

**MRPL12 Antibody (monoclonal) (M01)****Mouse monoclonal antibody raised against a full length recombinant MRPL12.****Catalog # AT2902a****Specification**

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**MRPL12 Antibody (monoclonal) (M01) - Product Information**

Application	WB, IHC, IF, E
Primary Accession	<a href="#">P52815</a>
Other Accession	<a href="#">BC002344</a>
Reactivity	Human
Host	mouse
Clonality	Monoclonal
Isotype	IgG1 kappa
Calculated MW	21348

**MRPL12 Antibody (monoclonal) (M01) - Additional Information****Gene ID** 6182**Other Names**

39S ribosomal protein L12, mitochondrial, L12mt, MRP-L12, 5c5-2, MRPL12, RPML12

**Target/Specificity**

MRPL12 (AAH02344, 1 a.a. ~ 198 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

**Dilution**

WB~~1:500~1000

IHC~~1:100~500

IF~~1:50~200

E~~N/A

**Format**

Clear, colorless solution in phosphate buffered saline, pH 7.2 .

**Storage**

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

**Precautions**

MRPL12 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

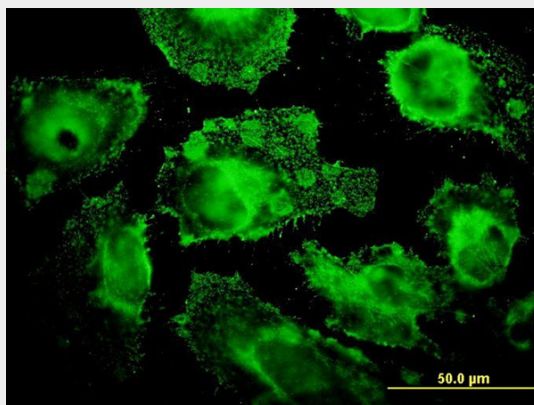
**MRPL12 Antibody (monoclonal) (M01) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

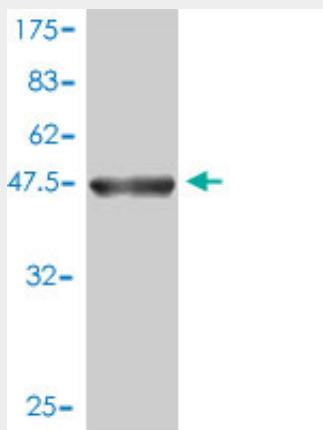
- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

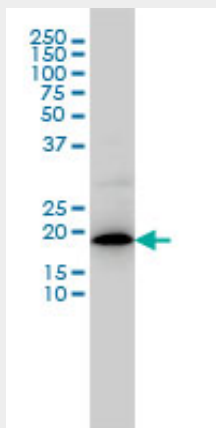
## MRPL12 Antibody (monoclonal) (M01) - Images



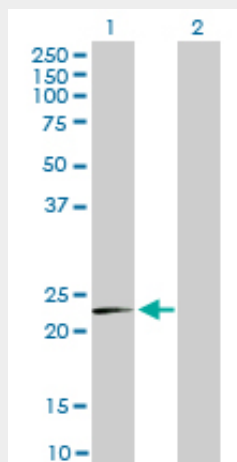
Immunofluorescence of monoclonal antibody to MRPL12 on HeLa cell. [antibody concentration 10 ug/ml]



Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (47.52 KDa) .



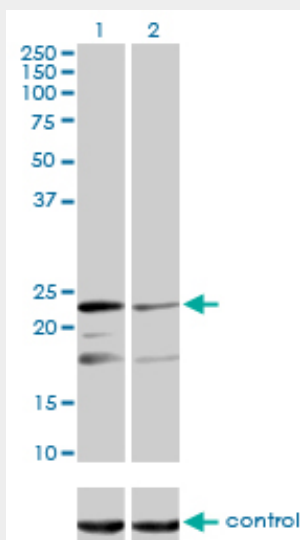
MRPL12 monoclonal antibody (M01), clone 3B12-1A3 Western Blot analysis of MRPL12 expression in COLO 320 HSR ( (Cat # AT2902a )



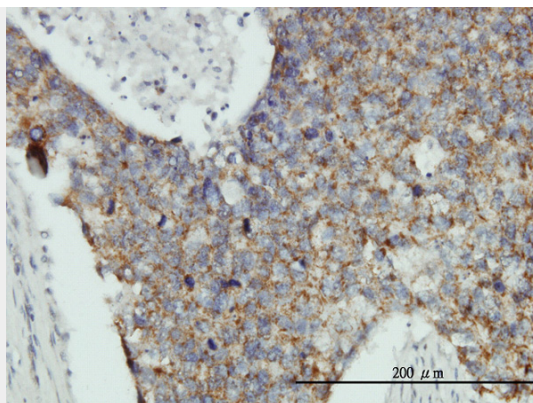
Western Blot analysis of MRPL12 expression in transfected 293T cell line by MRPL12 monoclonal antibody (M01), clone 3B12-1A3.

Lane 1: MRPL12 transfected lysate(21.3 KDa).

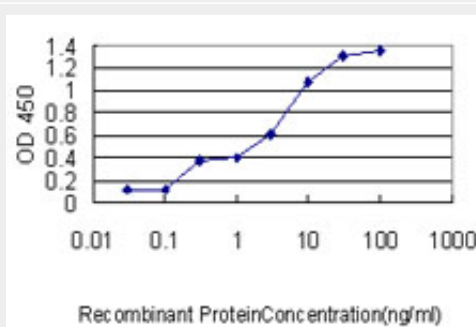
Lane 2: Non-transfected lysate.



Western blot analysis of MRPL12 over-expressed 293 cell line, cotransfected with MRPL12 Validated Chimera RNAi ( (Cat # AT2902a )



Immunoperoxidase of monoclonal antibody to MRPL12 on formalin-fixed paraffin-embedded human breast cancer tissue. [antibody concentration 3 ug/ml]



Detection limit for recombinant GST tagged MRPL12 is approximately 0.03ng/ml as a capture antibody.

### MRPL12 Antibody (monoclonal) (M01) - 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 which forms homodimers. In prokaryotic ribosomes, two L7/L12 dimers and one L10 protein form the L8 protein complex.

### MRPL12 Antibody (monoclonal) (M01) - References

1. A bifunctional protein regulates mitochondrial protein synthesis. Richman TR, Davies SM, Shearwood AM, Ermer JA, Scott LH, Hibbs ME, Rackham O, Filipovska A. *Nucleic Acids Res.* 2014 Mar 5;42(5):1515-25.
2. Oxygen Consumption Can Regulate the Growth of Tumors, a New Perspective on the Warburg Effect. Chen Y, Cairns R, Papandreou I, Koong A, Denko NC. *PLoS One.* 2009 Sep 15;4(9):e7033.
3. Human mitochondrial ribosomal protein MRPL12 interacts directly with mitochondrial RNA polymerase to modulate mitochondrial gene expression. Wang Z, Cotney J, Shadel GS. *J Biol Chem.* 2007 Apr 27;282(17):12610-8. Epub 2007 Mar 2.