

Product Name: KD-Validated MARS1 Recombinant Rabbit Monoclonal Antibody**Catalog #: KVAb00393**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,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; IHC-P 1:500-1:1,000
Molecular Weight	Calculated MW: 101.1kDa

Antigen Information

Gene Name	MARS1
Alternative Names	MARS1; Methionyl-TRNA Synthetase 1; MetRS; Methionine--TRNA Ligase, Cytoplasmic; SPG70; CMT2U; MARS; Methionyl-TRNA Synthetase; EC 6.1.1.10; Methionine TRNA Ligase 1, Cytoplasmic; Cytosolic Methionyl-TRNA Synthetase; ILFS2; MTRNS; ILLD; TTD9; MRS
Gene ID	4141.0
SwissProt ID	P56192
Immunogen	A synthesized peptide derived from human MARS

Background

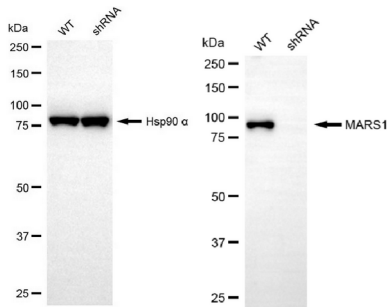
This gene encodes a member of the class I family of aminoacyl-tRNA synthetases. These enzymes play a critical role in protein biosynthesis by charging tRNAs with their cognate amino acids. The encoded protein is a component of the multi-tRNA

synthetase complex and catalyzes the ligation of methionine to tRNA molecules. [provided by RefSeq, Jan 2011]

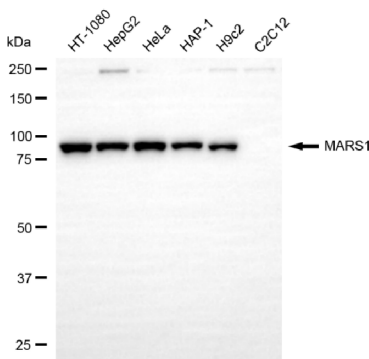
Research Area

Epigenetics and Nuclear Signaling

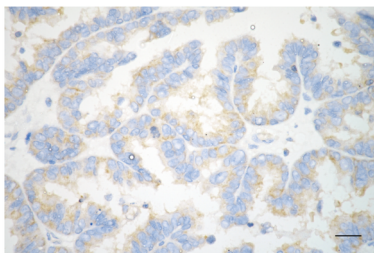
Image Data



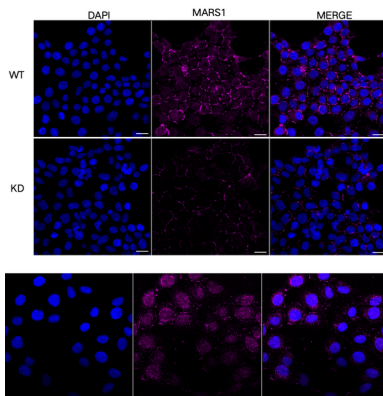
Western blotting analysis using MARS1 antibody (KVA00393). MARS1 expression in wild-type (WT) and MARS1 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with MARS1 antibody (KVA00393, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using MARS1 antibody (KVA00393). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with MARS1 antibody (KVA00393, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.

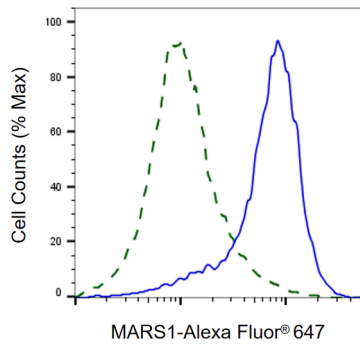


Immunohistochemistry was performed on paraffin-embedded human ovarian carcinoma using MARS1 antibody (KVA00393, 1:1,000). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.

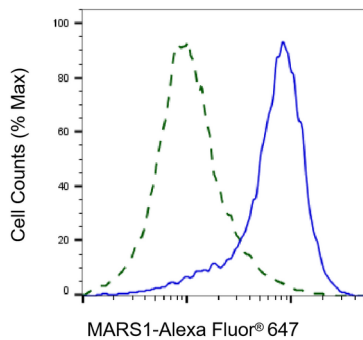


Immunocytochemical staining of HeLa cells using MARS1 antibody (KVA00393, 1:1,000), Top panel: wild-type (WT); Bottom panel: MARS1 shRNA knockdown (KD). Nuclei were stained blue with DAPI; MARS1 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.

Immunocytochemical staining of HT-1080 cells with MARS1 antibody (KVA00393, 1:1,000). Nuclei were stained blue with DAPI; MARS1 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 MARS1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with MARS1 antibody (KVA00393, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of MARS1 expression in HT-1080 cells using MARS1 antibody (KVA00393, 1:2,000). Green, isotype control; red, MARS1.