# [KO Validated] MRPL21 Rabbit mAb

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Catalog No.: A26947 KO Validated Recombinant

# **Basic Information**

### **Observed MW**

21kDa

#### **Calculated MW**

13kDa/22kDa

### Category

Primary antibody

### **Applications**

WB,IHC-P,IF/ICC,ELISA

### **Cross-Reactivity**

Human, Mouse, Rat

#### CloneNo number

ARC71768

# **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 39S subunit protein. Multiple transcript variants encoding different isoforms were identified through sequence analysis although some may be subject to nonsense-mediated decay (NMD).

# **Recommended Dilutions**

**WB** 1:6000 - 1:26000

1:200 - 1:600 **IHC-P** 

1:100 - 1:400 IF/ICC

Recommended starting **ELISA** 

> concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.

# **Immunogen Information**

**Gene ID Swiss Prot** 219927 Q7Z2W9

### **Immunogen**

A synthetic peptide corresponding to a sequence within amino acids 40-140 of human MRPL21(NP\_852615.1).

### **Synonyms**

L21mt; bL21m; MRP-L21

## **Contact**

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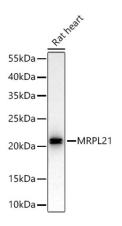
### **Product Information**

Source Isotype **Purification** Rabbit Affinity purification IgG

#### Storage

Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.09% Sodium azide, 0.05% BSA, 50% glycerol, pH7.3.



Western blot analysis of lysates from Rat heart using [KD Validated] MRPL21 Rabbit mAb (A26947) at 1:6000 dilution incubated overnight at  $4^{\circ}$ C.

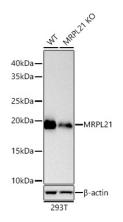
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.

Lysates/proteins: 25 µg per lane.

Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

Exposure time: 45s.



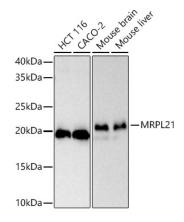
Western blot analysis of lysates from wild type (WT) and MRPL21 knockdown (KD) 293T cells using [KD Validated] MRPL21 Rabbit mAb (A26947) at 1:13000 dilution incubated overnight at  $4^{\circ}$ C. Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.

Lysates/proteins: 25 µg per lane.

Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

Exposure time: 45s.



Western blot analysis of various lysates using [KO Validated] MRPL21 Rabbit mAb (A26947) at 1:13000 dilution incubated overnight at  $4^{\circ}$ C.

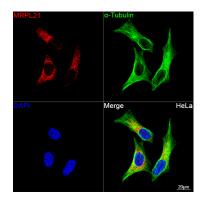
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.

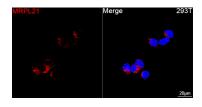
Lysates/proteins: 25 µg per lane.

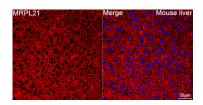
Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

Exposure time: 45s.



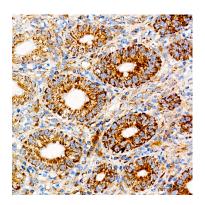




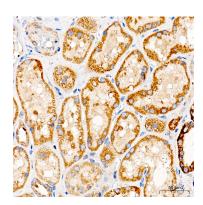
Confocal imaging of HeLa cells using [KD Validated] MRPL21 Rabbit mAb (A26947, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with  $\alpha$ -Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.

Confocal imaging of 293T cells using [KD Validated] MRPL21 Rabbit mAb (A26947, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Objective: 100x.

Confocal imaging of paraffin-embedded Mouse liver tissue using [KD Validated] MRPL21 Rabbit mAb (A26947, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IF staining. Objective: 40x.



Immunohistochemistry analysis of paraffinembedded Human colon tissue using [KD Validated] MRPL21 Rabbit mAb (A26947) at a dilution of 1:600 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffinembedded Human kidney tissue using [KD Validated] MRPL21 Rabbit mAb (A26947) at a dilution of 1:600 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.