

Mouse anti-Human, Mouse PROM1/CD133 Monoclonal Antibody | anti-PROM1 antibody

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

CATALOG # AAA125918	HOST Mouse	REACTIVITY Human, Mouse	APPLICATIONS Flow Cytometry, Functional Assay, Western Blot
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PRODUCT SYNONYMS

PROM1/CD133; Monoclonal Antibody; Anti-PROM1/CD133 Antibody (monoclonal; 8B6); PROM1; PROML1; MSTP061; Prominin-1; Antigen AC133; Prominin-like protein 1; CD antigen CD133; prominin 1; anti-PROM1 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human, Mouse
Clonality	Monoclonal
Isotype	Mouse IgG2a
Clone Number	8B6
Specificity	Mouse IgG monoclonal antibody for PROM1/CD133 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Applicable Applications for anti-PROM1 antibody	FCM/FACS (Flow Cytometry), WB (Western Blot)
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.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



FCM/FACS (Flow Cytometry)

Figure 2. Flow Cytometry analysis of CACO-2 cells using anti-PROM1/CD133 antibody (AAA125918).Overlay histogram showing CACO-2 cells stained with AAA125918 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-PROM1/CD133 Antibody (AAA125918, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)

Figure 1. Western blot analysis of PROM1/CD133 using anti-PROM1/CD133 antibody (AAA125918).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 lysatesLane 2: human SW620 whole cell lysatesLane 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 # AAA125918) at 0. 5 μg/mL overnight at 4 degree 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 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.

ADDITIONAL INFORMATION

Related Product Information for anti-PROM1 antibody	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.
References	1. Yin AH, Miraglia S, Zanjani ED, Almeida-Porada G, Ogawa M, Leary AG, Olweus J, Kearney J, Buck DW (1997). "AC133, is a novel marker for human hematopoietic stem and progenitor cells". Blood 90 (12): 5002-5012. 2. Corbeil D, Fargeas CA, Huttner WB (2001). "Rat prominin, like its mouse and human orthologues, is a pentaspan membrane glycoprotein". Biochem Biophys Res Commun 285 (4): 939-44. 3. Shmelkov, S. V., Butler, J. M., Hooper, A. T., Hormigo, A., Kushner, J., Milde, T., St. Clair, R., Baljevic, M., White, I., Jin, D. K., Chadburn, A., Murphy, A. J., Valenzuela, D. M., Gale, N. W., Thurston, G., Yancopoulos, G. D., D'Angelica, M., Kemeny, N., Lyden, D., Rafii, S. CD133 expression is not restricted to stem cells, and both CD133+ and CD133- metastatic colon cancer cells initiate tumors. J. Clin. Invest. 118: 2111-2120, 2008.

NCBI AND UNIPROT INFORMATION

NCBI GI #	13124442
NCBI GeneID	8842
UniProt Accession #	O43490; Q6SV49; Q6SV50; Q6SV51; Q6SV52; Q6SV53; Q96EN6
Molecular Weight	97kDa
NCBI Official Full Name	Prominin-1
NCBI Official Synonym Full Names	prominin 1
NCBI Official Symbol	PROM1
NCBI Official Synonym Symbols	RP41; AC133; CD133; MCDR2; STGD4; CORD12; PROML1; MSTP061
NCBI Protein Information	prominin-1; hProminin; antigen AC133; prominin-like protein 1; hematopoietic stem cell antigen
UniProt Protein Name	Prominin-1
UniProt Gene Name	PROM1
UniProt Synonym Gene Names	PROML1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/prom1-cd133-antibody-clone-8b6-flow-cytometry-western-blot-elisa/125918>