Recombinant Human CARS, His-tagged

Cat. No. CARS-10724H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CARS protein, fused to His-tag, was expressed in E.coli and purified by Ni-sepharose.
Species	Human
Source	E.coli
ProteinLength	1-353a.a.
Description	Breakdown products of phosphoinositides are ubiquitous second messengers that function downstream of many G protein-coupled receptors and tyrosine kinases regulating cell growth, calcium metabolism, and protein kinase C activity. This gene encodes an enzyme which regulates the amount of phosphatidylinositol available for signaling by catalyzing the conversion of phosphatidic acid to CDP-diacylglycerol. This enzyme is an integral membrane protein localized to two subcellular domains, the matrix side of the inner mitochondrial membrane where it is thought to be involved in the synthesis of phosphatidylglycerol and cardiolipin and the cytoplasmic side of the endoplasmic reticulum where it functions in phosphatidylinositol biosynthesis. Two genes encoding this enzyme have been identified in humans, one mapping to human chromosome 4q21 and a second to 20p13.
Storage	The protein is stored in PBS buffer at -20℃. Avoid repeated freezing and thawing cycles.
Storage Buffer	1M PBS (58mM Na2HPO4,17mM NaH2PO4, 68mM NaCl, pH8.) added with 300mM

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	Imidazole and 0.7% Sarcosyl, 15%glycerol.

GENE INFORMATION

Gene Name	CARS cysteinyl-tRNA synthetase [Homo sapiens]
Official Symbol	CARS
Synonyms	CARS; cysteinyl-tRNA synthetase; cysteine--tRNA ligase, cytoplasmic; CARS1; cysteine tRNA ligase 1; cytoplasmic; cysteine translase; cysteine tRNA ligase 1, cytoplasmic; CYSRS; MGC:11246;
Gene ID	833
mRNA Refseq	NM_001014437
Protein Refseq	NP_001014437
MIM	123859
UniProt ID	P49589
Chromosome Location	11p15.5
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; tRNA Aminoacylation, organism-specific biosystem;

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Function	ATP binding; ATP binding; cysteine-tRNA ligase activity; cysteine-tRNA ligase activity; cysteine-tRNA ligase activity; ligase activity; metal ion binding; nucleotide binding; protein binding; protein homodimerization activity; protein homodimerization act

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