

Recombinant Human QARS protein, His & T7-tagged

Cat. No. QARS-8213H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human QARS aa. (Pro514~Val775 (Accession # P47897)) fused with N-terminal His & T7 tag was produced in E. coli cells.
Species	Human
Source	E.coli
ProteinLength	Pro514~Val775
Description	Aminoacyl-tRNA synthetases catalyze the aminoacylation of tRNA by their cognate amino acid. Because of their central role in linking amino acids with nucleotide triplets contained in tRNAs, aminoacyl-tRNA synthetases are thought to be among the first proteins that appeared in evolution. In metazoans, 9 aminoacyl-tRNA synthetases specific for glutamine (gln), glutamic acid (glu), and 7 other amino acids are associated within a multienzyme complex. Although present in eukaryotes, glutaminyl-tRNA synthetase (QARS) is absent from many prokaryotes, mitochondria, and chloroplasts, in which Gln-tRNA(Gln) is formed by transamidation of the misacylated Glu-tRNA(Gln). Glutaminyl-tRNA synthetase belongs to the class-I aminoacyl-tRNA synthetase family. Alternative splicing results in multiple transcript variants.
Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 33.0kDa.

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Endotoxin	<1.0EU per 1ug (determined by the LAL method)
Purity	>95%
Characteristic	The isoelectric point is 6.3.
Applications	SDS-PAGE; WB; ELISA; IP.
Stability	The thermal stability is described by the loss rate of the target protein. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.
Storage Buffer	Supplied as lyophilized form in 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5% trehalose, and preservative.
Reconstitution	Reconstitute in sterile ddH2O.

GENE INFORMATION

Gene Name	QARS glutaminyl-tRNA synthetase [Homo sapiens (human)]
Official Symbol	QARS
Synonyms	QARS; glutaminyl-tRNA synthetase; GLNRS; MSCCA; PRO2195; glutamine--tRNA ligase; glutamine-tRNA synthetase

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Gene ID	5859
mRNA Refseq	NM_001272073.1
Protein Refseq	NP_001259002.1
UniProt ID	P47897

SDS-PAGE

