

MPS1 Antibody
Mouse Monoclonal Antibody to MPS1
Catalog # AO1282b**Specification**

MPS1 Antibody - Product Information

Application	ICC, IF
Primary Accession	P42677
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Calculated MW	9461

Description

MPS1, also known as RPS27. It is a ribosomal protein. Ribosomes, the organelles that catalyze protein synthesis, consist of a small 40S subunit and a large 60S subunit. Together these subunits are composed of 4 RNA species and approximately 80 structurally distinct proteins. MPS1 is a component of the 40S subunit. The protein belongs to the S27E family of ribosomal proteins. It contains a C4-type zinc finger domain that can bind to zinc. The encoded protein has been shown to be able to bind to nucleic acid. It is located in the cytoplasm as a ribosomal component, but it has also been detected in the nucleus. Studies in rat indicate that ribosomal protein S27 is located near ribosomal protein S18 in the 40S subunit and is covalently linked to translation initiation factor eIF3. As is typical for genes encoding ribosomal proteins, there are multiple processed pseudogenes of this gene dispersed through the genome.

Immunogen

Purified recombinant fragment of MPS1 expressed in E. Coli.

MPS1 Antibody - Additional Information

Gene ID 6232

Other Names

40S ribosomal protein S27, Metallopan-stimulin 1, MPS-1, RPS27, MPS1

Target/Specificity

Purified recombinant fragment of MPS1 expressed in E. Coli.

Dilution

ICC~~1:200~~1000

IF~~1:200~1000.

Format

Ascitic fluid containing 0.03% sodium azide.

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

MPS1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

MPS1 Antibody - Protein Information

Name RPS27 ([HGNC:10416](#))

Synonyms MPS1

Function

Component of the small ribosomal subunit (PubMed:23636399, PubMed:8706699). The ribosome is a large ribonucleoprotein complex responsible for the synthesis of proteins in the cell (PubMed:23636399). Required for proper rRNA processing and maturation of 18S rRNAs (PubMed:25424902). Part of the small subunit (SSU) processome, first precursor of the small eukaryotic ribosomal subunit. During the assembly of the SSU processome in the nucleolus, many ribosome biogenesis factors, an RNA chaperone and ribosomal proteins associate with the nascent pre-rRNA and work in concert to generate RNA folding, modifications, rearrangements and cleavage as well as targeted degradation of pre-ribosomal RNA by the RNA exosome (PubMed:34516797).

Cellular Location

Cytoplasm. Nucleus, nucleolus

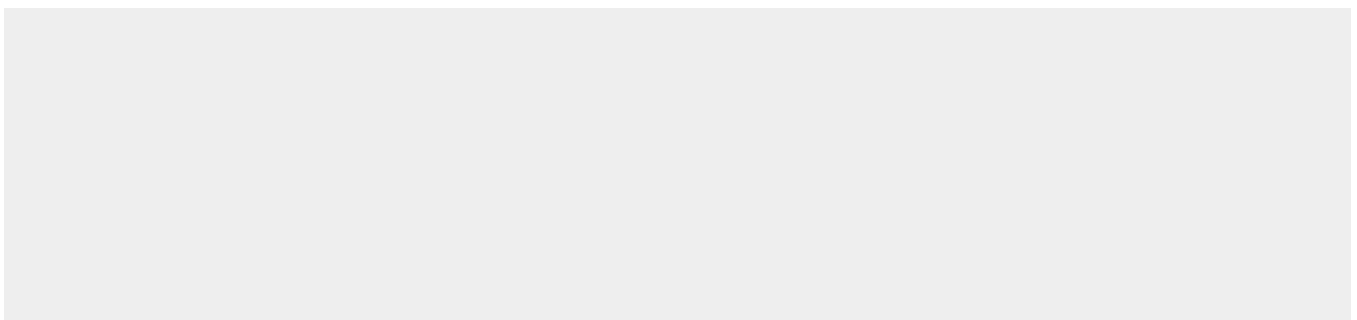
Tissue Location

Expressed in a wide variety of actively proliferating cells and tumor tissues.

MPS1 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](#)

MPS1 Antibody - Images

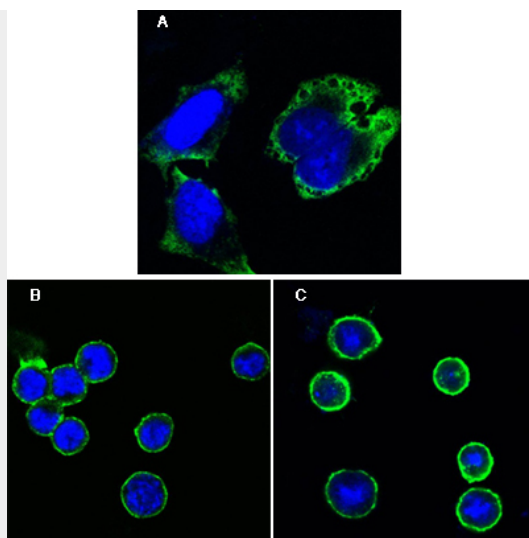


Figure 1: Confocal immunofluorescence analysis of Hela cells (A), BCBL-1 cells (B) and L1210 cells (C) using MPS1 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

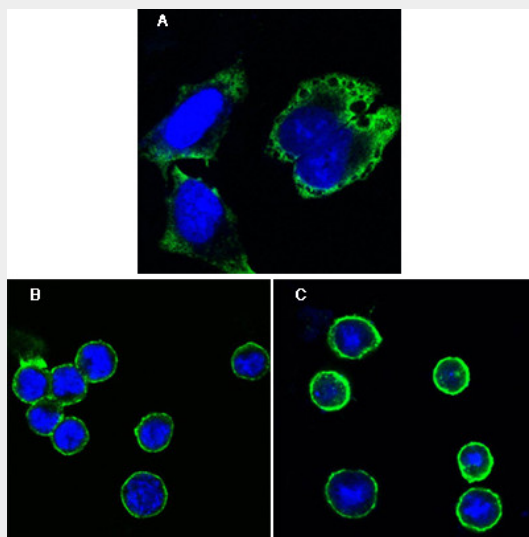


Figure 1: Confocal immunofluorescence analysis of Hela cells (A), BCBL-1 cells (B) and L1210 cells (C) using anti-MPS1 monoclonal antibody (green). Blue: DRAQ5 fluorescent DNA dye.

MPS1 Antibody - References

1. Biochem Cell Biol. 1995 Nov-Dec;73(11-12):933-47.
2. Mol Biol Cell. 2003 Apr;14(4):1638-51.
3. Cell. 2008 Jan 25;132(2):233-46.