

**Anti-PROM1 Picoband Antibody**  
**Catalog # ABO11853****Specification****Anti-PROM1 Picoband Antibody - Product Information**

Application	WB, IHC-P
Primary Accession	<a href="#">O43490</a>
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Prominin-1(PROM1) detection. Tested with WB, IHC-P in Human.

**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**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat<br>Western blot, 0.1-0.5 µg/ml, Human<br>

**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). .

**Protein Name**

Prominin-1

**Contents**Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg NaN<sub>3</sub>.**Immunogen**

E.coli-derived human PROM1 recombinant protein (Position: P531-H865). Human PROM1 shares 61% amino acid (aa) sequence identity with mouse PROM1.

**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.****Sequence Similarities**

Belongs to the prominin family.

**Anti-PROM1 Picoband Antibody - Protein Information****Name** PROM1**Synonyms** PROML1**Function**

May play a role in cell differentiation, proliferation and apoptosis (PubMed:<a href="http://www.uniprot.org/citations/24556617" target="\_blank">24556617</a>). 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:<a href="http://www.uniprot.org/citations/20818439" target="\_blank">20818439</a>).

**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 cerebrospinal fluid, saliva, seminal fluid and urine

**Tissue Location**

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

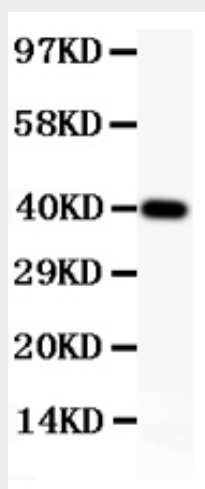
hematopoietic stem cells and in epidermal basal cells (at protein level). Expressed in adult retina by rod and cone photoreceptor cells (at protein level)

### Anti-PROM1 Picoband Antibody - Protocols

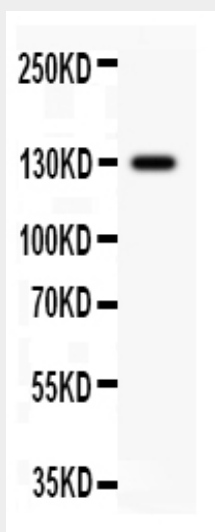
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

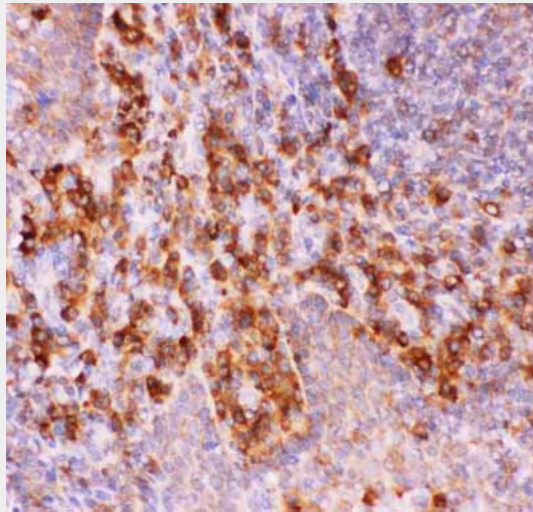
### Anti-PROM1 Picoband Antibody - Images



Anti-PROM1 Picoband antibody, ABO11853-1.jpg All lanes: Anti PROM1 (ABO11853) at 0.5ug/ml WB: Recombinant Human PROM1 Protein 0.5ng Predicted bind size: 40KD Observed bind size: 40KD



Anti-PROM1 Picoband antibody, ABO11853-2.jpg All lanes: Anti PROM1 (ABO11853) at 0.5ug/ml WB: MCF-7 Whole Cell Lysate at 40ug Predicted bind size: 97KD Observed bind size: 130KD



Anti-PROM1 Picoband antibody, ABO11853-3.JPG IHC(P): Human Tonsil Tissue

#### **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.