

# CD133 (Prominin-1) Monoclonal Antibody (TMP4), Super Bright™ 600, 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), Super Bright™ 600, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	TMP4
Conjugate	Super Bright™ 600
Excitation/Emission Max	414/601 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2662115

Applications	Tested Dilution	Publications
Immunocytochemistry (ICC/IF)	-	1 Publication
Flow Cytometry (Flow)	5 µL (0.5 µg)/Test	5 Publications

## Product Specific Information

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 (Product # 12-1339) indicating that they recognize distinct epitopes.

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 10<sup>5</sup> to 10<sup>8</sup> cells/test.

Super Bright 600 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 600 nm. We recommend

using a 610/20 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

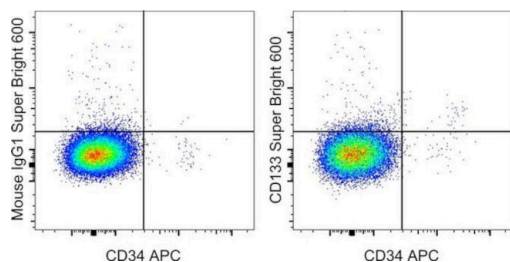
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 L of cell sample + 100 L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 2-8°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorochrome performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 600 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

## Product Images For CD133 (Prominin-1) Monoclonal Antibody (TMP4), Super Bright™ 600, eBioscience™



### CD133 (Prominin-1) Antibody (63-1338-42) in Flow

Staining of normal human peripheral blood cells with Anti-Human CD34 APC (Product # 17-0349-42) and Mouse IgG1 K Isotype Control Super Bright 600 (Product # 63-4714-82) (left) or Anti-Human CD133 Super Bright 600 (right). Cells expressing intermediate levels of CD45 within the lymphocyte gate were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

## 6 References

### Immunocytochemistry (1)

<b>PloS one</b> <b>Modified Leukocyte Filter Removes Tumor Cells from the Salvaged Blood.</b> "Published figure using CD133 (Prominin-1) monoclonal antibody (Product # 63-1338-42) in Immunofluorescence" Authors: Mei K,Du L,Yan M,Zhang Z,Zhang F,Gong L,Sun K,Zhang J,Tang Y,Jiang C,Liu J	<b>Year</b> 2016
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### Flow Cytometry (5)

<b>Cells</b> <b>Profiling and Targeting of Energy and Redox Metabolism in Grade 2 Bladder Cancer Cells with Different Invasiveness Properties.</b> "Published figure using CD133 (Prominin-1) monoclonal antibody (Product # 63-1338-42) in Flow Cytometry" Authors: Pasquale V,Ducci G,Campioni G,Ventrici A,Assalini C,Busti S,Vanoni M,Vago R,Sacco E	<b>Year</b> 2020
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<b>Lipids in health and disease</b> <b>Chemerin enhances the adhesion and migration of human endothelial progenitor cells and increases lipid accumulation in mice with atherosclerosis.</b> "Published figure using CD133 (Prominin-1) monoclonal antibody (Product # 63-1338-42) 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	<b>Year</b> 2020
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[View more Flow references on thermofisher.com](#)

### More applications with references on thermofisher.com

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