

Product Name: KD-Validated Mitochondrial Ribosomal Protein S15 Recombinant Rabbit Monoclonal Antibody

Catalog #: KVA01016

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human
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 1:100-1:200
Molecular Weight	Calculated MW: 29.8kDa

Antigen Information

Gene Name	MRPS15 Mitochondrial Ribosomal Protein S15; 28S Ribosomal Protein S15, Mitochondrial; Small
Alternative Names	Ribosomal Subunit Protein US15m; FLJ11564; MRP-S15; RPMS15; US15m; S15mt; Mitochondrial Small Ribosomal Subunit Protein US15m; MPR-S15; DC37
Gene ID	64960.0
SwissProt ID	P82914
Immunogen	A synthesized peptide derived from human MRPS15

Background

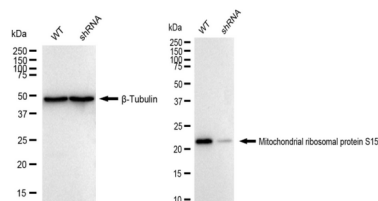
Mammalian mitochondrial ribosomal proteins are encoded by nuclear genes and help in protein synthesis within the

mitochondrion. Mitochondrial ribosomes (mitoribosomes) consist of a small 28S subunit and a large 39S subunit. They have an estimated 75% protein to rRNA composition compared to prokaryotic ribosomes, where this ratio is reversed. Another difference between mammalian mitoribosomes and prokaryotic ribosomes is that the latter contain a 5S rRNA. Among different species, the proteins comprising the mitoribosome differ greatly in sequence, and sometimes in biochemical properties, which prevents easy recognition by sequence homology. This gene encodes a 28S subunit protein that belongs to the ribosomal protein S15P family. The encoded protein is more than two times the size of its E. coli counterpart, with the 12S rRNA binding sites conserved. Between human and mouse, the encoded protein is the least conserved among small subunit ribosomal proteins. Pseudogenes corresponding to this gene are found on chromosomes 15q and 19q. [provided by RefSeq, Jul 2008]

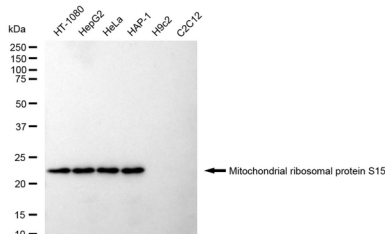
Research Area

Epigenetics and Nuclear Signaling

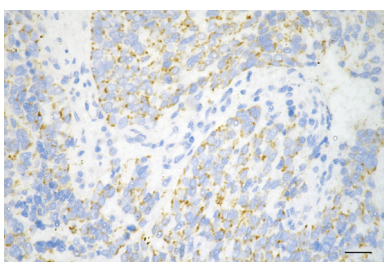
Image Data



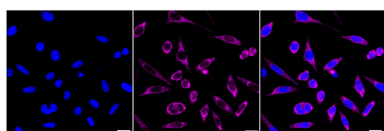
Western blotting analysis using Mitochondrial ribosomal protein S15 antibody (KVA01016). Mitochondrial ribosomal protein S15 expression in wild type (WT) and Mitochondrial ribosomal protein S15 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with Mitochondrial ribosomal protein S15 antibody (KVA01016, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



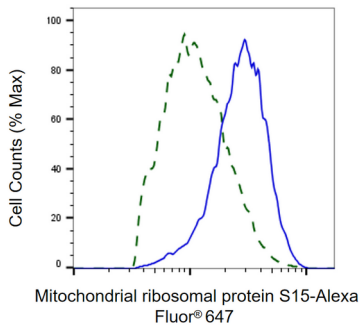
Western blotting analysis using Mitochondrial ribosomal protein S15 antibody (KVA01016). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Mitochondrial ribosomal protein S15 antibody (KVA01016, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



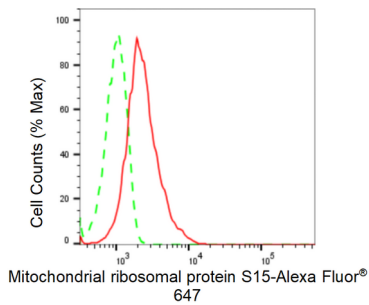
Immunohistochemistry was performed on paraffin-embedded human breast carcinoma using mitochondrial ribosomal protein S15 antibody (KVA01016, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunocytochemical staining of HepG2 cells with Mitochondrial ribosomal protein S15 antibody (KVA01016, 1:1,000). Nuclei were stained blue with DAPI; Mitochondrial ribosomal protein S15 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 Mitochondrial ribosomal protein S15 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Mitochondrial ribosomal protein S15 antibody (KVA01016, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Mitochondrial ribosomal protein S15 expression in HepG2 cells using Mitochondrial ribosomal protein S15 antibody (KVA01016, 1:2,000). Green, isotype control; red, Mitochondrial ribosomal protein S15.