Recombinant Human QARS, His-tagged

Cat. No. QARS-28669TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment, corresponding to amino acids 434-772 of Human QARS with N terminal His tag; 339 amino acids, 39kDa.
Species	Human
Source	E.coli
ProteinLength	434-772 a.a.
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.
Conjugation	HIS
Form	Lyophilised:Reconstitute with 119 µl aqua dest.
Storage buffer	Preservative: NoneConstituents: 0.5% Trehalose, 6M Urea, 100mM Sodium

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	phosphate, 10mM Sodium chloride, pH 4.5
Storage	Shipped at 4°C. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	IYPTYDYTHCLCDSIEHITHSLCTKEFQARRSSYFWLCNA LDVYCPVQWEYGRLNLH YAVVSKRKILQLVATGAVRDW DDPRLFTLTALRRRGFPPEAINNFCARVGVTVAQTT MEPHLLEACVRDVLNDTAPRAMAVLESLRVIITNFPAAKSLD IQVPNFPADETKGFH QVPFAPIVFIERTDFKEEPEPGF KRLAWGQPVGLRHTGYVIELQHVVKGPSGCVESL EVTCRRADAGEKPKAFIHWVSQPLMCEVRLYERLFQHKNPEDPT EVPGGFLSDLNL ASLHVVDAALVDCSVALAKPFDKFQF ERLGYFSVDPDSHQGKLVFNRTVTLKEDP

GENE INFORMATION

Gene Name	QARS glutaminyl-tRNA synthetase [Homo sapiens]
Official Symbol	QARS
Synonyms	QARS; glutaminyl-tRNA synthetase; glutamine tRNA ligase;
Gene ID	5859
mRNA Refseq	NM_005051
Protein Refseq	NP_005042
MIM	603727
Uniprot ID	P47897
Chromosome Location	3p21.31

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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; glutamine-tRNA ligase activity; ligase activity; nucleotide binding;

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