



# Recombinant Human Glutamine--tRNA ligase (QARS)

<b>Product Code</b>	CSB-EP019132HU-B
<b>Storage</b>	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
<b>Uniprot No.</b>	P47897
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	>85% (SDS-PAGE)
<b>Sequence</b>	<p>AALDSLSLF TSLGLSEQKA RETLKNLSALS AQLREAATQA QQTLGSTIDK            ATGILLYGLA SRLRDTRRLS FLVSYIASKK IHTEPQLSAA LEYVRSHPLD            PIDTVDFERE CGVGVIVTPE QIEEAVEAAI NRHRPQLLVE RYHFNMGLLM            GEARAVLKWA DGKMIKNEVD MQVLHLLGPK LEADLEKKFK VAKARLEETD            RRTAKDVVEN GETADQTLSTL MEQLRGEALK FHKPGENYKT PGYVVTPHTM            NLLKQHLEIT GGQVRTRFPP EPNGILHIGH AKAINFNFGY AKANNGICFL            RFDDTNPEKE EAKFFTAICD MVAWLGYPY KVTYASDYFD QLYAWAVELI            RRGLAYVCHQ RGEELKGHNT LPSPWRDRPM EESLLLFEAM RKGKFSEGEA            TLRMKLVMED GKMDPVAYRV KYTPHHRTGD KWCYPTYDY THCLCDSIEH            ITHSLCTKEF QARRSSYFWL CNALDVYCPV QWEYGRNLNH YAVVSKRKIL            QLVATGAVRD WDDPRLFTLT ALRRRGFPPE AINNFCARVG VTVAQTTMEP            HLEACVRDV LNDTAPRAMA VLESLRVIIT NFPAAKSLDI QVNFPADET            KGFHQVPFAP IVFIERTDFK EEPEPGFKRL AWGQPVGLRH TGYVIELQHV            VKGPSGCVES LEVTCRRADA GEKPKAFIHW VSQPLMCEVR LYERLFQHKH            PEDPTEVPGG FLSDLNLASL HVVDAALVDC SVALAKPFDK FQFERLGYS            VDPDSHQGKL VFNRTVTLKE DPGKV</p>
<b>Source</b>	E.coli
<b>Target Names</b>	QARS
<b>Protein Names</b>	Recommended name: Glutamine--tRNA ligase EC= 6.1.1.18 Alternative name(s): Glutaminyl-tRNA synthetase Short name= GlnRS
<b>Expression Region</b>	2-775
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag type will be determined during the manufacturing process.
<b>Protein Length</b>	Full Length of Mature Protein
<b>Target Details</b>	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.

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**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

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**Shelf Life**

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.