

# CD34 Monoclonal Antibody (4H11), eBioscience™

## Product Details

Size	100 µg
Species Reactivity	Human
Published Species	Human, Horse
Host/Isotype	Mouse / IgG1, kappa
Class	Monoclonal
Type	Antibody
Clone	4H11
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_1210472

Applications	Tested Dilution	Publications
Western Blot (WB)	Assay-Dependent	-
Immunocytochemistry (ICC/IF)	-	2 Publications
Flow Cytometry (Flow)	0.5 µg/test	48 Publications
Neutralization (Neu)	Assay-Dependent	-
Functional Assay (FN)	Assay-Dependent	-
Miscellaneous PubMed (Misc)	-	2 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, and immunoblotting (WB). The 4H11 monoclonal antibody can also be used to inhibit proliferation and induce apoptosis in CD34+ cell lines including MOLM-9, JURL-MK1 and HEL.

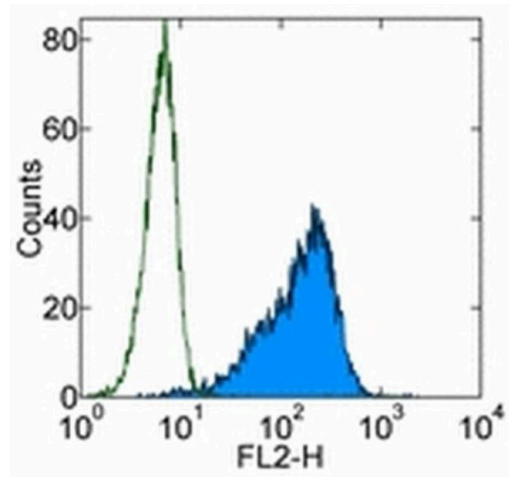
**Applications Tested:** This 4H11 antibody has been tested by flow cytometric analysis of TF-1 cells. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Purity: Greater than 90%, as determined by SDS-PAGE.

Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

**Product Images For CD34 Monoclonal Antibody (4H11), eBioscience™**



**CD34 Antibody (14-0349-82) in Flow**  
Staining of TF-1 cell line with 0.25 µg of Mouse IgG1 K Isotype Control Purified (Product # 14-4714-82) (open histogram) or 0.25 µg of Anti-Human CD34 Purified (filled histogram) followed by F (ab')<sub>2</sub> Anti-Mouse IgG PE (Product # 12-4012). Total viable cells were used for analysis.

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Immunocytochemistry (2)

<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 # 14-0349-82) 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> <p>Species Human</p>
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<p>PloS one</p> <p><b>Microvesicles from Mesenchymal Stromal Cells Are Involved in HPC-Microenvironment Crosstalk in Myelodysplastic Patients.</b></p> <p>"Published figure using CD34 monoclonal antibody (Product # 14-0349-82) in Immunofluorescence"</p> <p>Authors: Muntión S,Ramos TL,Diez-Campelo M,Rosón B,Sánchez-Abarca LI,Misiewicz-Krzeminska I,Preciado S,Sarasquete ME,de Las Rivas J,González M,Sánchez-Guijo F,Del Cañizo MC</p>	<p>Year 2016</p>
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Flow Cytometry (48)

<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 # 14-0349-82) 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>
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<p>Scientific reports</p> <p><b>Angiogenic stem cell delivery platform to augment post-infarction neovasculature and reverse ventricular remodeling.</b></p> <p>"Published figure using CD34 monoclonal antibody (Product # 14-0349-82) 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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Misc (2)

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