

CD34 Monoclonal Antibody (4H11), Super Bright™ 645, eBioscience™

| Product Details | |
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| 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™ 645, eBioscience™ |
| Class | Monoclonal |
| Type | Antibody |
| Clone | 4H11 |
| Conjugate | Super Bright™ 645 |
| Excitation/Emission Max | 414/645 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_2662754 |

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

Super Bright 645 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 645 nm. We recommend using a 660/20 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.

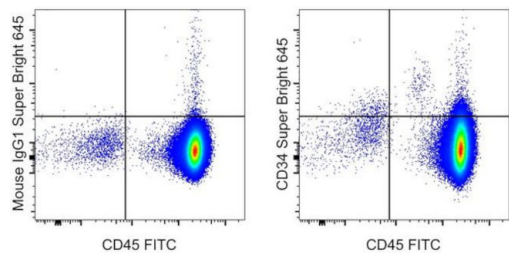
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 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: 405 nm; Emission: 645 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™ 645, eBioscience™



CD34 Antibody (64-0349-42) 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 645 (Product # 64-4714-82) (left) or Anti-Human CD34 Super Bright 645 (right). Cells in the lymphocyte gate were used for analysis.

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Immunocytochemistry (1)

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| <p>Kidney research and clinical practice</p> <p>Modeling of endothelial cell dysfunction using human induced pluripotent stem cells derived from patients with end-stage renal disease.</p> <p>"Published figure using CD34 monoclonal antibody (Product # 64-0349-42) in Immunocytochemistry"</p> <p>Authors: Kim KW,Shin YJ,Kim BM,Cui S,Ko EJ,Lim SW,Yang CW,Chung BH</p> | <p>Year 2021</p> |
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Flow Cytometry (26)

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| <p>Experimental and therapeutic medicine</p> <p>Human placental mesenchymal stem cells regulate inflammation via the NFB signaling pathway.</p> <p>"Published figure using CD34 monoclonal antibody (Product # 64-0349-42) in Flow Cytometry"</p> <p>Authors: Liu Y,Zhang X,Hu Y,Kang M,Wu Y,Wang Y,Deng C</p> | <p>Year 2022</p> |
| <p>Scientific reports</p> <p>Angiogenic stem cell delivery platform to augment post-infarction neovasculature and reverse ventricular remodeling.</p> <p>"Published figure using CD34 monoclonal antibody (Product # 64-0349-42) in Flow Cytometry"</p> <p>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</p> | <p>Year 2022</p> |

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