

# CD34 Monoclonal Antibody (4H11), Super Bright™ 600, eBioscience™

## Product Details

Size	100 Tests
Species Reactivity	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	4H11
Conjugate	Super Bright™ 600
Excitation/Emission Max	414/601 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2663625

Applications	Tested Dilution	Publications
Immunocytochemistry (ICC/IF)	-	1 Publication
Flow Cytometry (Flow)	5 µL (0.25 µg)/test	26 Publications

## Product Specific Information

**Description:** The 4H11 monoclonal antibody reacts with human CD34, also known as mucosialin. CD34 belongs to a protein family which also includes endoglycan and podocalyxin. Members of this family are single pass transmembrane proteins with a heavily glycosylated extracellular and N-terminal mucin domain. CD34 was first identified as an antigen expressed on hematopoietic progenitors, and has since been extensively used as a marker to isolate cells capable of hematopoietic cell engraftment. In spite of this, the function of CD34 remains unresolved. In addition to expression on hematopoietic progenitors, CD34 is expressed on some populations of mesenchymal stem cells, tumor cell lines, and by vascular endothelia in the adult. Epitopes of CD34 have been assigned to three classes (class I, II or III) based on their differential sensitivity to enzymatic cleavage by neuraminidase, chymopapain, or O-glycoprotease. According to this analysis, the 4H11 antibody belongs to class III, indicating that it reacts with a protein epitope.

**Applications Reported:** This 4H11 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** This 4H11 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.

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.

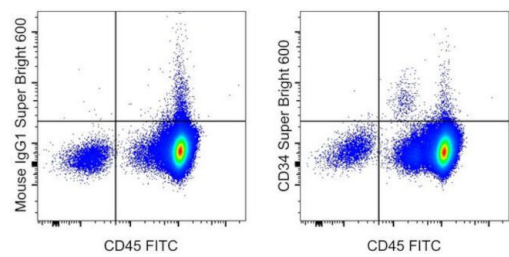
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 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 CD34 Monoclonal Antibody (4H11), Super Bright™ 600, eBioscience™**



**CD34 Antibody (63-0349-42) in Flow**

Staining of normal human peripheral blood cells with Anti-Human CD45 FITC (Product # 11-0459-42) and Mouse IgG1 K Isotype Control Super Bright 600 (Product # 63-4714-82) (left) or Anti-Human CD34 Super Bright 600 (right). Cells in the lymphocyte gate were used for analysis.

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

## Immunocytochemistry (1)

Kidney research and clinical practice

### Modeling of endothelial cell dysfunction using human induced pluripotent stem cells derived from patients with end-stage renal disease.

"Published figure using CD34 monoclonal antibody (Product # 63-0349-42) in Immunocytochemistry"

Authors: Kim KW,Shin YJ,Kim BM,Cui S,Ko EJ,Lim SW,Yang CW,Chung BH

Year  
2021

## Flow Cytometry (26)

Experimental and therapeutic medicine

### Human placental mesenchymal stem cells regulate inflammation via the NFB signaling pathway.

"Published figure using CD34 monoclonal antibody (Product # 63-0349-42) in Flow Cytometry"

Authors: Liu Y,Zhang X,Hu Y,Kang M,Wu Y,Wang Y,Deng C

Year  
2022

Scientific reports

### Angiogenic stem cell delivery platform to augment post-infarction neovasculature and reverse ventricular remodeling.

"Published figure using CD34 monoclonal antibody (Product # 63-0349-42) in Flow Cytometry"

Authors: Shin HS,Thakore A,Tada Y,Pedroza AJ,Ikeda G,Chen IY,Chan D,Jaatinen KJ,Yajima S,Pfrender EM,Kawamura M,Yang PC,Wu JC,Appel EA,Fischbein MP,Woo Y,Shudo Y

Year  
2022

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