

# Recombinant human WARS protein

Catalog Number: ATGP0627

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-471aa

### UniProt No.

P23381

### NCBI Accession No.

NP\_776049

### Alternative Names

Tryptophanyl-tRNA synthetase cytoplasmic, GAMMA-2, IFI53, IFP53, Tryptophanyl-tRNA synthetase, cytoplasmic, TrpRS, hWRS

## PRODUCT SPECIFICATION

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### Molecular Weight

55.3 kDa (491aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 1mM DTT, 10% glycerol

### Purity

> 90% 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

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### Description

WARS, also known as tryptophanyl-tRNA synthetase, belongs to the class I tRNA synthetase family. Two forms of tryptophanyl tRNA synthetase exist, a cytoplasmic form, named WARS, and a mitochondrial form, named WARS2. WARS catalyzes the aminoacylation of tRNA (trp) with tryptophan and is induced by interferon. It also regulates ERK, Akt, and eNOS activation pathways that are associated with angiogenesis, cytoskeletal reorganization and shear stress-responsive gene expression. Recombinant human WARS protein, fused to His-

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tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

## Amino acid Sequence

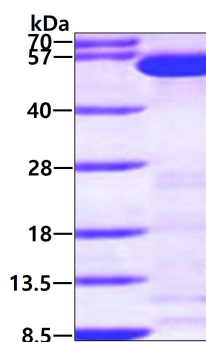
<MGSSHHHHHH SSGLVPRGSH> MPNSEPASLL ELFNSIATQG ELVRSLKAGN ASKDEIDSAV KMLVSLKMSY  
KAAAGEDYKA DCPGPNPAPT SNHGPDTEA EEDFVDPWTV QTSSAKGIDY DKLIVRFGSS KIDKELINRI ERATGQRPHH  
FLRRGIFFSH RDMNQVLDAY ENKKPFYLYT GRGPSSEAMH VGHLIPFIFT KWLQDVFNVP LVIQMTDDEK YLWKDLTLDQ  
AYSYAVENAK DIIACGFDIN KTFIFSDLDY MGMSSGFYKN VVKIQKHVTF NQVKGIFGFT DSDCIGKISF PAIQAAPFS  
NSFPQIFRDR TDIQCLIPCA IDQDPYFRMT RDVAPRIGYP KPALLHSTFF PALQGAQTKM SASDPNSSIF LTDTAKQIKT  
KVNKHAFSGG RDTIEEHRQF GGNCDVDVSF MYLTFLEDD DKLEQIRKDY TSGAMLTGEL KKALIEVLQP LIAEHQARRK  
EVTDEIVKEF MTPRKLSFDF Q

## General References

Nagano K., et al. (2004) Oncogene. 23(9):1693-703.

## DATA

### SDS-PAGE



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