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KARS (Lysyl-tRNA synthetase) Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP7833b

Specification

KARS (Lysyl-tRNA synthetase) Antibody (C-term) Blocking peptide - Product Information

Primary Accession Q15046

KARS (Lysyl-tRNA synthetase) Antibody (C-term) Blocking peptide - Additional Information

Gene ID 3735

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

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7833b was selected from the C-term region of human KARS. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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 (Lysyl-tRNA synthetase) Antibody (C-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 (Lysyl-tRNA synthetase) Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

KARS (Lysyl-tRNA synthetase) Antibody (C-term) Blocking peptide - Images

KARS (Lysyl-tRNA synthetase) Antibody (C-term) Blocking peptide - 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.

KARS (Lysyl-tRNA synthetase) Antibody (C-term) Blocking peptide - References

Guo,M., Proc. Natl. Acad. Sci. U.S.A. 105 (7), 2331-2336 (2008)Kovaleski,B.J., J. Biol. Chem. 282 (44), 32274-32279 (2007)Kaminska,M., FEBS Lett. 581 (16), 3105-3110 (2007)