

Recombinant Human Threonyl-TRNA Synthetase, His-tagged

Cat. No. TARS-1936H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant humanTARS protein, fused to His-tag at N-terminus, was expressed in E.coli andpurified by using conventional chromatography techniques.
Species	Human
Source	E.coli
Description	TARS (Threonyl-tRNAsynthetase, cytoplasmic) belongs to the class-II aminoacyl-tRNA synthetasefamily. This protein has its main role in tRNA aminoacylation. The N-terminaldomain of the enzyme is responsible for the competition with the ribosomewhilst the catalytic and the C-terminal domain are involved in binding thetwo anticodon arm-like structures in the operator.
Form	Liquid. In 20mMTris-HCl buffer (pH 8.0) containing 2mM DTT, 20% glycerol, 150mM NaCl.
Molecular Weight	85.6kDa (743aa).
Purity	> 90% by SDS -PAGE.
Concentration	0.5mg/ml (determinedby Bradford assay).
Sequences of aminoacids	MGSSHHHHHHSSGLVPRGSH MFEEKASSPS GKMGGEEKPI GAGEEKQKEG GKKKNKEGSG DGGRAELNPW PEIYTRLEMYNILKAEHDS ILAEKAEKDS KPIKVTLPDG KQVDAESWKT TPYQIACGIS QGLADNTVIA

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KVNNVWDLDRPLEEDCTLE LLKFEDEEAQ AVYWHSSAHI MGEAMERVYG
 GCLCYGPPIE NGFYIDMYLE EGGVSSNDFSSLEALCKKII KEKQAFERLE
 VKKETLLAMF KYNKFKCRIL NEKVNTPTTT VYRCGPLIDL
 CRGPHVRHTGKIKALKIHKH SSTYWEGKAD METLQRIYGI SFPDPKMLKE
 WEKFQEEAKN RDHRKIGRDQ ELYFFHELSPGSCFFLPKGA YIYNALIEFI
 RSEYRKRGFQ EVVTPNIFNS RLWMTSGHWQ HYSENMFSE
 VEKELFALKPMNCPGHCLMF DHRPRSWREL PLRLADFGVL HRNELSGALT
 GLTRVRRFQQ DDAHIFCAME QIEDEIKGCLDFLRTVYSVF GFSFKLNLST
 RPEKFLGDIE VWDQAEKQLE NSLNEFGEKW ELNSGDGAFY
 GPKIDIQIKDAIGRYHQCAT IQLDFQLPIR FNLTYSVSHDG DDKKRPVIVH
 RAILGSVERM IAILTENYGG KWPFWLSRQVMVVPVGPTC DEYAQKVRQQ
 FHDAKFMADI DLDPGCTLNK KIRNAQLAQY NFILVGEKE
 KISGTVNIRTRDNKVHGERT ISETIERLQQ LKEFRSKQAE EEF

Storage

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

OfficialSymbol

TARS

Pathways

Aminoacyl-tRNA biosynthesis; Cytosolic tRNA aminoacylation; Gene Expression; tRNA Aminoacylation

GENE INFORMATION

Gene Name

TARS threonyl-tRNA synthetase [[Homo sapiens](#)]

Synonyms

TARS; threonyl-tRNA synthetase; ThrRS; threonyl-tRNA synthetase, cytoplasmic; threonine--tRNA ligase; threonine tRNA ligase 1, cytoplasmic

Gene ID

6897

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mRNA Refseq	NM_152295
Protein Refseq	NP_689508
MIM	187790
UniProt ID	P26639
Chromosome Location	5p13.2
Function	ATP binding; ligaseactivity; nucleotide binding; protein homodimerization activity;threonine-tRNA ligase activity
PDBrendering based on 1wwt.	

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