

CD133 (Prominin-1) Monoclonal Antibody (TMP4), PerCP-eFluor 710, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Published Species	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), PerCP-eFluor 710, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	TMP4
Conjugate	PerCP-eFluor™ 710
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin, 0.2% BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_1834385

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.25 µg)/test	5 Publications

Product Specific Information

Description: The TMP4 monoclonal antibody reacts with human CD133 (Prominin-1), a 120 kDa member of the pentaspan family of proteins, which also includes Prominin-2. Their expression is found within plasma membrane protrusions such as epithelial microvilli. CD133 can exist in a number of alternatively spliced isoforms, and the protein has several N-linked glycosylation sites: the occurrence of both may be tissue-dependent. Human CD133 was first identified as an epitope expressed on CD34+ hematopoietic progenitors. Although the ligand and function of CD133 remain unknown, it has since proven to be very useful as a marker for both stem cells and cancer stem cells. In addition to its expression on hematopoietic precursors, CD133 has been used to identify tumorigenic colon cancer stem cells, brain cancer stem cells, prostate cancer stem cells, in addition to others.

The binding of the TMP4 antibody does not block the binding of another anti-human CD133 antibody, EMK08 (cat. 12-1339) indicating that they recognize distinct epitopes.

Applications Reported: This TMP4 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This TMP4 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (0.25 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.

PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm); it can be used in place of PerCP-Cyanine5.5. We recommend using a 710/50 bandpass filter, however, the 695/40 bandpass filter is an acceptable alternative. Please make sure that your instrument is capable of detecting this fluorochrome.

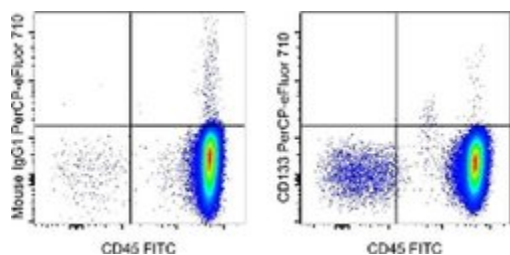
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL of cell sample + 100 µL of IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency /compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 488 nm; Emission: 710 nm; Laser: Blue Laser.

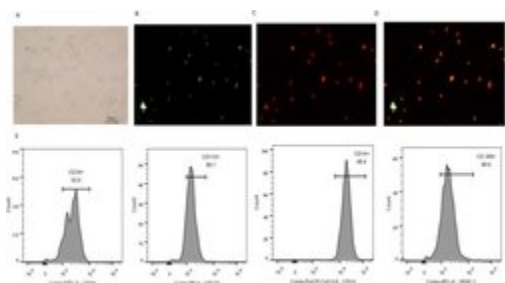
Filtration: 0.2 µm post-manufacturing filtered.

Product Images For CD133 (Prominin-1) Monoclonal Antibody (TMP4), PerCP-eFluor 710, eBioscience™



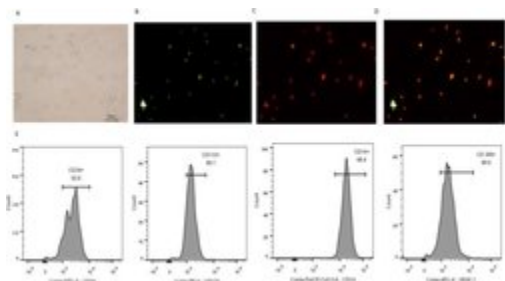
CD133 (Prominin-1) Antibody (46-1338-42) in Flow

Staining of normal human peripheral blood cells with Anti-Human CD45 FITC (Product # 11-9459-42) and Mouse IgG1 K Isotype Control PerCP-eFluor® 710 (Product # 46-4714-82) (left) or Anti-Human CD133 PerCP-eFluor® 710 (right). Total viable cells were used for analysis.



CD133 (Prominin-1) Antibody (46-1338-42)

Fig. 1 Identification of EPCs. a Adherent cells grew in a blood island manner. Fluorescent staining of EPCs. b Adherent cells took up UEA-1-lectin. c Adherent cells took up Dil-Ac-LDL. d Adherent cells took up UEA-1-lectin and Dil-Ac-LDL. E. Surface molecular markers of EPCs. Adherent cells expressed CD34, CD133, CD14 and VEGFR-2. All experiments involving cell culture studies were repeated three times with three replicates per experiment



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5 References

Flow Cytometry (5)

Oncotarget

Inhibition of Fas associated phosphatase 1 (Fap1) facilitates apoptosis of colon cancer stem cells and enhances the effects of oxaliplatin.

"Published figure using CD133 (Prominin-1) monoclonal antibody (Product # 46-1338-42) in Flow Cytometry"

Authors: Huang W, Bei L, Eklund EA

Species

Not Applicable

Dilution

Not Cited

Year

2018

Lipids in health and disease

Chemerin enhances the adhesion and migration of human endothelial progenitor cells and increases lipid accumulation in mice with atherosclerosis.

"Published figure using CD133 (Prominin-1) monoclonal antibody (Product # 46-1338-42) in Flow Cytometry"

Authors: Jia J, Yu F, Xiong Y, Wei W, Ma H, Nisi F, Song X, Yang L, Wang D, Yuan G, Zhou H

Species

Not Applicable

Dilution

Not Cited

Year

2020

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