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Anti-PROM1/CD133 Antibody Picoband® (monoclonal, 8B6)

Catalog Number: M01767-3

About PROM1

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.

Overview

Product Name	Anti-PROM1/CD133 Antibody Picoband® (monoclonal, 8B6)
Reactive Species	Human, Mouse
Description	Boster Bio Anti-PROM1/CD133 Antibody Picoband® (monoclonal, 8B6) catalog # M01767-3. Tested in Flow Cytometry, WB applications. This antibody reacts with Human, Mouse. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, WB
Clonality	Monoclonal 8B6
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Storage Instructions	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.
Host	Mouse
Uniprot ID	O43490

Technical Details

Immunogen	E.coli-derived human PROM1/CD133 recombinant protein (Position: P531-H865). HumanPROM1/CD133 shares 61% amino acid (aa) sequence identity with mouse PROM1/CD133.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG2a

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Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5ug/ml, Human, Mouse Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human

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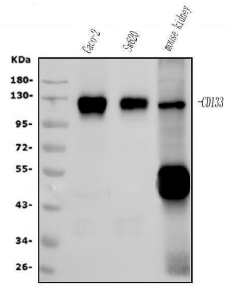
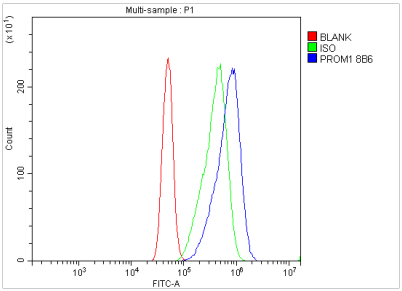
Anti-PROM1/CD133 Antibody Picoband® (monoclonal, 8B6) (M01767-3) Images



Western blot analysis of PROM1/CD133 using anti-PROM1/CD133 antibody (M01767-3). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human CACO-2 whole cell lysates, Lane 2: human SW620 whole cell lysates, Lane 3: mouse kidney tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-PROM1/CD133 antigen affinity purified monoclonal antibody (Catalog # M01767-3) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for PROM1/CD133 at approximately 120KD. The expected band size for PROM1/CD133 is at 120KD.



Flow Cytometry analysis of CACO-2 cells using anti-PROM1/CD133 antibody (M01767-3). Overlay histogram showing CACO-2 cells stained with M01767-3 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with mouse anti- PROM1/CD133 Antibody (M01767-3, 1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

3 Publications Citing This Product

1. PubMed ID: 10.1016/j.tranon.2016.12.002, Immunotherapy with Dendritic Cells Modified with Tumor-Associated Antigen Gene Demonstrates Enhanced Antitumor Effect Against Lung Cancer

2. PubMed ID: 31147892, Yawata T,Higashi Y,Kawanishi Y,Nakajo T,Fukui N,Fukuda H,Ueba T.CD146 is highly expressed in glioma stem cells and acts as a cell cycle regulator.J Neurooncol.2019 Aug;144(1):21-32.doi:10.1007/s11060-019-03200-4.Epub 2019 May 30.PMID:31147892.

3. PubMed ID: 32410622, Wang X,Zhou W,Li X,Ren J,Ji G,Du J,Tian W,Liu Q,Hao A. Graphene oxide suppresses the growth and malignancy of glioblastoma stem cell-like spheroids via epigenetic mechanisms. J Transl Med.2020 May 14;18(1):200. doi:10.1186/s12967-020-02359-z.PMID:32410622

Visit bosterbio.com/anti-prom1-picoband-trade-antibody-m01767-3-boster.html to see all 3 publications.

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