

**MRPL42 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO2303a****Specification****MRPL42 Antibody - Product Information**

Application	E, WB, IF, FC, IHC
Primary Accession	<a href="#">O9Y6G3</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	16.7kDa KDa

**Description**

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 protein identified as belonging to both the 28S and the 39S subunits. Alternative splicing results in multiple transcript variants. Pseudogenes corresponding to this gene are found on chromosomes 4q, 6p, 6q, 7p, and 15q.

**Immunogen**

Purified recombinant fragment of human MRPL42 (AA: 142-203) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**MRPL42 Antibody - Additional Information**

**Gene ID** 28977

**Other Names**

39S ribosomal protein L42, mitochondrial, L42mt, MRP-L42, 28S ribosomal protein S32, mitochondrial, MRP-S32, S32mt, 39S ribosomal protein L31, mitochondrial, L31mt, MRP-L31, MRPL42, MRPL31, MRPS32, RPML31

**Dilution**

E~~1/10000  
WB~~1/500 - 1/2000  
IF~~1/300  
FC~~1/200 - 1/400  
IHC~~1/200 - 1/1000

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small

aliquots to prevent freeze-thaw cycles.

### Precautions

MRPL42 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## MRPL42 Antibody - Protein Information

**Name** MRPL42

**Synonyms** MRPL31, MRPS32, RPML31

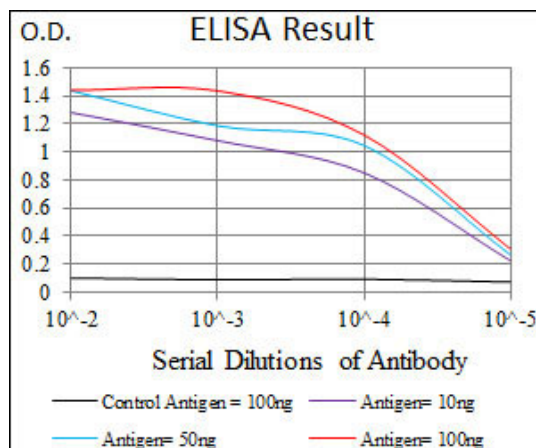
**Cellular Location**

Mitochondrion

## MRPL42 Antibody - 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](#)



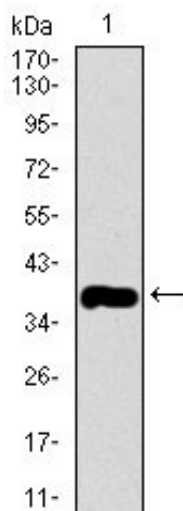


Figure 1: Western blot analysis using MRPL42 mAb against human MRPL42 recombinant protein. (Expected MW is 37.9 kDa)

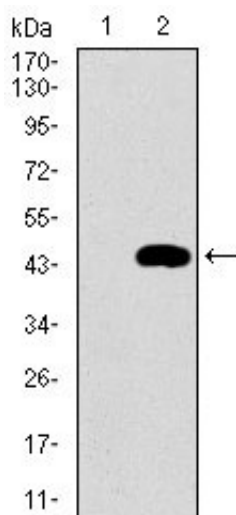


Figure 2: Western blot analysis using MRPL42 mAb against HEK293 (1) and MRPL42 (AA: 142-203)-hlgGfc transfected HEK293 (2) cell lysate.

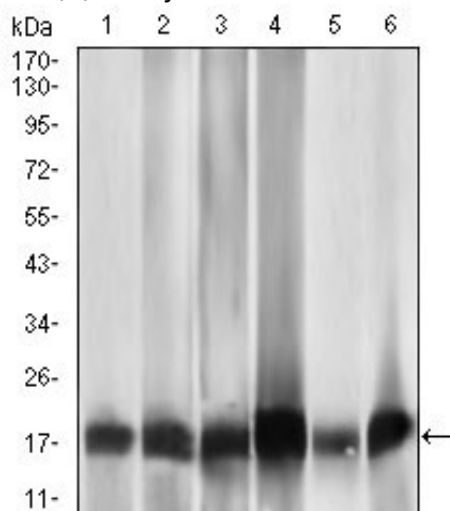


Figure 3: Western blot analysis using MRPL42 mouse mAb against HL7702 (1), HepG2 (2), SMMC-7721 (3), HEK293 (4), HeLa (5), and Raji (6) cell lysate.

