

# CD34 Monoclonal Antibody (4H11), PE-Cyanine5, 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), PE-Cyanine5, eBioscience™ |
| Class                       | Monoclonal   |
| Type                        | Antibody   |
| Clone                       | 4H11   |
| Conjugate                   | PE-Cyanine5  |
| Excitation/Emission Max     | 568/666 nm   |
| Form                        | Liquid   |
| Concentration               | 5 µL/Test  |
| Purification                | Affinity chromatography  |
| Storage buffer              | PBS, pH 7.2, with 0.2% BSA   |
| Contains                    | 0.09% sodium azide   |
| Storage conditions          | 4° C, store in dark, DO NOT FREEZE!                                      |
| RRID                        | AB_2848279   |

| Applications                 | Tested Dilution      | Publications    |
|------------------------------|----------------------|-----------------|
| Immunocytochemistry (ICC/IF) | -                    | 1 Publication   |
| Flow Cytometry (Flow)        | 5 µL (0.125 µg)/test | 47 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-diluted and tested by flow cytometric analysis of normal human peripheral blood cells. This may be used at 5 µL (0.125 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.

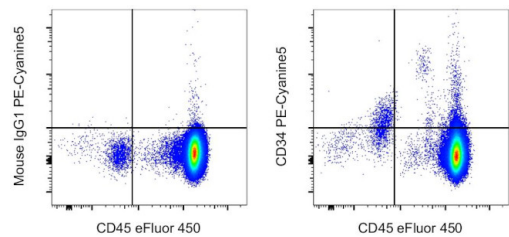
**Light sensitivity:** This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

**Fixation:** Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100 µL of cell sample + 100 µL of IC Fixation

Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333-57) 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: 488-561 nm; Emission: 667 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Product Images For CD34 Monoclonal Antibody (4H11), PE-Cyanine5, eBioscience™



**CD34 Antibody (15-0349-42) in Flow**  
Normal human peripheral blood cells were stained with CD45 Monoclonal Antibody, eFluor 450 (Product # 48-0459-42) and Mouse IgG1 kappa Isotype Control, PE-Cyanine5 (Product # 15-4714-81) (left) or CD34 Monoclonal Antibody, PE-Cyanine5 (right). Cells in the lymphocyte gate were used for analysis.

View more figures on thermofisher.com

48 References

Immunocytochemistry (1)

|   |                         |
|---|-------------------------|
| <p>Kidney research and clinical practice</p> <p><b>Modeling of endothelial cell dysfunction using human induced pluripotent stem cells derived from patients with end-stage renal disease.</b></p> <p>"Published figure using CD34 monoclonal antibody (Product # 15-0349-42) in Immunocytochemistry"</p> <p>Authors: Kim KW,Shin YJ,Kim BM,Cui S,Ko EJ,Lim SW,Yang CW,Chung BH</p> | <p>Year</p> <p>2021</p> |
|---|-------------------------|

Flow Cytometry (47)

|   |                         |
|---|-------------------------|
| <p>Experimental and therapeutic medicine</p> <p><b>Human placental mesenchymal stem cells regulate inflammation via the NFB signaling pathway.</b></p> <p>"Published figure using CD34 monoclonal antibody (Product # 15-0349-42) in Flow Cytometry"</p> <p>Authors: Liu Y,Zhang X,Hu Y,Kang M,Wu Y,Wang Y,Deng C</p> | <p>Year</p> <p>2022</p> |
|---|-------------------------|

|  |                         |
|--|-------------------------|
| <p>Scientific reports</p> <p><b>Angiogenic stem cell delivery platform to augment post-infarction neovasculture and reverse ventricular remodeling.</b></p> <p>"Published figure using CD34 monoclonal antibody (Product # 15-0349-42) 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</p> <p>2022</p> |
|--|-------------------------|

View more Flow references on thermofisher.com

More applications with references on thermofisher.com

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.