## **PRODUCT INFORMATION**

**Expression system** E.coli

**Domain** 1-548aa

**UniProt No.** 043776

NCBI Accession No. NP\_004530

Alternative Names Asparagine--tRNA ligase cytoplasmic, ASNRS, NARS1

# **PRODUCT SPECIFICATION**

Molecular Weight 65.3 kDa (571aa)

**Concentration** 0.25mg/ml (determined by absorbance at 280nm)

#### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

#### 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

NARS also known as asparagine--tRNA ligase, cytoplasmic. This protein acts as an enzyme. It is known to catalyze the following reaction: ATP + L-asparagine + tRNA (Asn) = AMP + diphosphate + L-asparaginyl-tRNA (Asn). Aminoacyl-tRNA synthetases are a class of enzymes that charge tRNAs with their cognate amino acids. Asparaginyl-tRNA synthetase is localized to the cytoplasm and belongs to the class II family of tRNA synthetases. The N-terminal domain represents the signature sequence for the eukaryotic asparaginyl-tRNA synthetases. Recombinant human NARS, fused to His-tag at N-terminus, was expressed in E. coli and purified by using



conventional chromatography techniques

### **Amino acid Sequence**

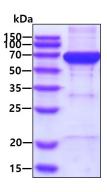
<MGSSHHHHHH SSGLVPRGSH MGS>MVLAELY VSDREGSDAT GDGTKEKPFK TGLKALMTVG KEPFPTIYVD SQKENERWNV ISKSQLKNIK KMWHREQMKS ESREKKEAED SLRREKNLEE AKKITIKNDP SLPEPKCVKI GALEGYRGQR VKVFGWVHRL RRQGKNLMFL VLRDGTGYLQ CVLADELCQC YNGVLLSTES SVAVYGMLNL TPKGKQAPGG HELSCDFWEL IGLAPAGGAD NLINEESDVD VQLNNRHMMI RGENMSKILK ARSMVTRCFR DHFFDRGYYE VTPPTLVQTQ VEGGATLFKL DYFGEEAFLT QSSQLYLETC LPALGDVFCI AQSYRAEQSR TRRHLAEYTH VEAECPFLTF DDLLNRLEDL VCDVVDRILK SPAGSIVHEL NPNFQPPKRP FKRMNYSDAI VWLKEHDVKK EDGTFYEFGE DIPEAPERLM TDTINEPILL CRFPVEIKSF YMQRCPEDSR LTESVDVLMP NVGEIVGGSM RIFDSEEILA GYKREGIDPT PYYWYTDQRK YGTCPHGGYG LGLERFLTWI LNRYHIRDVC LYPRFVQRCT P

### **General References**

Beaulande M., et al. (1998) Nucleic Acids. 26(2):521-4.

## DATA

#### **SDS-PAGE**



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