

## Recombinant Human GARS, His-tagged

**Cat. No.** GARS-263H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	GARS, 43-289aa, Human, His tag, E.coli
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	43-289aa
<b>Description</b>	GARS, also known as glycyl-tRNA synthetase, is one of the aminoacyl-tRNA synthetases that charge tRNAs with their cognate amino acids. This enzyme is an (alpha) <sub>2</sub> dimer which belongs to the class II family of tRNA synthetases. It has been shown to be a target of autoantibodies in the human autoimmune diseases, polymyositis or dermatomyositis. Recombinant human GARS protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
<b>Form</b>	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 10% glycerol, 1mM DTT
<b>Molecular Mass</b>	30.0 kDa (270aa), confirmed by MALDI-TOF
<b>AA Sequence</b>	MGSSHHHHHH SSGLVPRGSH MGSPISLPAA ASRSSMDGAG AEEVLAPLRL AVRQQGDLVR KLKEDKAPQV DVDKAVAEK ARKRVLEAKE LALQPKDDIV DRAKMEDTLK RRFYDQAFI IYGGVSGLYD FGPVGCALKN NIIQTRQHF IQEEQILEID CTMLTPEPVL KTSQGHVDKFA DFMVKDVKNG ECFRADHLLK

 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

AHLQKLMSDK KCSVEKKSEM ESVLAQLDNY GQELADLFV NYNVKSPITG  
NDLSPPVVSFN LMFKTFIGPG

**Purity** >85% by SDS - PAGE

**Storage** Can be stored at +4C short term (1-2 weeks). For long term storage, aliquot and store at -20C or -70C. Avoid repeated freezing and thawing cycles.

**Concentration** 0.5 mg/ml (determined by Bradford assay)

## GENE INFORMATION

**Gene Name** [GARS glycyL-tRNA synthetase \[ Homo sapiens \]](#)

**Official Symbol** GARS

**Synonyms** GARS; glycyL-tRNA synthetase; Charcot Marie Tooth neuropathy 2D , CMT2D; glycine--tRNA ligase; DSMAV; glycine tRNA ligase; GlyRS; SMAD1; AP-4-A synthetase; Charcot-Marie-Tooth neuropathy 2D; diadenosine tetraphosphate synthetase; Charcot-Marie-Tooth neuropathy, neuronal type, D; HMN5; CMT2D;

**Gene ID** [2617](#)

**mRNA Refseq** [NM\\_002047](#)

**Protein Refseq** [NP\\_002038](#)

**MIM** [600287](#)

**UniProt ID** [P41250](#)

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<b>Chromosome Location</b>	7p15
<b>Pathway</b>	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; Gene Expression, organism-specific biosystem; Mitochondrial tRNA aminoacylation, organism-specific biosystem;
<b>Function</b>	ATP binding; glycine-tRNA ligase activity; glycine-tRNA ligase activity; ligase activity; nucleotide binding; protein dimerization activity;

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