

# Lysyl-tRNA Synthetase Recombinant Protein | KARS recombinant protein

Recombinant Human Lysyl-tRNA Synthetase

CATALOG #  
**AAA38912**

## PRODUCT SYNONYMS

Lysyl-tRNA Synthetase; Recombinant Human Lysyl-tRNA Synthetase; KARS Human; Lysyl-tRNA Synthetase Human Recombinant; Lysine--tRNA ligase; Lysyl-tRNA synthetase; LysRS; KARS; KIAA0070; KRS; KARS2; CMTRIB; KARS recombinant protein

## PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Purity/Purification     | Greater than 95.0% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Form/Format             | KARS protein solution (1mg/ml) containing 20mM Tris-HCl buffer (pH8.0), 20% glycerol, 0.1M NaCl and 1mM DTT. Sterile Filtered colorless solution.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Sequence                | MGSSHHH HHHSSGLVPR GSHMGS GVGPEEESVD PNQYYKIRSQ AIHQLKVNGE DPYPHKFHVD ISLTDFIQKY SHLQPGDHLT DITLKVAGRI HAKRASGGKL IFYDLRGEGV KLQVMANSRN YKSEEEFIHI NNKLRRGDII GVQGNPGKTK KGELSIIPYE ITLLSPCLHM LPHLHFGDKD KETRYRQRYL DLILNDFVRQ KFIIRSKIIT YIRSFLDELG FLEIETPMMN IIPGGAVAKP FITYHNELDM NLYMRIAPEL YHKMLVVGGI DRVYEIGRQF RNEGIDLTHN PEFTTCEFYM AYADYHDLME ITEKMVSGMV KHITGSYKVT YHPDGPEGQA YDVFDFPPFR RINMVEELEK ALGMKLPETN LFETEETRKI LDDICVAKAV ECPPPRTTAR LLDKLVGEFL EVTGINPTFI CDHPQIMSPK AKWHRSEKGL TERFELFVMK KEICNAYTEL NDPMRQRQLF EEQAKAKAAG DDEAMFIDEN FCTALEYGLP PTAGWGMGID RVAMFLTDSN NIKEVLLFPA MKPEDKKENV ATTDLTLESTT VGTSV. |
| Sequence Length         | 625                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Source                  | Escherichia Coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Preparation and Storage | Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                     |

## ADDITIONAL INFORMATION

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|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for KARS recombinant protein | <p><b>Description:</b> KARS Human Recombinant produced in E Coli is a single, non-glycosylated polypeptide chain containing 558 amino acids (63-597 a.a.) and having a molecular mass of 63.7kDa.KARS is fused to a 23 amino acid His-tag at N-terminus &amp; purified by proprietary chromatographic techniques.</p> <p><b>Introduction:</b> Lysyl-tRNA synthetase (KARS) is a member of the class-II aminoacyl-tRNA synthetase family. KARS exists as both mitochondrial and cytoplasmic isoforms produced by alternative splicing, and believed to have a role in autoimmune diseases, such as polymyositis or dermatomyositis. The KARS protein functions to catalyze the aminoacylation of tRNAs by their corresponding amino acids, so linking amino acids with tRNA-contained nucleotide triplets.</p> |
| Product Categories/Family for KARS recombinant protein   | Enzymes; Synthetase                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## NCBI AND UNIPROT INFORMATION

|                           |                |
|---------------------------|----------------|
| NCBI GI #                 | 194272210      |
| NCBI GeneID               | 3735           |
| NCBI Accession #          | NP_001123561.1 |
| NCBI GenBank Nucleotide # | NM_001130089.1 |

|                                  |                                                                                                                                                     |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| UniProt Accession #              | <a href="#">Q15046</a> ; <a href="#">O14946</a> ; <a href="#">Q96J25</a> ; <a href="#">Q9HB23</a> ; <a href="#">A8MSK1</a> ; <a href="#">D3DUK4</a> |
| Molecular Weight                 | 71,497 Da                                                                                                                                           |
| NCBI Official Full Name          | lysine--tRNA ligase isoform 1                                                                                                                       |
| NCBI Official Synonym Full Names | lysyl-tRNA synthetase                                                                                                                               |
| NCBI Official Symbol             | KARS                                                                                                                                                |
| NCBI Official Synonym Symbols    | KRS; KARS1; KARS2; CMTRIB; DFNB89                                                                                                                   |
| NCBI Protein Information         | lysine--tRNA ligase; lysRS; lysine tRNA ligase                                                                                                      |
| UniProt Protein Name             | Lysine--tRNA ligase                                                                                                                                 |
| UniProt Gene Name                | <b>KARS</b>                                                                                                                                         |
| UniProt Synonym Gene Names       | KIAA0070; LysRS                                                                                                                                     |
| UniProt Entry Name               | SYK_HUMAN                                                                                                                                           |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/kars-recombinant-protein/38912>