

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 SSSLVPRGSH MGSGVGPEEE SVDPNQYYKI RSQAIHQLKV NGEDPYPHKF HVDISLTDFI QKYSHLQPGD HLTDTLKVAGRIHAKRASG GKLIFYDLRG EGVKLQVMAN SRNYKSEEEF IHINNKLRRG DIIGVQGNPG

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KTKKGELSII PYEITLLSPC LHMLPHLHFGLKDKETRYRQ 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-tRNAsynthetase;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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