

# Recombinant Human Histidyl-tRNA synthetase

**Cat. No.** HARS-46H    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant Human Histidyl-tRNA Synthetase produced in <i>E. Coli</i> is a single, non-glycosylated, polypeptide chain having a molecular mass of 55 kDa. The Histidyl-tRNA Synthetase is purified by proprietary chromatographic techniques.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	Aminoacyl-tRNA synthetases are a class of enzymes that charge tRNAs with their cognate amino acids. The protein encoded by this gene is a cytoplasmic enzyme which belongs to the class II family of aminoacyl-tRNA synthetases. The enzyme is responsible for the synthesis of histidyl-transfer RNA, which is essential for the incorporation of histidine into proteins. The gene is located in a head-to-head orientation with HARS1 on chromosome five, where the homologous genes share a bidirectional promoter. The gene product is a frequent target of autoantibodies in the human autoimmune disease polymyositis/dermatomyositis.
<b>Physical Appearance</b>	Sterile Filtered clear solution.
<b>Purity</b>	Greater than 90.0% as determined by both: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
<b>Formulation</b>	The protein solution (0.74 mg/ml) contains 150 mM NaCl and 10 mM sodium phosphate containing 0.1% NaN <sub>3</sub> (pH 7.2).

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Protein Content</b>	Protein quantitation was carried out by using 0.25 - 2.0 mg/ml Bradford assay vs. BSA.
<b>Western Blot</b>	Strongly reactive with human anti Histidyl-tRNA Synthetase antisera.
<b>Stability</b>	Lyophilized Histidyl-tRNA Synthetase although stable at 4°C for 3 weeks, should be stored desiccated below -18°C. Please prevent freeze-thaw cycles.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">HARS histidyl-tRNA synthetase [ Homo sapiens ]</a>
<b>Synonyms</b>	HARS; histidyl-tRNA synthetase; HRS; FLJ20491; histidine tRNA ligase 1, cytoplasmic; EC 6.1.1.21; HisRS; histidine-tRNA ligase
<b>Gene ID</b>	<a href="#">3035</a>
<b>mRNA Refseq</b>	<a href="#">NM_002109</a>
<b>Protein Refseq</b>	<a href="#">NP_002100</a>
<b>MIM</b>	<a href="#">142810</a>
<b>UniProt ID</b>	<a href="#">P12081</a>
<b>Chromosome Location</b>	5q31.3
<b>Pathway</b>	Aminoacyl-tRNA biosynthesis; Gene Expression
<b>Function</b>	ATP binding; histidine-tRNA ligase activity; histidine-tRNA ligase activity; nucleotide

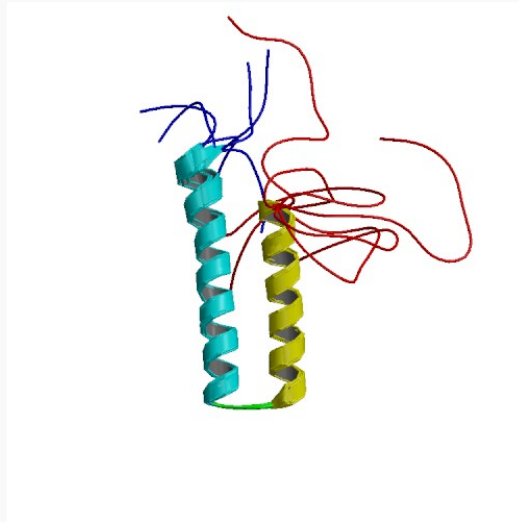
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binding

PDB rendering based  
on 1x59.



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