

Anti-PROM1 Antibody
Catalog # ABO11369**Specification**

Anti-PROM1 Antibody - Product Information

Application	WB
Primary Accession	O54990
Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Prominin-1(PROM1) detection. Tested with WB in Mouse;Rat.

Reconstitution

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

Anti-PROM1 Antibody - Additional Information

Gene ID 19126

Other Names

Prominin-1, Antigen AC133 homolog, Prominin-like protein 1, CD133, Prom1, Prom, Proml1

Calculated MW

97113 MW KDa

Application Details

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

Subcellular Localization

Apical cell membrane; Multi-pass membrane protein. Cell projection, microvillus membrane; Multi-pass membrane protein. Cell projection, cilium, photoreceptor outer segment. Endoplasmic reticulum . Endoplasmic reticulum-Golgi intermediate compartment . Found in extracellular membrane particles in various body fluids such as ventricular fluid of the developing brain and urine.

Tissue Specificity

In the submandibular gland, expressed on the apical side of epithelial cells. In the parotid gland, expressed in the intercalated ducts. In the sublingual gland, expressed in intercalated ducts. In the extraorbital lacrimal gland, expressed in the intercalated tubules and larger intralobular ducts. Expressed in the retina. Present in urine within small membrane particles (at protein level). In the embryo, expressed on the apical side of neuroepithelial cells and of other epithelia such as lung buds, gut and ureter buds. In the adult, expressed at the apical side of the kidney tubules and of the ependymal layer of the brain. Not expressed in gut, liver, lung, pituitary, adrenal, heart or spleen. Localized to the nascent disk membranes at the base of the rod outer segment in the retina (at protein level). .

Protein Name

Prominin-1

Contents

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

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of mouse PROM1(850-864aa KDHLVGVHNPVMTSP), identical to the related rat sequence.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, 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-PROM1 Antibody - Protein Information

Name Prom1

Synonyms Prom, Proml1

Function

May play a role in cell differentiation, proliferation and apoptosis. Binds cholesterol in cholesterol-containing plasma membrane microdomains and may play a role in the organization of the apical plasma membrane in epithelial cells. During early retinal development acts as a key regulator of disk morphogenesis (PubMed:19228982). Involved in regulation of MAPK and Akt signaling pathways. In neuroblastoma cells suppresses cell differentiation such as neurite outgrowth in a RET-dependent manner.

Cellular Location

Apical cell membrane; Multi-pass membrane protein. Cell projection, microvillus membrane; Multi-pass membrane protein. Cell projection, cilium, photoreceptor outer segment Endoplasmic reticulum. Endoplasmic reticulum-Golgi intermediate compartment. Note=Found in extracellular membrane particles in various body fluids such as ventricular fluid of the developing brain and urine

Tissue Location

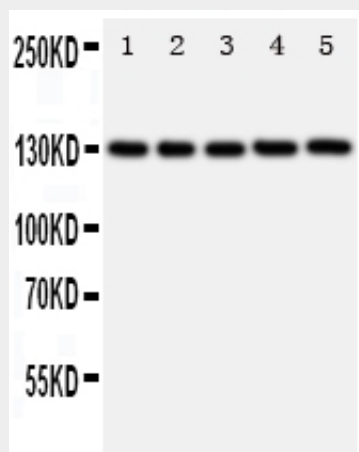
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Anti-PROM1 Antibody - Protocols

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](#)

Anti-PROM1 Antibody - Images



Anti-PROM1 antibody, ABO11369, Western blotting
Lane 1: Rat Thymus Tissue Lysate
Lane 2: Rat Liver Tissue Lysate
Lane 3: Mouse Liver Tissue Lysate
Lane 4: Mouse Kidney Tissue Lysate
Lane 5: Mouse Testis Tissue Lysate

Anti-PROM1 Antibody - Background

PROM1(Prominin 1), also called CD133, is a glycoprotein. Maw et al.(2000) noted that D4S1601 and D4S3048, which are located on human chromosome 4p15.3-p15.2, map within intronic sequences of the PROM1 gene. Torrente et al.(2004) reported that a subpopulation of circulating cells expressing AC133, a well-characterized marker of hematopoietic stem cells, also expresses early myogenic markers. Singh et al.(2003) prospectively isolated a CD133-positive cell subpopulation from human brain tumors that exhibited stem cell properties in vitro. However, the true measures of cancer stem cells are their capacity for self renewal and exact recapitulation of the original tumor.