Recombinant human TARS1 protein

Catalog Number: ATGP1417

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-723aa

UniProt No.
P26639

NCBI Accession No.
NP_689508

Alternative Names
threonyl-tRNA synthetase cytoplasmic, threonyl-tRNA synthetase, cytoplasmic, ThrRS

PRODUCT SPECIFICATION

Molecular Weight
85.6 kDa (743aa)

Concentration
0.5mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 2mM DTT, 20% glycerol, 150mM NaCl

Purity
> 85% by SDS-PAGE

Tag
His-Tag

Application
SDS-PAGE

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description
TARS (Threonyl-tRNA synthetase, cytoplasmic) belongs to the class-II aminoacyl-tRNA synthetase family. This protein has its main role in tRNA aminoacylation. The N-terminal domain of the enzyme is responsible for the competition with the ribosome whilst the catalytic and the C-terminal domain are involved in binding the two anticodon arm-like structures in the operator. Recombinant human TARS protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

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Amino acid Sequence

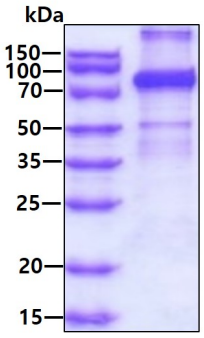
<MGSSHHHHHH SSGLVPRGSH> MFEEKASSPS GKMGGEEKPI GAGEEKQKEG GKKKNKEGSG DGGRAELNPW PEYIYTRLEM YNILKAEHDS ILAEKAEKDS KPIKVTLPDG KQVDAESWKT TPYQIACGIS QGLADNTVIA KVNNVVWDLD RPLEEDCTLE LLKFEDEEAQ AVYWHSSAHI MGEAMERVYG GCLCYGPPIE NGFYYDMYLE EGGVSSNDFS SLEALCKKII KEKQAFERLE VKKETLLAMF KYNKFKCRIL NEKVNTPTTT VYRCGPLIDL CRGPHVRHTG KIKALKIHKN SSTYWEGKAD METLQRIYGI SFPDPKMLKE WEKFQEEAKN RDHRKIGRDQ ELYFFHELSP GSCFFLPKGA YIYNALIEFI RSEYRKRGFQ EVVTPNIFNS RLWMTSGHWQ HYSENMFSFE VEKELFALKP MNCPGHCLMF DHRPRSWREL PLRLADFGVL HRNELSGALT GLTRVRRFQQ DDAHIFCAME QIEDEIKGCL DFLRTVYSVF GFSFKLNLST RPEKFLGDIE VWDQAEKQLE NSLNEFGEKW ELNSGDGAFY GPKIDIQIKD AIGRYHQCAT IQLDFQLPIR FNLTYVSHDG DDKKRPVIVH RAILGSVERM IAILTENYGG KWPFWLSPRQ VMVVPVGPTC DEYAQKVRQQ FHDAKFMADI DLDPGCTLNK KIRNAQLAQY NFILVVGEKE KISGTVNIRT RDNKVHGERT ISETIERLQQ LKEFRSKQAE EEF

General References

Freist W, et al. (1995). Biol. Chem. Hoppe-Seyler 376 (4): 213-24.
Pan F, et al. (1982). Int. J. Pept. Protein Res. 20 (2): 159-66.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain