

CD133 (Prominin-1) Monoclonal Antibody (13A4), Alexa Fluor™ 488, eBioscience™

Product Details	
Size	25 µg
Species Reactivity	Dog, Human, Mouse
Published Species	Mouse, Human
Host/Isotype	Rat / IgG1, kappa
Recommended Isotype Control	Rat IgG1 kappa Isotype Control (eBRG1), Alexa Fluor™ 488, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	13A4
Conjugate	Alexa Fluor™ 488
Excitation/Emission Max	499/520 nm
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4°C, store in dark, DO NOT FREEZE!
RRID	AB_529615

Applications	Tested Dilution	Publications
Western Blot (WB)	-	4 Publications
Immunohistochemistry (IHC)	-	16 Publications
Immunocytochemistry (ICC/IF)	-	7 Publications
Flow Cytometry (Flow)	0.5 µg/test	20 Publications

Product Specific Information

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 and 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.

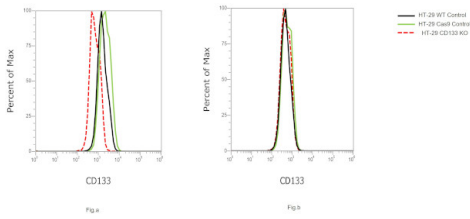
Applications Reported: This 13A4 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This 13A4 antibody has been tested by flow cytometric analysis of mouse bone marrow cells. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. 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.

Excitation: 488 nm; **Emission:** 519 nm; **Laser:** Blue Laser.

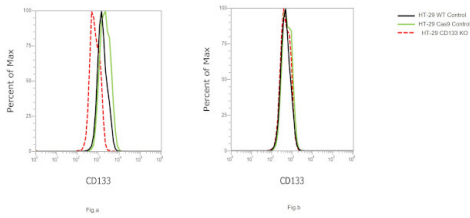
Filtration: 0.2 µm post-manufacturing filtered.

Product Images For CD133 (Prominin-1) Monoclonal Antibody (13A4), Alexa Fluor™ 488, eBioscience™



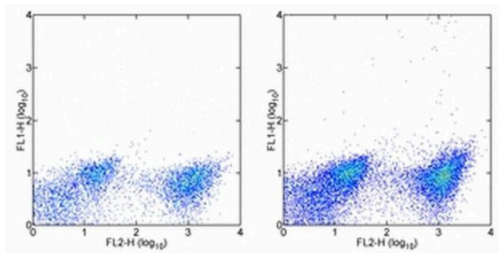
CD133 (Prominin-1) Antibody (53-1331-80)

Antibody specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. A reduced signal was observed for target protein in HT-29 Cas9 cell line transduced with CD133 Lentiviral sgRNA compared to WT control and Cas9 control cells using CD133 (Prominin-1) Monoclonal Antibody (13A4), Alexa Fluor™ 488, eBioscience™ (Product # 53-1331-80). {RE}



CD133 (Prominin-1) Antibody (53-1331-80) in Flow

Knockout of CD133 was achieved by CRISPR-Cas9 genome editing using LentiArray™ Lentiviral sgRNA (Product # A32042, Assay ID CRISPR924819_LV) and LentiArray Cas9 Lentivirus (Product # A32064). Flow cytometry analysis of CD133 was performed using HT-29 WT control, cas9 control and CD133 Knock out cells with 0.5 µg Rat IgG1 kappa Isotype Control (eBRG1), eBioscience™ (Product # 14-4301-85, Fig.b) or 0.5 µg of CD133 (Prominin-1) Monoclonal Antibody (13A4), Alexa Fluor™ 488, eBioscience™ (Product # 53-1331-80, Fig. a). Loss of signal was observed in the CD133 KO cells stained with anti-CD133 antibody but not in the WT, Cas9 cells and isotype antibody stained cells . Fixable Viability Dye eFluor™ 780 (Product # 65-0865-18) was used for gating viable cells for the analysis.



CD133 (Prominin-1) Antibody (53-1331-80) in Flow

Staining of BALB/c bone marrow cells with Anti-Mouse CD11b PE (Product # 12-0112-82) and 0.25 µg of Rat IgG1 kappa Isotype Control Alexa Fluor® 488 (Product # 53-4301-80) (left) or 0.25 µg of Anti-Mouse CD133 (Prominin-1) Alexa Fluor® 488 (right). Cells in the large scatter population were used for analysis.

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47 References

Western Blot (4)

Cancer cell international

Musashi-1 promotes cancer stem cell properties of glioblastoma cells via upregulation of YTHDF1.

"Published figure using CD133 (Prominin-1) monoclonal antibody (Product # 53-1331-80) in Western Blot"

Authors: Yarmishyn AA, Yang YP, Lu KH, Chen YC, Chien Y, Chou SJ, Tsai PH, Ma HI, Chien CS, Chen MT, Wang ML

Year
2020

The Journal of clinical investigation

Mutant ataxin1 disrupts cerebellar development in spinocerebellar ataxia type 1.

"Published figure using CD133 (Prominin-1) monoclonal antibody (Product # 53-1331-80) in Immunohistochemistry"

Authors: Edamakanti CR, Do J, Didonna A, Martina M, Opal P

Year
2018

[View more WB references on thermofisher.cn](#)

Immunohistochemistry (16)

iScience

Prominin 1 and Notch regulate ciliary length and dynamics in multiciliated cells of the airway epithelium.

"Published figure using CD133 (Prominin-1) monoclonal antibody (Product # 53-1331-80) in Immunocytochemistry"

Authors: Serra CFH, Liu H, Qian J, Mori M, Lu J, Cardoso WV

Year
2022

Nature communications

Heterogeneity and dynamics of active Kras-induced dysplastic lineages from mouse corpus stomach.

"Published figure using CD133 (Prominin-1) monoclonal antibody (Product # 53-1331-80) in Immunohistochemistry"

Authors: Min J, Vega PN, Engevik AC, Williams JA, Yang Q, Patterson LM, Simmons AJ, Bliton RJ, Betts JW, Lau KS, Magness ST, Goldenring JR, Choi E

Year
2019

[View more IHC references on thermofisher.cn](#)

More applications with references on thermofisher.cn

ICC/IF (7) Flow (20)

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