

# Recombinant Human Histidyl-tRNA Synthetase, His-tagged

**Cat. No.** HARS-793H    **Lot. No.** (See product label)

## SPECIFICATION

**Product Overview**      Recombinant human HARS protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques. MW = 59.4 kDa (532aa), confirmed by MALDI-TOF.

**Species**                      Human

**Source**                        E.coli

**Description**                HARS, also known as Histidyl-tRNA synthetase, function to catalyze the aminoacylation of tRNAs by their corresponding amino acids. HARS is from the class II family of aminoacyl-tRNA synthetases. It is responsible for the synthesis of histidyl-transfer RNA, which is essential for the incorporation of histidine into proteins. HARS is a frequent target of autoantibodies in the human autoimmune disease polymyositis/dermatomyositis.

**Sequences Of Amino Acids**

MGSSHHHHH SSGLVPRGSH MGSMAERAAL EELVKLQGER VRGLKQQKAS  
 AELIEEEVAK LLKLKAQLGP DESKQKFVLK TPKGTRDYSR RQMAVREKVF  
 DVIIRCFKRH GAEVIDTPVF ELKETLMGKY GEDSKLIYDL KDQGGELLSL  
 RYDLTVPFAR YLAMNKLNI KRYHIAKVYR RDNPAMTRGR YREFYQCDFD  
 IAGNFDPMIP DAELCKIMCE ILSSLQIGDF LVKVNDRRIL DGMFAICGVS  
 DSKFRTICSS VDKLDKVSWE EVKNEMVGEK GLAPEVADRI GDYVQQHGGV  
 SLVEQLLQDP KLSQNKQALE GLGDLKLLFE YLTLFGIDDK ISFDLSLARG  
 LDYYTGVYIE AVLLQTPAQA GEEPLGVGSV AAGGRYDGLV GMFDPKGRKV  
 PCVGLSIGVE RIFSIVEQRL EALEEKIRTT ETQVLVASAQ KKLLLEERLKL

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VSELWDAGIK AELLYKKNPK LLNQLQYCEE AGIPLVAIIG EQELKDGVIK  
LRSVTSREEV DVRREDLVEE IKRRTGQPLC IC

**Purity** > 95% by SDS – PAGE.

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

**Concentration** 1 mg/ml (determined by Bradford assay).

**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.

## GENE INFORMATION

**Gene Name** [HARS histidyl-tRNA synthetase \[ Homo sapiens \]](#)

**Synonyms** HARS; histidyl-tRNA synthetase; HRS; FLJ20491; histidyl-tRNA synthetase, cytoplasmic; HisRS; OTTHUMP00000223661; OTTHUMP00000223662; histidine transylase; histidine-tRNA ligase; histidine--tRNA ligase; histidine tRNA ligase 1, cytoplasmic; EC 6.1.1.21

**Gene ID** [3035](#)

**mRNA Refseq** [NM\\_002109](#)

**Protein Refseq** [NP\\_002100](#)

**MIM** [142810](#)

**UniProt ID** [P12081](#)

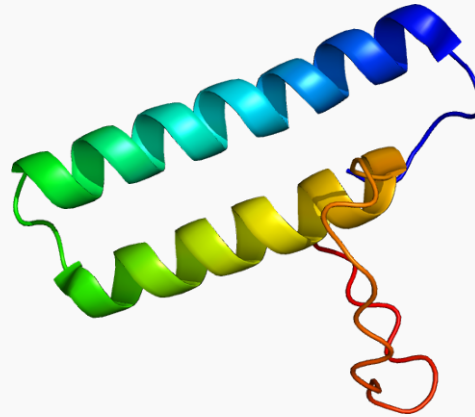
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<b>Chromosome Location</b>	5q31.3
<b>Pathway</b>	Aminoacyl-tRNA biosynthesis
<b>Function</b>	ATP binding; histidine-tRNA ligase activity; ligase activity; nucleotide binding

PDB rendering based on 1x59.



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