

For Research Use Only

# MRPL12 Polyclonal antibody

Catalog Number: 14795-1-AP

Featured Product

34 Publications



## Basic Information

### Catalog Number:

14795-1-AP

### Size:

150ul, Concentration: 500 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG6504

### GenBank Accession Number:

BC002344

### GeneID (NCBI):

6182

### UNIPROT ID:

P52815

### Full Name:

mitochondrial ribosomal protein L12

### Calculated MW:

21 kDa

### Observed MW:

21 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:1000-1:4000

IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

IF/ICC 1:250-1:1000

## Applications

### Tested Applications:

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

### Cited Applications:

WB, IHC, IF, IP, CoIP

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, zebrafish

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

WB: COLO 320 cells, HeLa cells, MCF-7 cells

IP: HeLa cells,

IHC: human colon cancer tissue,

IF/ICC: HepG2 cells,

## Background Information

Mammalian MRPL12 was the first mitochondrial ribosomal protein to be characterized, and is encoded by a nuclear gene. The protein forms a homodimer, localizes predominantly to mitochondria and binds to the large mitochondrial ribosomal subunit [PMID:862670]. It is required for CycD/Cdk4-induced cell growth. In addition, forming a ribosomal stalk with MRPL7, MRPL12 is required for the recruitment of translation elongation factors Tu and G to the large ribosomal subunit [PMID:12370014]. It also a part of a novel regulatory mechanism that coordinates mitochondrial transcription with translation and/or ribosome biogenesis during human mitochondrial gene expression. The antibody reacts specifically with 21kDa MRPL12 protein.

## Notable Publications

Author	Pubmed ID	Journal	Application
Hong-Phuc Cudré-Cung	27599447	Mol Genet Metab	
Luis Daniel Cruz-Zaragoza	34672953	Cell	WB
Jessica Nouws	26586915	J Biol Chem	WB

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

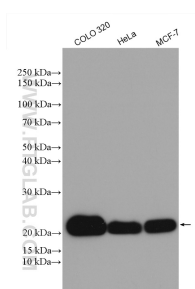
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

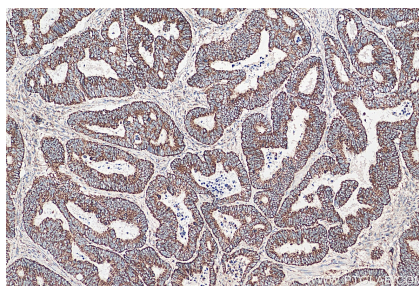
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

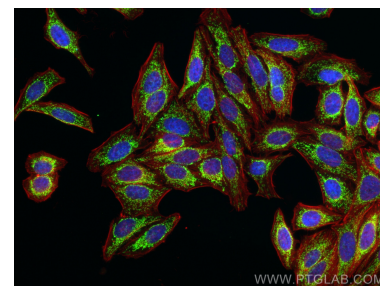
## Selected Validation Data



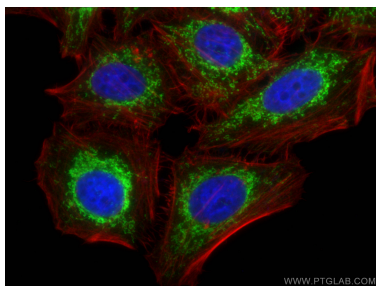
Various lysates were subjected to SDS PAGE followed by western blot with 14795-1-AP (MRPL12 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



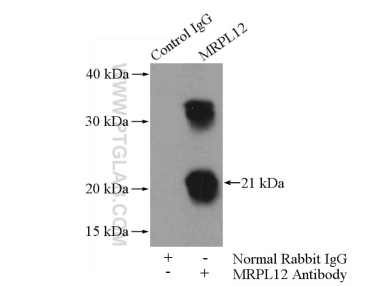
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 14795-1-AP (MRPL12 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



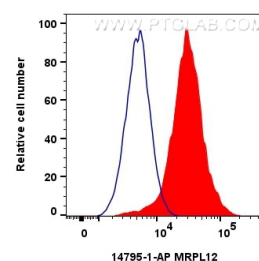
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using MRPL12 antibody (14795-1-AP) at dilution of 1:500 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



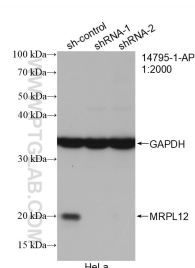
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using MRPL12 antibody (14795-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



IP result of anti-MRPL12 (IP:14795-1-AP, 4ug; Detection:14795-1-AP 1:500) with HeLa cells lysate 2000ug.



$1 \times 10^6$  HeLa cells were intracellularly stained with 0.4 ug MRPL12 Polyclonal antibody (14795-1-AP) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.4 ug Rabbit IgG control Rabbit PolyAb (30000-O-AP) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



WB result of MRPL12 antibody (14795-1-AP; 1:2000; incubated at room temperature for 1.5 hours) with sh-Control and sh-MRPL12 transfected HeLa cells.