

Recombinant Human GARS, His-tagged

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

SPECIFICATION

Product Overview	GARS, 43-289aa, Human, His tag, E.coli
Species	Human
Source	E.coli
ProteinLength	43-289aa
Description	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) ₂ 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.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 10% glycerol, 1mM DTT
Molecular Mass	30.0 kDa (270aa), confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGSPISLPAA ASRSSMDGAG AEEVLAPLRL AVRQQGDLVR KLKEDKAPQV DVDKAVAEK ARKRVLEAKE LALQPKDDIV DRAKMEDTLK RRFYDQAF A IYGGVSGLYD FGPVGCALKN NIIQTWQRHF IQEEQILEID CTMLTPEPVL KTS GHVDKFA DFMVKDVKNG ECFRADHLLK

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AHLQKLMSDK KCSVEKKSEM ESVLAQLDNY GQQLADLFV 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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Chromosome Location	7p15
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; Gene Expression, organism-specific biosystem; Mitochondrial tRNA aminoacylation, organism-specific biosystem;
Function	ATP binding; glycine-tRNA ligase activity; glycine-tRNA ligase activity; ligase activity; nucleotide binding; protein dimerization activity;

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