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KD-Validated Anti-Lysyl-tRNA synthetase 1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1074

Product Information

Application	WB, FC, ICC
Primary Accession	Q15046
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	24GB6130
Calculated MW	68048
Gene Name	KARS1
Aliases	KARS1; Lysyl-TRNA Synthetase 1; KARS2; KARS; Lysyl-TRNA Synthetase; Lysine--TRNA Ligase; Lysine TRNA Ligase; EC 6.1.1.6; DFNB89; LysRS; Deafness, Autosomal Recessive 89; EC 2.7.7.-; KIAA0070; EC 6.1.1; CMTRIB; DEAPLE; LEPID; KRS
Immunogen	A synthesized peptide derived from human LysRS

Additional Information

Gene ID	3735
Other Names	Lysine--tRNA ligase, 2.7.7.-, 6.1.1.6, Lysyl-tRNA synthetase, LysRS, KARS1 (HGNC:6215), KARS, KIAA0070

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:18029264, PubMed:18272479, PubMed:9278442). 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:14975237, PubMed:19524539, PubMed:23159739, PubMed:5338216).
Cellular Location	[Isoform Cytoplasmic]: Cytoplasm, cytosol. Cytoplasm. Nucleus. Cell membrane; Peripheral membrane protein. Secreted Note=Secretion is

induced by TNF (PubMed:15851690). Cytosolic in quiescent mast cells. Translocates into the nucleus in response to mast cell activation by immunoglobulin E (PubMed:23159739)

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