

Rabbit Lysyl tRNA synthetase Polyclonal Antibody | anti-KARS antibody

Lysyl tRNA synthetase Antibody

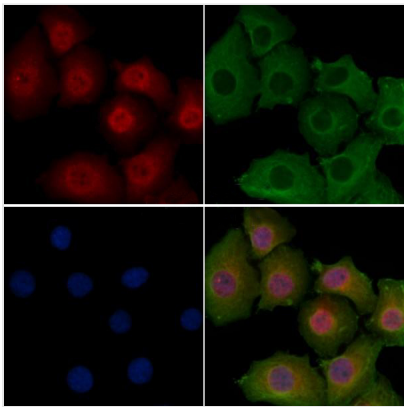
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329044	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig(88%), Zebrafish(100%), Bovine(88%), Horse(100%), Rabbit(100%), Dog(100%), Chicken(100%), Xenopus(100%)	ELISA

PRODUCT SYNONYMS

Lysyl tRNA synthetase; Polyclonal Antibody; Lysyl tRNA synthetase Antibody; CMTRIB; DFNB89; EC 6.1.1.6; KARS 1; KARS 2; KARS; KARS1; KARS2; KIAA0070; KRS; Lysine tRNA ligase; Lysine--tRNA ligase; LysRS; Lysyl-tRNA synthetase; SYK_HUMAN; anti-KARS antibody

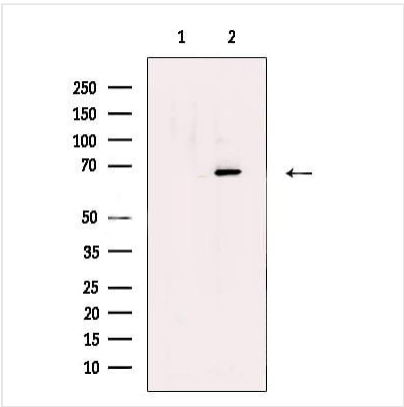
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig(88%), Zebrafish(100%), Bovine(88%), Horse(100%), Rabbit(100%), Dog(100%), Chicken(100%), Xenopus(100%)
Clonality	Polyclonal
Isotype	IgG
Specificity	Lysyl tRNA synthetase Antibody detects endogenous levels of total Lysyl tRNA synthetase.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin (Thermo Fisher Scientific).
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol
Concentration	1mg/ml (varies by lot)
Sequence Length	625
Applicable Applications for anti-KARS antibody	ELISA
Immunogen	A synthesized peptide derived from human Lysyl tRNA synthetase, corresponding to a region within C-terminal amino acids.
Fragment	Fab fragment
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IF (Immunofluorescence)

AAA329044 staining HeLa cells by IF/ICC. The samples were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25°C. Samples were then incubated with primary Ab(AAA329044) and mouse anti-beta tubulin Ab(T0023) for 1 hour at 37°C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody. The nuclear counter stain is DAPI(blue).



WB (Western Blot)

Western blot analysis of extracts from 293T, using Lysyl tRNA synthetase Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-KARS antibody

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).(Microbial infection) Interacts with HIV-1 virus GAG protein, facilitating the selective packaging of tRNA(3)(Lys), the primer for reverse transcription initiation.

Post Translational Modifications: Phosphorylated on a serine residue after mast cell stimulation with immunoglobulin E (IgE).

Subcellular Location: 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).Mitochondrion.

Subunit Structure: Homodimer and tetramer (PubMed:18272479, PubMed:23159739, PubMed:26074468, PubMed:28887846). Part of the multisynthetase complex (MSC), a multisubunit complex that groups tRNA ligases for Arg (RARS), Asp (DARS), Gln (QARS), Ile (IARS), Leu (LARS), Lys (KARS), Met (MARS) the bifunctional ligase for Glu and Pro (EPRS) and the auxiliary subunits AIMP1/p43, AIMP2/p38 and EEF1E1/p18 (PubMed:19131329, PubMed:19289464, PubMed:24312579, PubMed:23159739). Interacts with AIMP2 (via N-terminus) and MITF (PubMed:9878398, PubMed:14975237, PubMed:15220430, PubMed:23159739, PubMed:26074468). Interacts with TARSL2 (PubMed:24312579).(Microbial infection) Interacts directly with HIV-1 virus GAG protein (PubMed:12756246, PubMed:15220430).

Similarity: The N-terminal domain (1-65) of the cytoplasmic isoform is a functional tRNA-binding domain, is required for nuclear localization, is involved in the interaction with DARS, but has a repulsive role in the binding to EEF1A1. A central domain (208-259) is involved in homodimerization and is required for interaction with HIV-1 GAG and incorporation into virions. The C-terminal domain (452-597) is not required for interaction with AIMP2.Belongs to the class-II aminoacyl-tRNA synthetase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	194272210
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NCBI GeneID	3735
NCBI Accession #	NP_001123561.1
NCBI GenBank Nucleotide #	NP_001123561.1
UniProt Accession #	Q15046
Molecular Weight	Observed Molecular Weight: (Observed)68kD. Predicted Molecular Weight: (Calculated)68kDa.
NCBI Official Full Name	lysine--tRNA ligase isoform 1
NCBI Official Synonym Full Names	lysyl-tRNA synthetase 1
NCBI Official Symbol	KARS1
NCBI Official Synonym Symbols	KRS; KARS; KARS2; CMTRIB; DFNB89
NCBI Protein Information	lysine--tRNA ligase
UniProt Protein Name	Lysine--tRNA ligase
UniProt Gene Name	KARS
UniProt Synonym Gene Names	KIAA0070; LysRS
UniProt Entry Name	SYK_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/lysyl-trna-synthetase-antibody-elisa/329044>