

Product Name: KD-Validated Lysyl-tRNA Synthetase 1 Recombinant Rabbit Monoclonal Antibody

Catalog #: KVAb01750

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 68.0kDa

Antigen Information

Gene Name	KARS1 KARS1; Lysyl-TRNA Synthetase 1; KARS2; KARS; Lysyl-TRNA Synthetase; Lysine--TRNA
Alternative Names	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
Gene ID	3735.0
SwissProt ID	Q15046
Immunogen	A synthesized peptide derived from human LysRS

Background

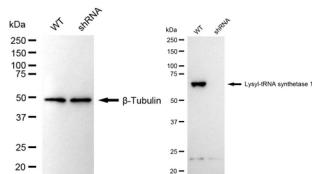
Aminoacyl-tRNA synthetases are a class of enzymes that charge tRNAs with their cognate amino acids. Lysyl-tRNA synthetase

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]

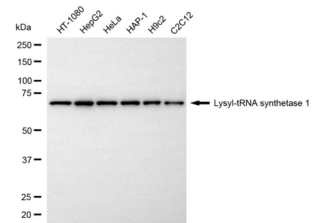
Research Area

Epigenetics and Nuclear Signaling

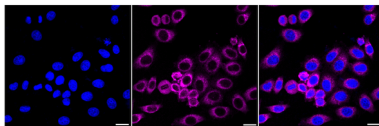
Image Data



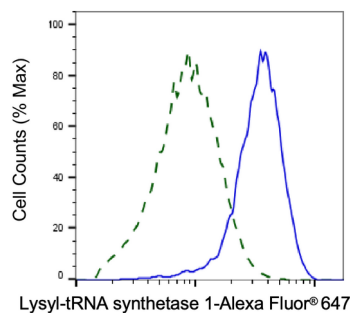
Western blotting analysis using lysyl-tRNA synthetase 1 antibody (KVA01750). Lysyl-tRNA synthetase 1 expression in wild-type (WT) and lysyl-tRNA synthetase 1 (KARS1) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with lysyl-tRNA synthetase 1 antibody (KVA01750, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



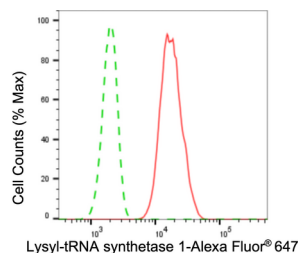
Western blotting analysis using lysyl-tRNA synthetase 1 antibody (KVA01750). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with lysyl-tRNA synthetase 1 antibody (KVA01750, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HepG2 cells with lysyl-tRNA synthetase 1 antibody (KVA01750, 1:1,000). Nuclei were stained blue with DAPI; Lysyl-tRNA synthetase 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 µm.



Validation of Lysyl-tRNA synthetase 1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Lysyl-tRNA synthetase 1 antibody (KVA01750, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of lysyl-tRNA synthetase 1 expression in HepG2 cells using lysyl-tRNA synthetase 1 antibody (KVA01750, 1:2,000). Green, isotype control; red, lysyl-tRNA synthetase 1.