10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

Anti-MPS1 Picoband Antibody
Catalog # ABO11711

Specification

Anti-MPS1 Picoband Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P42677
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for 40S ribosomal protein S27(RPS27) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-MPS1 Picoband Antibody - Additional Information

Gene ID 6232

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

Calculated MW
9461 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

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

Protein Name
40S ribosomal protein S27

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E. coli-derived human MPS1 recombinant protein (Position: P2-H84). Human MPS1 shares 100% amino acid (aa) sequence identity with both mouse and rat MPS1.

Purification
Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-MPS1 Picoband 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.

Anti-MPS1 Picoband 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

Anti-MPS1 Picoband Antibody - Images

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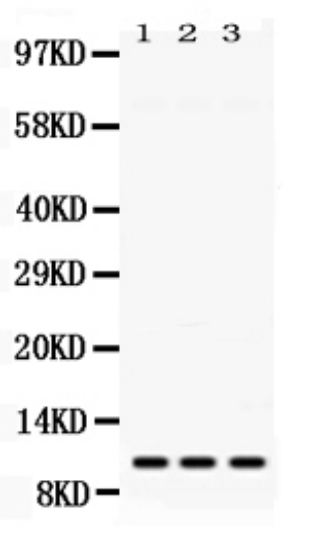
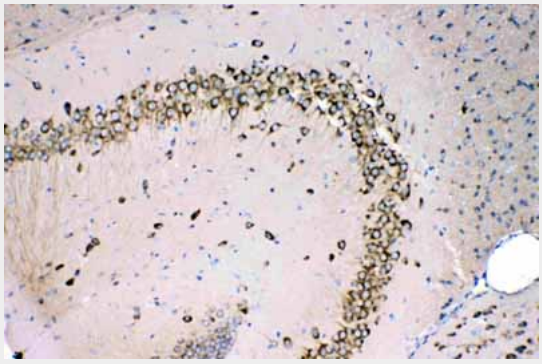
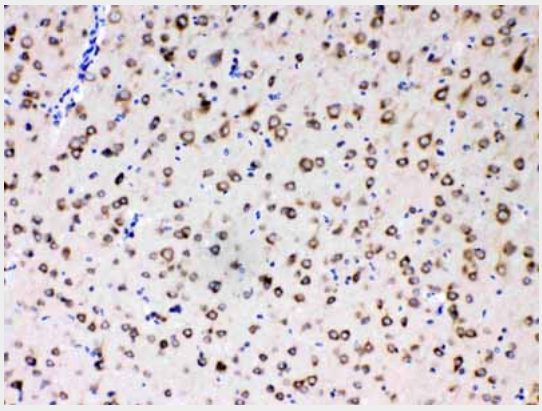


Western blot analysis of MPS1 expression in rat spleen extract (lane 1), mouse liver extract (lane 2) and HELA whole cell lysates (lane 3). MPS1 at 10KD was detected using rabbit anti- MPS1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11711) at 0.5 Î¼g/mL. The blot was developed using chemiluminescence (ECL) method .



MPS1 was detected in paraffin-embedded sections of mouse brain tissues using rabbit anti- MPS1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11711) at 1 Î¼g/mL. The immunohistochemical section was developed using SABC method .



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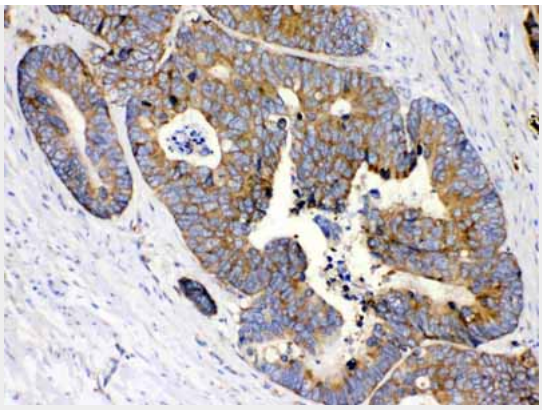

MPS1 was detected in paraffin-embedded sections of human intetsinal cancer tissues using rabbit anti- MPS1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11711) at 1 ??g/mL. The immunohistochemical section was developed using SABC method .

Anti-MPS1 Picoband Antibody - Background

40S ribosomal protein S27, also known as metallopan-stimulin 1 or MPS-1, is a protein that in humans is encoded by the RPS27 gene. 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.