

Recombinant Human HARS, His-tagged

Cat. No. HARS-29181TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human HARS with an N terminal His tag; 532 amino acids with tag, Predicted MWt 59.4 kDa.
Species	Human
Source	E.coli
ProteinLength	509 amino acids
Description	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 HARSL 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.
Conjugation	HIS
Molecular Weight	59.400kDa inclusive of tags
Form	Liquid
Purity	>95% by SDS-PAGE

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Storage buffer	Preservative: None Constituents: 10% Glycerol, 0.1M Sodium chloride, 20mM Tris HCl, 1mM DTT, pH 8.0
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Sequences of amino acids	<p>MGSSHHHHHSSGLVPRGSHMGMAERAALVELVQLQGERVRLKQKASAEIE</p> <p>EEVAKLLKLKAQLGPDESKQKFVLKTPKGTRDYSRQMAVREKVFVIRCFKRHGA</p> <p>EVIDTPVFELKETLMGKYGEDSKLIYDLKDQGGELLSLRYDLTVPFARYLAMNKLNTNI</p> <p>KRYHIAKVYRRDNPAMTRGRYREFYQCDFDIAGNFDPMPDAECLKIMCEILSSLQIG</p> <p>DFLVKVNDRRILDGMFAICGVSDSKFRTICSSVDKLDKVSWEVKNEMVGEKGLAPE</p> <p>VADRIGDYVQQHGGVSLVEQLLQDPKLSQNKQALEGLGDLKLLFEYLTFLGIDDKISF</p> <p>DLSLARGLDYTYGVIYEAVLLQTPAQAGEEPLGVGSVAAGGRYDGLVGMFDPKGRK</p> <p>VPCVGLSIGVERIFSIVEQRLEALEEKIRTTETQVLVASAQKKLLEERLKLVSSELWDAG</p> <p>IKAELLYKKNPKLLNQLQYCEEAGIPLVAIIGEQLKDGVIKLRSVTSREEVDVRREDL</p> <p>VEEIKRRTGQPLCIC</p>

GENE INFORMATION

Gene Name	HARS histidyl-tRNA synthetase [Homo sapiens]
Official Symbol	HARS
Synonyms	HARS; histidyl-tRNA synthetase; histidyl-tRNA synthetase, cytoplasmic; histidine tRNA ligase 1; cytoplasmic;
Gene ID	3035
mRNA Refseq	NM_002109
Protein Refseq	NP_002100

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MIM	142810
Uniprot ID	P12081
Chromosome Location	5q31.3
Pathway	Aminoacyl-tRNA biosynthesis, organism-specific biosystem; Aminoacyl-tRNA biosynthesis, conserved biosystem; Aminoacyl-tRNA biosynthesis, eukaryotes, organism-specific biosystem; Aminoacyl-tRNA biosynthesis, eukaryotes, conserved biosystem; Cytosolic tRNA aminoacylation, organism-specific biosystem;
Function	ATP binding; histidine-tRNA ligase activity; ligase activity; nucleotide binding;

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