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Anti-RPS6 Antibody Picoband™ (monoclonal, 2H7)

Catalog # ABO14832

Specification

Anti-RPS6 Antibody Picoband™ (monoclonal, 2H7) - Product Information

Application	**WB, IHC, IF, ICC, FC**
Primary Accession	P62753
Host	**Mouse**
Isotype	**Mouse IgG1**
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-RPS6 Antibody Picoband™ (monoclonal, 2H7) . Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.

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

Anti-RPS6 Antibody Picoband™ (monoclonal, 2H7) - Additional Information

Gene ID 6194

Other Names
Small ribosomal subunit protein eS6, 40S ribosomal protein S6, Phosphoprotein NP33, RPS6 {ECO:0000303|PubMed:29563586, ECO:0000312|HGNC:HGNC:10429}

Calculated MW
29 kDa KDa

Application Details
Western blot, 0.1-0.5 µg/ml
 Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/ml
 Immunocytochemistry/Immunofluorescence, 2 µg/ml
 Flow Cytometry, 1-3 µg/1x10^6 cells

Subcellular Localization
Cytosol. Cytosolic small ribosomal subunit. Endoplasmic reticulum. Nucleus. Nucleoplasm. Nucleolus. Cell body. Cytoplasmic ribonucleoprotein granule. Dendrite. Membrane. Ribonucleoprotein complex. Small ribosomal subunit.

Contents
Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the N-terminus of human RPS6, identical to the related mouse and rat sequences.

Cross Reactivity
No cross-reactivity with other proteins.

Storage	**Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.**

Anti-RPS6 Antibody Picoband™ (monoclonal, 2H7) - Protein Information

Name RPS6 {ECO:0000303|PubMed:29563586, ECO:0000312|HGNC:HGNC:10429}

Function
Component of the 40S small ribosomal subunit (PubMed:23636399, PubMed:8706699). Plays an important role in controlling cell growth and proliferation through the selective translation of particular classes of mRNA (PubMed:17220279). 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

Anti-RPS6 Antibody Picoband™ (monoclonal, 2H7) - 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-RPS6 Antibody Picoband™ (monoclonal, 2H7) - Images

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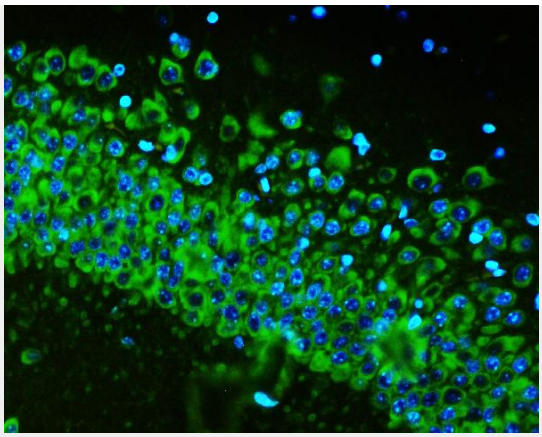

Figure 1. IF analysis of RPS6 using anti-RPS6 antibody (M01567)
RPS6 was detected in paraffin-embedded section of rat brain tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/mL mouse anti-RPS6 Antibody (M01567) overnight at 4°C. Biotin conjugated goat anti-mouse IgG (BA1001) was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using DyLight488 Conjugated Avidin (BA1128). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Anti-RPS6 Antibody Picoband™ (monoclonal, 2H7) - Background

Ribosomal protein S6 (rpS6) is a component of the 40S ribosomal subunit and is therefore thought to be involved in regulating translation. 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 cytoplasmic ribosomal protein that is a component of the 40S subunit. The protein belongs to the S6E family of ribosomal proteins. It is the major substrate of protein kinases in the ribosome, with subsets of five C-terminal serine residues phosphorylated by different protein kinases. Phosphorylation is induced by a wide range of stimuli, including growth factors, tumor-promoting agents, and mitogens. Dephosphorylation occurs at growth arrest. The protein may contribute to the control of cell growth and proliferation through the selective translation of particular classes of mRNA. As is typical for genes encoding ribosomal proteins, there are multiple processed pseudogenes of this gene dispersed through the genome. While the true function of rpS6 is currently under investigation, studies have shown that it is involved in the regulation of cell size, cell proliferation, and glucose homeostasis.