

For Research Use Only

MRPL12 Polyclonal antibody

Catalog Number: 14795-1-AP

Featured Product

29 Publications



Basic Information

Catalog Number:

14795-1-AP

Size:

150ul, Concentration: 500 µg/ml by Nanodrop and 300 µg/ml by Bradford method using BSA as the standard;

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 µg for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

IF 1:250-1:1000

Applications

Tested Applications:

WB, IP, IF, FC, IHC, ELISA

Cited Applications:

WB, IP, IF, IHC, CoIP

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

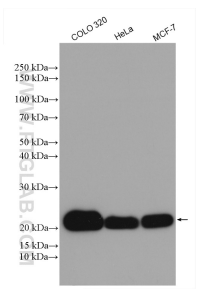
For technical support and original validation data for this product please contact:

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

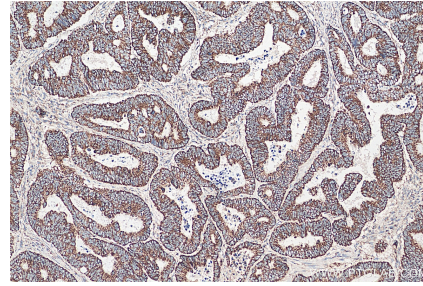
E: proteintech@ptglab.com
W: ptglab.com

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

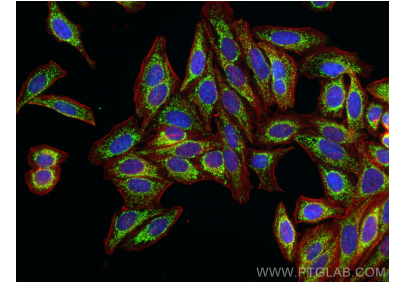
Selected Validation Data



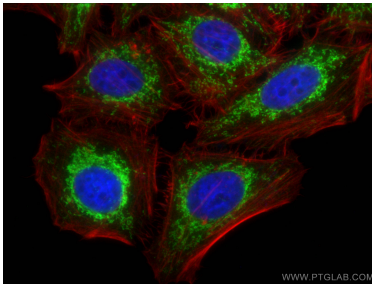
Various lysates were subjected to SDS PAGE followed by western blot with 14795-1-AP (MRPL12 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



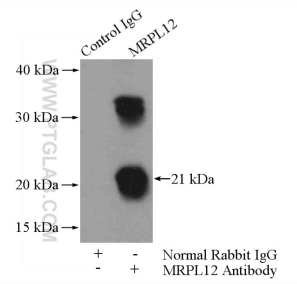
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 14795-1-AP (MRPL12 antibody) at dilution of 1:200 (under 10x Lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



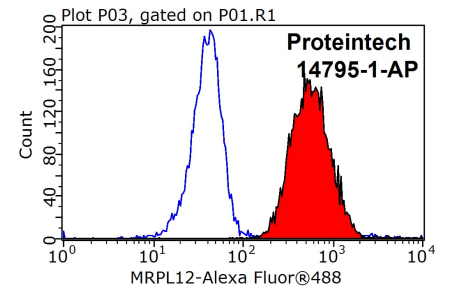
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using MRPL12 antibody (14795-1-AP) at dilution of 1:500 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



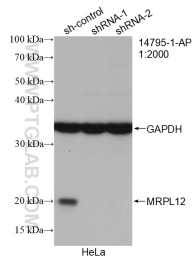
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using MRPL12 antibody (14795-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



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



1X10⁶ 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.