

## Anti-CD133/Prom1 Antibody Picoband®

Catalog Number: A01767-4

### 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

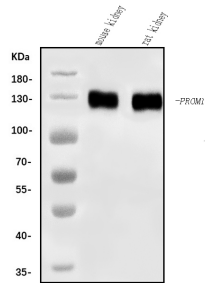
Product Name	Anti-CD133/Prom1 Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-CD133/Prom1 Antibody Picoband® catalog # A01767-4. Tested in ELISA, IHC, WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees 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	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 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	Rabbit
Uniprot ID	O54990

### Technical Details

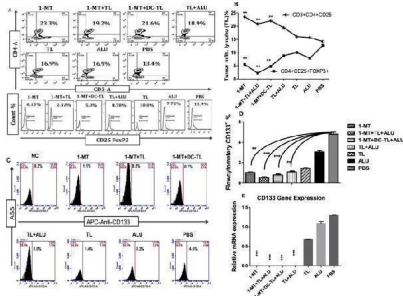
Immunogen	E.coli-derived mouse Prom1 recombinant protein (Position: E20-Y867).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
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, 0.1-0.25ug/ml, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Mouse, Rat ELISA, 0.1-0.5ug/ml, -

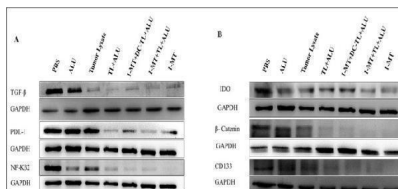
## Anti-CD133/Prom1 Antibody Picoband® (A01767-4) Images



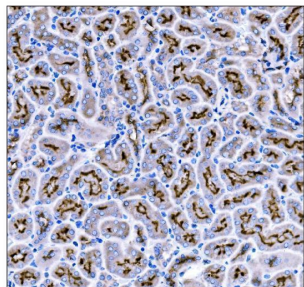
Western blot analysis of CD133/Prom1 using anti-CD133/Prom1 antibody (A01767-4). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: mouse kidney tissue lysates, Lane 2: rat kidney tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CD133/Prom1 antigen affinity purified polyclonal antibody (Catalog # A01767-4) at 0.25 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-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for CD133/Prom1 at approximately 130 kDa. The expected band size for CD133/Prom1 is at 130 kDa.



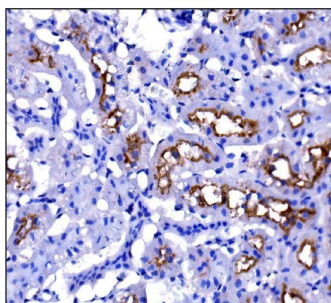
Analysis of tumor infiltrating lymphocytes by Flowcytometer showed that a population of Th1 cells (CD3 + CD4 + CD25 – ) was significantly increased inside tumors of 1-MT, 1-MT+TL and 1-MT+DC-TL treated groups in comparison to PBS ( A , B ). Meanwhile, Treg + cells (CD25 + FOXP3 + ) were significantly reduced in comparison to PBS. Cancer stem cells (CSC) CD133 + viability in tumor microenvironments of all tested groups showed that 1-MT, 1-MT+TL and 1-MT+DC-TL extremely reduced CD133 viability in comparison to PBS group ( C , D ), as well as the analysis of relative mRNA showed that CD133 gene expression was significantly declined in 1-MT+TL and 1-MT+DC-TL treated groups in comparison to PBS group ( E ). These results indicated that 1-MT significantly enhanced TL to elicit immunosurveillance that recognizes and effectively reduces CSC prognosis, which inhibits tumor growth and tumorigenesis. \*\*\*( P



Analysis of tumor microenvironments' mediators, markers and signaling pathways under the effect of 1-MT-TL/DCs-TL regimens by western blot presented that TGF-beta, PDL-1, and NF-kappabeta2 were significantly inhibited in comparison to PBS ( A ). Meanwhile, IDO, beta-catenin, and CD133 showed significant reduction under the effect of 1-MT, 1-MT+TL, and 1-MT+DCs-TL in comparison to PBS ( B ). These results clearly evidenced that 1-MT extremely prohibited main tumor growth, progression, and immune escaping pathways, which activates immune surveillance restore and recruits cellular and humoral immune responses triggering tumor tissues. Index in PubMed under a CC BY license. PMID: 29959375



IHC analysis of CD133/Prom1 using anti-CD133/Prom1 antibody (A01767-4). CD133/Prom1 was detected in a paraffin-embedded section of mouse kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD133/Prom1 Antibody (A01767-4) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of CD133/Prom1 using anti-CD133/Prom1 antibody (A01767-4). CD133/Prom1 was detected in a paraffin-embedded section of rat kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD133/Prom1 Antibody (A01767-4) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

## 4 Publications Citing This Product

1. PubMed ID: 10.5114/fn.2018.76615, The impact of bone marrow-derived mesenchymal stem cells on neovascularisation in rats with brain injury.
2. PubMed ID: 10.1371/journal.pone.0084358, Antagonism of Bradykinin B2 Receptor Prevents Inflammatory Responses in Human Endothelial Cells by Quenching the NF- $\kappa$ B Pathway Activation
3. PubMed ID: 10.7150/thno.13532, Dual Receptor Recognizing Cell Penetrating Peptide for Selective Targeting, Efficient Intratumoral Diffusion and Synthesized Anti-Glioma Therapy

Visit [bosterbio.com/anti-cd133-prom1-picoband-trade-antibody-a01767-4-boster.html](http://bosterbio.com/anti-cd133-prom1-picoband-trade-antibody-a01767-4-boster.html) to see all 4 publications.

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Anti-CD133/Prom1 Antibody

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