

## ARG40056 anti-KARS / LysRS antibody

Package: 100 µl  
Store at: -20°C

### Summary

|                     |  |
|---------------------|--|
| Product Description | Rabbit Polyclonal antibody recognizes KARS / LysRS   |
| Tested Reactivity   | Hu, Ms, Rat  |
| Tested Application  | ICC/IF, WB   |
| Host                | Rabbit   |
| Clonality           | Polyclonal   |
| Isotype             | IgG  |
| Target Name         | KARS / LysRS   |
| Species             | Human  |
| Immunogen           | Recombinant fusion protein corresponding to aa. 298-597 of Human KARS (NP_005539.1).             |
| Conjugation         | Un-conjugated  |
| Alternate Names     | EC 6.1.1.6; KRS; Lysyl-tRNA synthetase; CMTRIB; LysRS; DFNB89; KARS2; Lysine--tRNA ligase; KARS1 |

### Application Instructions

| Application table | Application  | Dilution       |
|-------------------|--|----------------|
|                   | ICC/IF   | 1:50 - 1:200   |
|                   | WB   | 1:500 - 1:2000 |
| Application Note  | * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. |                |
| Positive Control  | Rat liver, Mouse kidney and 293T   |                |
| Observed Size     | 72 kDa   |                |

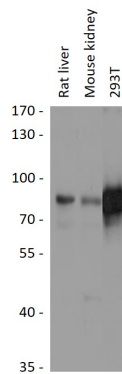
### Properties

|                     |   |
|---------------------|---|
| Form                | Liquid  |
| Purification        | Affinity purified.  |
| Buffer              | PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.  |
| Preservative        | 0.02% Sodium azide  |
| Stabilizer          | 50% Glycerol  |
| Storage instruction | For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |
| Note                | For laboratory research only, not for drug, diagnostic or other use.  |

## Bioinformation

|                       |   |
|-----------------------|---|
| Gene Symbol           | KARS  |
| Gene Full Name        | lysyl-tRNA synthetase   |
| Background            | 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. [provided by RefSeq, Jul 2008]   |
| Function              | Catalyzes the specific attachment of an amino acid to its cognate tRNA in a 2 step reaction: the amino acid (AA) is first activated by ATP to form AA-AMP and then transferred to the acceptor end of the tRNA. When secreted, acts as a signaling molecule that induces immune response through the activation of monocyte/macrophages. Catalyzes the synthesis of diadenosine oligophosphate (Ap4A), a signaling molecule involved in the activation of MITF transcriptional activity. Interacts with HIV-1 virus GAG protein, facilitating the selective packaging of tRNA(3)(Lys), the primer for reverse transcription initiation. [UniProt] |
| Calculated Mw         | 68 kDa  |
| Cellular Localization | Isoform Cytoplasmic: Cytoplasm, cytosol. Cytoplasm. Nucleus. Cell membrane; Peripheral membrane protein. Secreted. Note=Secretion is induced by TNF-alpha (PubMed:15851690). Cytosolic in quiescent mast cells. Translocates into the nucleus in response to mast cell activation by immunoglobulin E (PubMed:23159739). Isoform Mitochondrial: Mitochondrion. [UniProt]  |

## Images



ARG40056 anti-KARS / LysRS antibody WB image

Western blot: 25 µg of Rat liver, Mouse kidney and 293T cell lysates stained with ARG40056 anti-KARS / LysRS antibody at 1:3000 dilution.