

Anti-PROM1 Picoband Antibody
Catalog # ABO12960

Specification

Anti-PROM1 Picoband Antibody - Product Information

Application	WB
Primary Accession	O43490
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

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

Reconstitution

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

Anti-PROM1 Picoband Antibody - Additional Information

Gene ID 8842

Other Names

Prominin-1, Antigen AC133, Prominin-like protein 1, CD133, PROM1, PROML1

Calculated MW

97202 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, 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 cerebrospinal fluid, saliva, seminal fluid and urine.

Tissue Specificity

Isoform 1 is selectively expressed on CD34 hematopoietic stem and progenitor cells in adult and fetal bone marrow, fetal liver, cord blood and adult peripheral blood. Isoform 1 is not detected on other blood cells. Isoform 1 is also expressed in a number of non-lymphoid tissues including retina, pancreas, placenta, kidney, liver, lung, brain and heart. Found in saliva within small membrane particles. Isoform 2 is predominantly expressed in fetal liver, skeletal muscle, kidney, and heart as well as adult pancreas, kidney, liver, lung, and placenta. Isoform 2 is highly expressed in fetal liver, low in bone marrow, and barely detectable in peripheral blood. Isoform 2 is expressed on hematopoietic stem cells and in epidermal basal cells (at protein level). Expressed in adult retina by rod and cone photoreceptor cells (at protein level). .

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃N.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human PROM1 (808-841aa ALIFAVKLAKEYRRMDSYDDVETIPMKNMEN), different from the related mouse sequence by six amino acids.

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 Picoband Antibody - Protein Information

Name PROM1

Synonyms PROML1

Function

May play a role in cell differentiation, proliferation and apoptosis (PubMed:24556617). 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. Involved in regulation of MAPK and Akt signaling pathways. In neuroblastoma cells suppresses cell differentiation such as neurite outgrowth in a RET-dependent manner (PubMed:20818439).

Cellular Location

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Anti-PROM1 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 Cytometry](#)
- [Cell Culture](#)

Anti-PROM1 Picoband Antibody - Images



Figure 1. Western blot analysis of PROM1 using anti-PROM1 antibody (ABO12960).

Anti-PROM1 Picoband Antibody - Background

Prominin-1, also known as CD133, is a glycoprotein that in humans is encoded by the PROM1 gene. It is mapped to 4p15.32. Prominin-1 is a member of pentaspan transmembrane glycoproteins (5-transmembrane, 5-TM), which specifically localize to cellular protrusions. This gene encodes a pentaspan transmembrane glycoprotein. The protein localizes to membrane protrusions and is often expressed on adult stem cells, where it is thought to function in maintaining stem cell properties by suppressing differentiation. It has been proposed to act as an organizer of cell membrane topology. Prominin-1 was expressed not only on metastatic colon cancer cells, but also on differentiated colonic epithelium in both adult mice and humans.