

Recombinant Human KARS, His-tagged

Cat. No. KARS-1010H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human KARS protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.
Species	Human
Source	E.coli
Description	KARS, also known as Lysyl-tRNA synthetase, belongs to the class-II aminoacyl-tRNA synthetase family. It exists as both mitochondrial and cytoplasmic isoforms produced by alternative splicing, and thought to play a role in autoimmune diseases, such as polymyositis or dermatomyositis. This protein functions to catalyze the aminoacylation of tRNAs by their corresponding amino acids, thus linking amino acids with tRNA-contained nucleotide triplets.
Form	Liquid. 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol, 0.1M NaCl, 1mM DTT
Molecular Weight	63.7 kDa (558aa)
Purity	> 95% by SDS - PAGE
Concentration	1.0 mg/ml (determined by Bradford assay)
Sequences of amino acids	MGSSHHHHHH SSGLVPRGSH MGSGVGPEEE SVDPNQYYKI RSQAIHQLKV NGEDPYPHKF HVDISLTDFI QKYSHLQPGD HLTDITLKVAGRIHAKRASG GKLIFYDLRG EGVKLQVMAN SRNYKSEEEF IHINNKLRRG DIIGVQGNPG

 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

KTKKGELSII PYEITLLSPC LHMLPHLHFGKDKETRYRQ RYLDLILNDF
 VRQKFIIRSK IITYIRSFLD ELGFLEIETP MMNIIPGGAV AKPFITYHNE
 LDMNLYMRIA PELYHKMLVVGGIDRVYEIG RQFRNEGIDL THNPEFTTCE
 FYMAYADYHD LMEITEKMVS GMVKHITGSY KVTYHPDGPE GQAYDVDFTP
 PFRRINMVEELEKALGMKLP ETNLFETEET RKILDDICVA KAVECPPPRT
 TARLLDKLVG EFLEVTCINP TFICDHPQIM SPLAKWHRSK
 EGLTERFELFVMKKEICNAY TELNDPMRQR QLFEEQAKAK AAGDDEAMFI
 DENFCTALEY GLPPTAGWGM GIDRVAMFLT DSNNIKEVLL
 FPAMKPEDKKENVATDTLE STTVGTSV

Storage

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name [KARS lysyl-tRNA synthetase \[Homo sapiens \]](#)

Official Symbol KARS

Synonyms KARS; KRS; KARS2; CMTRIB; KIAA0070; lysyl-tRNA synthetase; lysRS; OTTHUMP00000174948; OTTHUMP00000174949; lysine tRNA ligase; EC 6.1.1.6; Lysine--tRNA ligase

Gene ID [3735](#)

mRNA Refseq [NM_001130089](#)

Protein Refseq [NP_001123561](#)

MIM [601421](#)

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UniProt ID	Q15046
Chromosome Location	16q23.1
Function	ATP binding; ligase activity; lysine-tRNA ligase activity; metal ion binding; nucleic acid binding; nucleotide binding; tRNA binding

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