Probable Cysteine--Trna Ligase, Mitochondrial (CARS2) Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	Probable cysteine--tRNA ligase, mitochondrial (CARS2), Recombinant Protein
Full Product Name	Recombinant Human Probable cysteine--tRNA ligase, mitochondrial (CARS2) , partial
Product Gene Name	CARS2 recombinant protein
Product Synonym Gene Name	CARS2
Sequence	LIVAHAEAAS WYSCGPTVYD HAHLGHACSY VRFDIIRRIL TKVFGCSIVM VMGITDVDDK IIKRANEMNI SPASLASLYE EDFKQDMAAL KVLPPTVYLR VTENIPQIIS FIEGIIARGN AYSTAKGNVY FDLKSRGDKY GKLVGVVPGP VGEPADSDKR HASDFALWKA AKPQEVFWAS PWGPGRPGWH IECSAIASMV FGSQLDIHSG GIDLAFPHHE NEIAQCEVFH QCEQWGNYFL HSGHLHAKGK EEKMSKSLKN YITIKDFLKT FSPDVFRFFC LRSSYRSAID YSDSAMLQAQ Q
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	62,224 Da
Sequence Positions	65-365. partial
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
OMIM	612800
3D Structure	ModBase 3D Structure for Q9HA77
Species	Human
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for CARS2 recombinant protein	MBS1355444 is a recombinant protein targeting CARS2. Also known as Recombinant Human Probable cysteine--tRNA ligase, mitochondrial (CARS2) , partial. Host: E Coli or Yeast or Baculovirus or Mammalian Cell.
Other Notes	Small volumes of CARS2 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CARS2. It may not necessarily be applicable to this product.

NCBI GI #	13375695
NCBI GeneID	79587
NCBI Accession #	NP_078813.1
UniProt Primary Accession #	Q9HA77

UniProt Secondary Accession #	Q8NI84; Q96IV4
UniProt Related Accession #	Q9HA77
GenBank Nucleotide #	NM_024537.3
NCBI Official Full Name	probable cysteine--tRNA ligase, mitochondrial isoform 1
NCBI Official Synonym Full Names	cysteinyl-tRNA synthetase 2, mitochondrial
NCBI Official Symbol	CARS2
NCBI Official Synonym Symbols	cysRS; COXPD27
UniProt Protein Name	Probable cysteine--tRNA ligase, mitochondrial
UniProt Synonym Protein Names	Cysteinyl-tRNA synthetase; CysRS
UniProt Gene Name	CARS2
UniProt Synonym Gene Names	CysRS
NCBI Protein Information	probable cysteine--tRNA ligase, mitochondrial
NCBI Summary for CARS2	This gene encodes a putative member of the class I family of aminoacyl-tRNA synthetases. These enzymes play a critical role in protein biosynthesis by charging tRNAs with their cognate amino acids. This protein is encoded by the nuclear genome but is likely to be imported to the mitochondrion where it is thought to catalyze the ligation of cysteine to tRNA molecules. A splice-site mutation in this gene has been associated with a novel progressive myoclonic epilepsy disease with similar symptoms to MERRF syndrome. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jun 2017]
Research Articles on CARS2	**1.** Mutations in CARS2 result in a mitochondrial translational defect as seen in individuals with mitochondrial epileptic encephalopathy.
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