIR mutase (phosphoribosylaminoimidazole carboxylase, PurE) Family: N5-CAIR mutase (phosphoribosylaminoimidazole carboxylase, PurE)
108	c2hq3A_	<div>Alignment</div>	not modelled	20.7	22	PDB header: metal transport Chain: A: PDB Molecule: nosI protein; PDBTitle: solution nmr structure of the apo-nosI protein from2 achromobacter cycloclastes