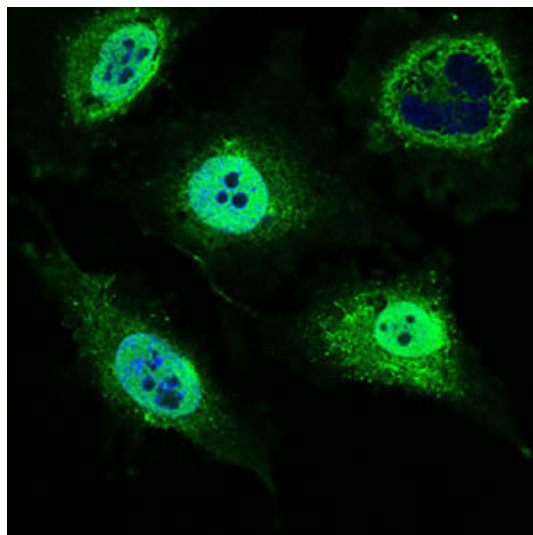


Figure 4: Immunofluorescence analysis of HeLa cells using MRPL42 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

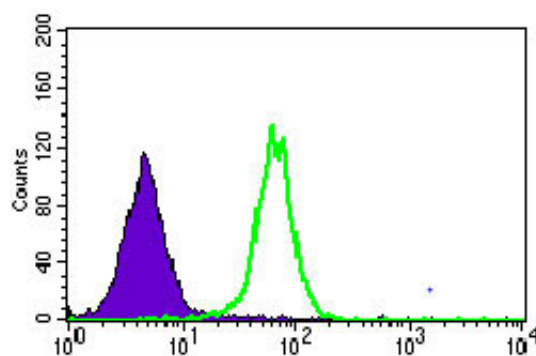


Figure 5: Flow cytometric analysis of HepG2 cells using MRPL42 mouse mAb (green) and negative control (purple).

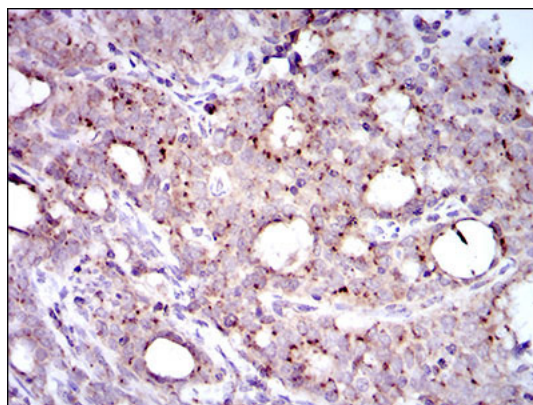


Figure 6: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using MRPL42 mouse mAb with DAB staining.

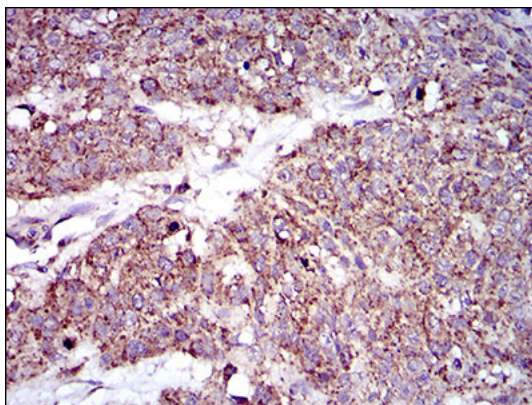


Figure 7: Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using MRPL42 mouse mAb with DAB staining.

#### **MRPL42 Antibody - References**

1. J Biol Chem. 2001 Nov 23;276(47):43958-69. 2. Genomics. 2003 May;81(5):468-80.