

MRPL12 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a full length recombinant MRPL12.

Catalog # AT2902a

Specification

MRPL12 Antibody (monoclonal) (M01) - Product Information

Application	IF, WB, IHC, E
Primary Accession	P52815
Other Accession	BC002344
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

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.

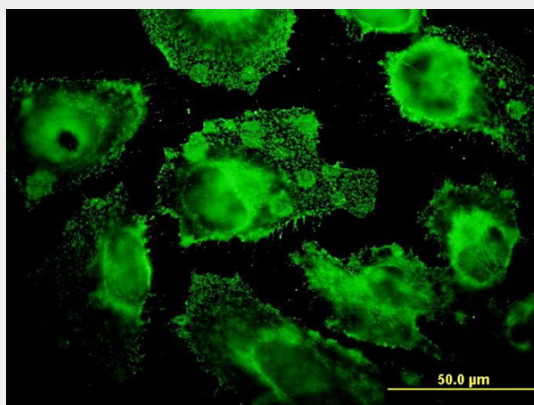
MRPL12 Antibody (monoclonal) (M01) - Protocols

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

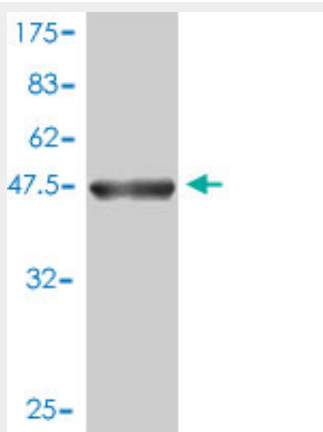
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)

- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

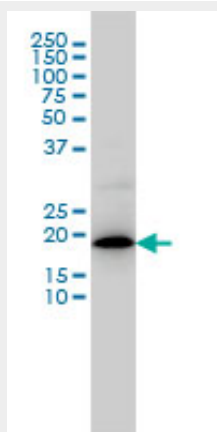
MRPL12 Antibody (monoclonal) (M01) - Images



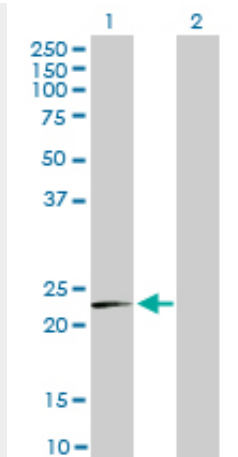
Immunofluorescence of monoclonal antibody to MRPL12 on HeLa cell. [antibody concentration 10 ug/ml]



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



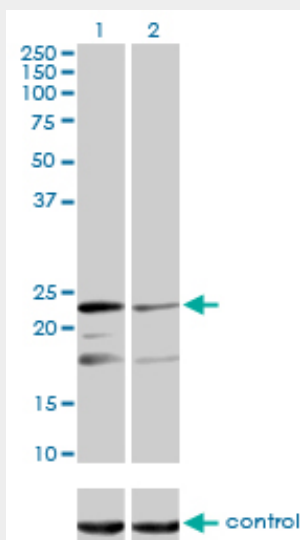
MRPL12 monoclonal antibody (M01), clone 3B12-1A3 Western Blot analysis of MRPL12 expression in COLO 320 HSR (Cat # AT2902a)



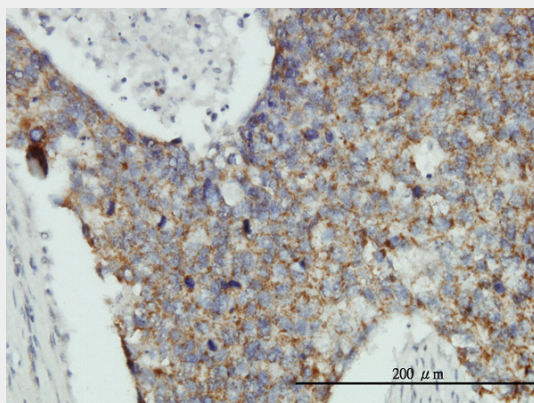
Western Blot analysis of MRPL12 expression in transfected 293T cell line by MRPL12 monoclonal antibody (M01), clone 3B12-1A3.

Lane 1: MRPL12 transfected lysate(21.3 KDa).

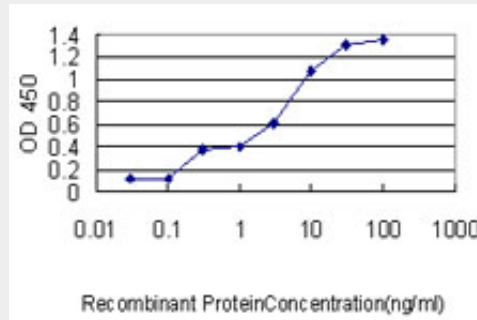
Lane 2: Non-transfected lysate.



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(9):e7033.
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.