
Product Name: KD-Validated HARS1 Mouse Monoclonal Antibody**Catalog #: KVA00629**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Mouse
Application	WB,FCM,ICC
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG1
Clonality	Mouse 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: 57.4kDa

Antigen Information

Gene Name	HARS1 HARS1; Histidyl-TRNA Synthetase 1; HisRS; HARS; Histidine--TRNA Ligase, Cytoplasmic;
Alternative Names	Histidyl-TRNA Synthetase; EC 6.1.1.21; USH3B; HRS; Histidine TRNA Ligase 1, Cytoplasmic; Histidine Translase; Usher Syndrome 3B; Jo-1 Antigen; Jo-1 Antigen; CMT2W
Gene ID	3035.0
SwissProt ID	P12081
Immunogen	Recombinant protein of human HARS

Background

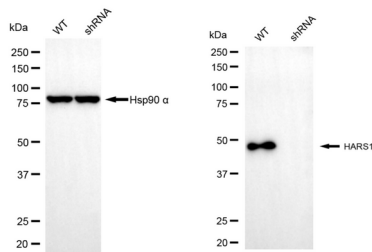
Aminoacyl-tRNA synthetases are a class of enzymes that charge tRNAs with their cognate amino acids. The protein encoded by this gene is a cytoplasmic enzyme which belongs to the class II family of aminoacyl-tRNA synthetases. The enzyme is

responsible for the synthesis of histidyl-transfer RNA, which is essential for the incorporation of histidine into proteins. The gene is located in a head-to-head orientation with HARS1 on chromosome five, where the homologous genes share a bidirectional promoter. The gene product is a frequent target of autoantibodies in the human autoimmune disease polymyositis/dermatomyositis. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2012]

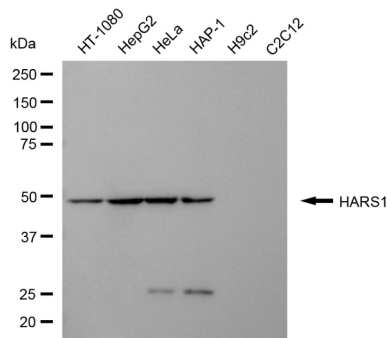
Research Area

Immunology, Epigenetics and Nuclear Signaling

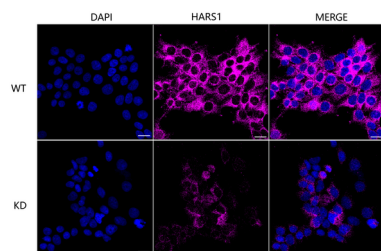
Image Data



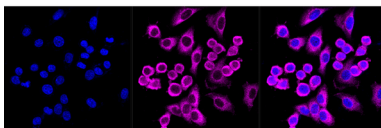
Western blotting analysis using HARS1 antibody (KVA00629). HARS1 expression in wild-type (WT) and HARS1 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with HARS1 antibody (KVA00629, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



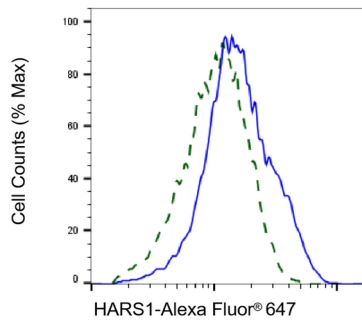
Western blotting analysis using HARS1 antibody (KVA00629). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with HARS1 antibody (KVA00629, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



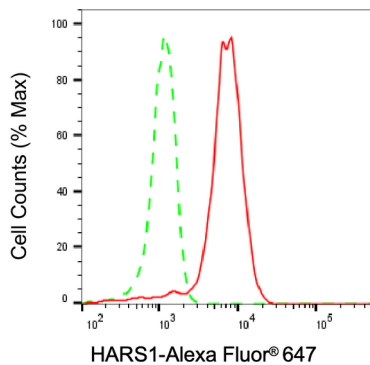
Immunocytochemical staining of HeLa cells using HARS1 antibody (KVA00629, 1:1,000), Top panel: wild-type (WT); Bottom panel: HARS1 shRNA knockdown (KD). Nuclei were stained blue with DAPI; HARS1 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm. Permeabilization: Triton.



Immunocytochemical staining of HepG2 cells with HARS1 antibody (KVA00629, 1:1,000). Nuclei were stained blue with DAPI; HARS1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Validation of HARS1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with HARS1 antibody (KVA00629, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of HARS1 expression in HepG2 cells using HARS1 antibody (KVA00629, 1:2,000). Green, isotype control; red, HARS1.