

For Research Use Only

# MRPL12 Polyclonal antibody

Catalog Number: 14795-1-AP

Featured Product

28 Publications



## Basic Information

<b>Catalog Number:</b> 14795-1-AP	<b>GenBank Accession Number:</b> BC002344	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul, Concentration: 500 µg/ml by Nanodrop and 300 µg/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 6182	<b>Recommended Dilutions:</b> WB 1:1000-1:4000 IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
<b>Source:</b> Rabbit	<b>Full Name:</b> mitochondrial ribosomal protein L12	<b>IHC 1:50-1:500</b> <b>IF 1:250-1:1000</b>
<b>Isotype:</b> IgG	<b>Calculated MW:</b> 21 kDa	
<b>Immunogen Catalog Number:</b> AG6504	<b>Observed MW:</b> 21 kDa	

## Applications

**Tested Applications:**  
FC, IF, IHC, IP, WB, ELISA

**Cited Applications:**  
CoIP, IF, IHC, IP, WB

**Species Specificity:**  
human, mouse, rat

**Cited Species:**  
human, rat, mouse

**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:** 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

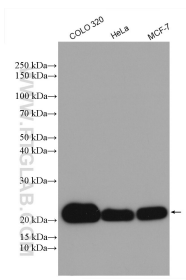
For technical support and original validation data for this product please contact:

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

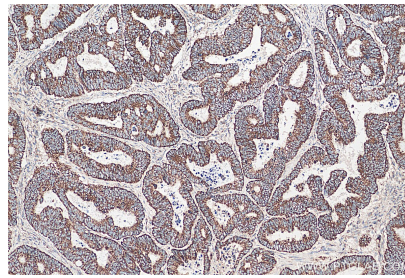
E: proteintech@ptglab.com  
W: ptglab.com

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

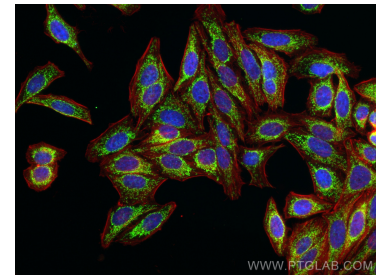
## Selected Validation Data



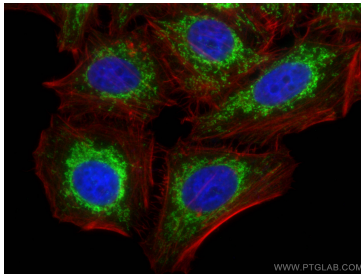
Various lysates were subjected to SDS PAGE followed by western blot with 14795-1-AP (MRPL12 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



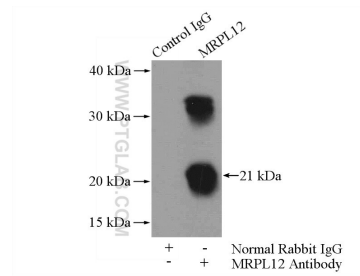
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 14795-1-AP (MRPL12 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



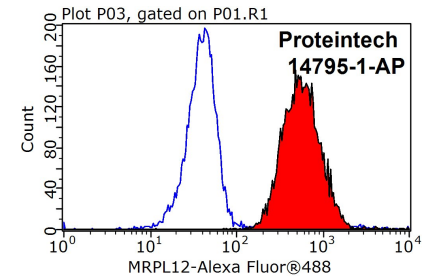
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using MRPL12 antibody (14795-1-AP) at dilution of 1:500 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



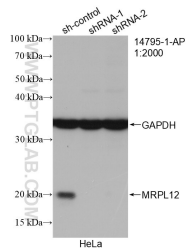
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using MRPL12 antibody (14795-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



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



1X10<sup>6</sup> HeLa cells were stained with 0.2ug MRPL12 antibody (14795-1-AP, red) and control antibody (blue). Fixed with 90% MeOH blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1000.



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.