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Goat Anti-MPS1 / RPS27 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1681a

Specification

Goat Anti-MPS1 / RPS27 Antibody - Product Information

Application	**WB**
Primary Accession	P42677
Other Accession	NP_001021, 6232, 57294 (mouse), 94266 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**9461**

Goat Anti-MPS1 / RPS27 Antibody - Additional Information

Gene ID 6232

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

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

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
Goat Anti-MPS1 / RPS27 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-MPS1 / RPS27 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:<a

href="http://www.uniprot.org/citations/23636399" target="_blank">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.

Goat Anti-MPS1 / RPS27 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 Cytomety
- Cell Culture

Goat Anti-MPS1 / RPS27 Antibody - Images

AF1681a (0.03 µg/ml) staining of Jurkat lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-MPS1 / RPS27 Antibody - Background

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. This gene encodes a ribosomal protein that 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.

Goat Anti-MPS1 / RPS27 Antibody - References

Synchronised phosphorylation of BNIP3, Bcl-2 and Bcl-xL in response to microtubule-active drugs is JNK-independent and requires a mitotic kinase. Mellor HR, et al. Biochem Pharmacol, 2010 Jun 1. PMID 20100468.
Extraribosomal function of metallopanstimulin-1: reducing paxillin in head and neck squamous cell carcinoma and inhibiting tumor growth. Dai Y, et al. Int J Cancer, 2010 Feb 1. PMID 19642098.
Phosphoregulation of human Mps1 kinase. Tyler RK, et al. Biochem J, 2009 Jan 1. PMID 18680479.
Mps1 phosphorylates Borealin to control Aurora B activity and chromosome alignment. Jelluma N, et al. Cell, 2008 Jan 25. PMID 18243099.
PRP4 is a spindle assembly checkpoint protein required for MPS1, MAD1, and MAD2 localization to the kinetochores. Montembault E, et al. J Cell Biol, 2007 Nov 19. PMID 17998396.