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KARS Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP11097a

Specification

KARS Antibody (N-term) Blocking peptide - Product Information

Primary Accession Q15046

KARS Antibody (N-term) Blocking peptide - Additional Information

Gene ID 3735

Other Names
Lysine--tRNA ligase, Lysyl-tRNA synthetase, LysRS, KARS, KIAA0070

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

KARS Antibody (N-term) Blocking peptide - Protein Information

Name KARS1 (HGNC:6215)

Synonyms KARS, KIAA0070

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 (PubMed:9278442, PubMed:18029264, PubMed:18272479). When secreted, acts as a signaling molecule that induces immune response through the activation of monocyte/macrophages (PubMed:15851690). Catalyzes the synthesis of the signaling molecule diadenosine tetraphosphate (Ap4A), and thereby mediates disruption of the complex between HINT1 and MITF and the concomitant activation of MITF transcriptional activity (PubMed:5338216, PubMed:14975237, PubMed:19524539, PubMed:23159739).

Cellular Location
[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)

KARS Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

KARS Antibody (N-term) Blocking peptide - Images

KARS Antibody (N-term) Blocking peptide - Background

Aminoacyl-tRNA synthetases are a class of enzymes thatcharge tRNAs with their cognate amino acids. Lysyl-tRNA synthetaseis a homodimer localized to the cytoplasm which belongs to theclass II family of tRNA synthetases. It has been shown to be atarget of autoantibodies in the human autoimmune diseases,polymyositis or dermatomyositis. Alternatively spliced transcriptvariants encoding different isoforms have been found for this gene.

KARS Antibody (N-term) Blocking peptide - References

McLaughlin, H.M., et al. Am. J. Hum. Genet. 87(4):560-566(2010)Kepp, O., et al. Cell Cycle 9(15):3072-3077(2010)Segat, L., et al. Vaccine 28(10):2201-2206(2010)Dastani, Z., et al. Eur. J. Hum. Genet. 18(3):342-347(2010)Kawamata, H., et al. J. Biol. Chem. 283(42):28321-28328(2008)