

Recombinant Human KARS, His-tagged

Cat. No. KARS-29008TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment Human Lysyl tRNA synthetase (amino acids 63-597) with a N terminal His tag. 558 amino acids with a predicted MWt 63.7 kDa including tag.
Species	Human
Source	E.coli
ProteinLength	535 amino acids
Description	Aminoacyl-tRNA synthetases are a class of enzymes that charge tRNAs with their cognate amino acids. Lysyl-tRNA synthetase is a homodimer localized to the cytoplasm which belongs to the class II family of tRNA synthetases. It has been shown to be a target of autoantibodies in the human autoimmune diseases, polymyositis or dermatomyositis. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.
Conjugation	HIS
Molecular Weight	63.700kDa inclusive of tags
Form	Liquid
Purity	>95% by SDS-PAGE
Storage buffer	pH: 8.00 Constituents: 0.32% Tris HCl, 20% Glycerol, 0.58% Sodium chloride, 0.02%

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	DTT
Storage	Store at +4°C short term (1-2 weeks). Aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Sequences of amino acids	MGSSHHHHHSSGLVPRGSHMGSGVGPEEESVDPNQYYKIRSQAIHQLKVNGEDP YPHKFHVDISLTDIFIQKYSHLQPGDHLTDITLKVAGRIHAKRASGGKLIFYDLRGEGVK LQVMANSRNYKSEEEFIHINNKLRRGDIIGVQGNPGKTKKGELSIIPIYEITLLSPCLHM LPHLHFGLKDKETRYRQRYLDLILNDFVRQKFIIRSKIITYIRSFLDELGFLEIETPMMNII PGGAVAKPFITYHNELDMNLYMRIAPELYHKMLVVGIDRVYEIGRQFRNEGIDLTHN PEFTTCEFYMAYADYHDLMEITEKMOVSGMVKHITGSYKVITYHPDGPEGQAYDVDFD PPFRINMVVEELEKALGMKLPETNLFETEETRKILDDICVAKAVECPPPRTTARLLDKL VGEFLEVTCINPTFICDHPQIMSPKAKWHRSEKGLTERFELFVMKKEICNAYTELNDP MRQRQLFEEQAKAKAAGDDEAMFIDENFCTALEYGLPPTAGWGMGIDRVAMFLTD SNNIKEVLLFPAMKPEDKKENVATTDLTLESTTVGTSTV
Sequence Similarities	Belongs to the class-II aminoacyl-tRNA synthetase family.

GENE INFORMATION

Gene Name	KARS lysyl-tRNA synthetase [Homo sapiens]
Official Symbol	KARS
Synonyms	KARS; lysyl-tRNA synthetase; KARS2; lysine tRNA ligase;
Gene ID	3735
mRNA Refseq	NM_001130089

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Protein Refseq	NP_001123561
MIM	601421
Uniprot ID	Q15046
Chromosome Location	16q23.1
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; ligase activity; lysine-tRNA ligase activity; lysine-tRNA ligase activity; metal ion binding;

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