

## KARS Human

**Description:** 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 & purified by proprietary chromatographic techniques.

**Catalog #:** ENPS-168

For research use only.

**Synonyms:** Lysine--tRNA ligase, Lysyl-tRNA synthetase, LysRS, KARS, KIAA0070, KRS, KARS2, CMTRIB.

**Source:** Escherichia Coli.

**Physical Appearance:** Sterile Filtered colorless solution.

**Amino Acid Sequence:** MGSSHHHHHH SSGLVPRGSH MGSGVGPEEE SVDPNQYYKI  
RSQAIHQKLV NGEDPYPHKF HVDISLTDFI QKYSHLQPGD HLTDITLKVA GRIHAKRASG  
GKLIFYDLRG EGVKLQVMAN SRNYKSEEEF IHNNKLRRG DIIGVQGNPG KTKKGELSII  
PYEITLLSPC LHMLPHLHFG LKDKETRYRQ RYLDLILNDF VRQKFIIRSK IITYIRSFLD  
ELGFLEIETP MM

**Purity:** Greater than 95.0% as determined by SDS-PAGE.

**Formulation:**

KARS protein solution (1mg/ml) containing 20mM Tris-HCl buffer (pH8.0), 20% glycerol, 0.1M NaCl and 1mM DTT.

**Stability:**

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.

**Usage:**

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

**Introduction:**

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.

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