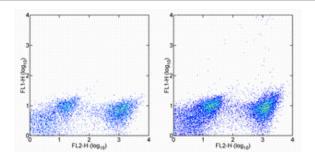


Anti-Mouse CD133 (Prominin-1) Alexa Fluor® 488

Catalog Number: 53-1331

RUO: For Research Use Only. Not for use in diagnostic procedures.



(cat. 12-0112) and 0.25 ug of Rat IgG1 kappa Isotype Control Alexa Fluor® 488 (cat. 53-4301) (left) or 0.25 ug of Anti-Mouse CD133 (Prominin-1) Alexa Fluor® 488 (right). Cells in the large scatter population were used for analysis.

Staining of BALB/c bone marrow cells with Anti-Mouse CD11b PE

Product Information

Contents: Anti-Mouse CD133 (Prominin-1) Alexa Fluor® 488Form
carriREF Catalog Number: 53-1331carriClone: 13A4Tem
sensConcentration: 0.5 mg/mLBateHost/Isotype: Rat IgG1, kappaImage: Bate

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

 Temperature Limitation: Store at 2-8°C. Do not freeze. Light sensitive material.

LOT Batch Code: Refer to Vial

Use By: Refer to Vial

🔨 Caution, contains Azide

Description

The 13A4 monoclonal antibody recognizes mouse Prominin-1 (sometimes also referred to as CD133 and, in the case of the human orthologue, as AC133), a 115-120 kDa pentaspan transmembrane (5-TM) domain glycoprotein. Prominin-1 is expressed on primitive cells such as hematopoietic stem and progenitor cells, neural & endothelial stem cells, retina and retinoblastoma, as well as developing epithelium. To date, the function and ligand of Prominin-1 are unknown. The 13A4 antibody does not cross react with rat, human, chicken, or *Drosophila* antigen but has been reported to work in canine/dog.

Applications Reported

This 13A4 antibody has been reported for use in flow cytometric analysis.

Applications Tested

This 13A4 antibody has been tested by flow cytometric analysis of mouse bone marrow cell suspensions. This can be used at less than or equal to 0.5 μ g per test. A test is defined as the amount (μ g) of antibody that will stain a cell sample in a final volume of 100 μ L. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Pfenninger CV, Roschupkina T, Hertwig F, Kottwitz D, Englund E, Bengzon J, Jacobsen SE, Nuber UA. CD133 is not present on neurogenic astrocytes in the adult subventricular zone, but on embryonic neural stem cells, ependymal cells, and glioblastoma cells. Cancer Res. 2007 Jun 15;67(12):5727-36. (**13A4**, Immunofluorescence, PubMed)

Sugiyama T, Rodriguez RT, McLean GW, Kim SK. Conserved markers of fetal pancreatic epithelium permit prospective isolation of islet progenitor cells by FACS. Proc Natl Acad Sci U S A. 2007 Jan 2;104(1):175-80. (**13A4**, FC, PubMed)

Lamerato-Kozicki AR, Helm KM, Jubala CM, Cutter GC, Modiano JF. Canine hemangiosarcoma originates from hematopoietic precursors with potential for endothelial differentiation. Exp Hematol. 2006 Jul;34(7):870-8. (**13A4**, canine cross-reactivity, PubMed)

Kania G, Corbeil D, Fuchs J, Tarasov KV, Blyszczuk P, Huttner WB, Boheler KR, Wobus AM. Somatic stem cell marker prominin-1/CD133 is expressed in embryonic stem cell-derived progenitors. Stem Cells 2005 Jun-Jul;23(6):791-804. (**13A4**, IHC and WB)

Fargeas CA, Joester A, Missol-Kolka E, Hellwig A, Huttner WB, Corbeil D. Identification of novel Prominin-1/CD133 splice variants with alternative C-termini and their expression in epididymis and testis. J Cell Sci 2004 Aug 15;117(Pt 18):4301-11. (**13A4**, IHC frozen)

Fargeas CA, Corbeil D, Huttner WB. AC133 Antigen, CD133, Prominin-1, Prominin-2, Etc.: Prominin Family Gene Products in Need of a Rational Nomenclature. Stem Cells. 2003;21(4):506-8.

Sawamoto K, Nakao N, Kakishita K, Ogawa Y, Toyama Y, Yamamoto A, Yamaguchi M, Mori K, Goldman SA, Itakura T, Okano H. Generation of Dopaminergic Neurons in the Adult Brain from Mesencephalic Precursor Cells Labeled with a nestin-GFP Transgene. J Neurosci. 2001 Jun 1;21(11):3895-903.

Röper K, Corbeil D, Huttner WB. Retention of prominin in microvilli reveals distinct cholesterol-based lipid micro-domains in the apical plasma membrane.Nat Cell Biol. 2000 Sep;2(9):582-92.

Corbeil D, Röper K, Hellwig A, Tavian M, Miraglia S, Watt SM, Simmons PJ, Peault B, Buck DW, Huttner WB. The Human AC133 Hematopoietic Stem Cell Antigen Is also Expressed in Epithelial Cells and Targeted to Plasma Membrane Protrusions. J Biol Chem. 2000 Feb 25;275(8):5512-20.

Corbeil D, Röper K, Hannah MJ, Hellwig A, Huttner WB. Selective localization of the polytopic membrane protein prominin in microvilli of epithelial cells - a combination of apical sorting and retention in plasma membrane protrusions. J Cell Sci. 1999 Apr;112 (Pt 7):1023-33.

Weigmann A, Corbeil D, Hellwig A, Huttner WB. Prominin, a novel microvilli-specific polytopic membrane protein of the apical surface of epithelial cells, is targeted to plasmalemmal protrusions of non-epithelial cells. Proc Natl Acad Sci U S A. 1997 Nov 11;94(23):12425-30.

Related Products

12-0112 Anti-Mouse CD11b PE (M1/70) 53-4301 Rat IgG1 K Isotype Control Alexa Fluor® 488

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