

## APC anti-mouse CD34 Antibody

<b>Catalog# / Size</b>	119309 / 25 µg 119310 / 100 µg
<b>Clone</b>	MEC14.7
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Mucosialin
<b>Isotype</b>	Rat IgG2a, κ
<b>Description</b>	CD34 is a highly glycosylated hematopoietic progenitor antigen. Two isoforms of CD34 have been reported to be generated by alternative splicing. This antigen is expressed on hematopoietic progenitors as well as on endothelial cells, brain, and testis. CD34 is thought to function as an adhesion molecule for early hematopoietic progenitors mediating the attachment of stem cells to extracellular matrix or stromal cells. CD34 is phosphorylated on serine residues by PKC.

### Product Details

<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	Cells transfected with mouse CD34
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with APC under optimal conditions.
<b>Concentration</b>	0.2 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤1.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Excitation Laser</b>	Red Laser (633 nm)
<b>Application Notes</b>	The MEC14.7 antibody does not stain bone marrow cells like some other mouse CD34 antibodies, probably because the antibody recognizes a different epitope from other mAbs. Additional reported applications (for the relevant formats) include: immunoprecipitation, Western blotting <sup>6</sup> , and immunohistochemistry of acetone-fixed frozen sections and paraffin-embedded sections <sup>2,4,5,6</sup> .
<b>Application References</b>	<ol style="list-style-type: none"> <li>1. Garlanda C, <i>et al.</i> 1997. <i>Eur. J. Cell Biol.</i> 73:368. (FC)</li> <li>2. Knowles HJ, <i>et al.</i> 2004. <i>Circ. Res.</i> 95:162. (IHC)</li> <li>3. Trempus CS, <i>et al.</i> 2003. <i>J. Invest. Dermatol.</i> 120:501.</li> <li>4. Winding B, <i>et al.</i> 2002. <i>Clin. Cancer Res.</i> 8:1932. (IHC)</li> <li>5. Voswinkel R, <i>et al.</i> 2003. <i>Circ. Res.</i> 93:372. (IHC)</li> <li>6. Kairaitis LK, <i>et al.</i> 2005. <i>Am. J. Physiol. Renal. Physiol.</i> 288:F198. (IHC, WB)</li> <li>7. Ao A, <i>et al.</i> 2008. <i>P. Natl. Acad. Sci. USA</i> 105:7821. <a href="#">PubMed</a></li> <li>8. Zaynagetdinov R., <i>et al.</i> 2011. <i>J Immunol.</i> 187:5703. <a href="#">PubMed</a>.</li> </ol>
<b>(PubMed link indicates BioLegend citation)</b>	
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>1. Wei H, <i>et al.</i> 2021. <i>Malar J.</i> 20:89. <a href="#">PubMed</a></li> <li>2. Jing Li <i>et al.</i> 2018. <i>Immunity.</i> 48(4):773-786. <a href="#">PubMed</a></li> <li>3. Mittal S, <i>et al.</i> 2016. <i>Stem Cell Reports.</i> 7:583-590. <a href="#">PubMed</a></li> </ol>

4. Davidson S, *et al.* 2020. Cell Reports. 31(7):107628. [PubMed](#)
5. Garcia-Bonilla M, *et al.* 2020. Stem Cell Res Ther. 11:121. [PubMed](#)
6. Wu L, *et al.* 2022. Theranostics. 12:842. [PubMed](#)
7. Rafatian G, *et al.* 2020. Aging Cell. 19:e13174. [PubMed](#)
8. Sun J *et al.* 2018. Cell stem cell. 23(3):355-369 . [PubMed](#)
9. Zheng X, *et al.* 2015. Cell Rep. 13:1505-1518. [PubMed](#)
10. Celik H, *et al.* 2018. Cancer Cell. 34:741. [PubMed](#)
11. Siddique SM, *et al.* 2019. Sci Rep. 9:13977. [PubMed](#)
12. Vogiatzi A, *et al.* 2021. Mol Cell Biol. 41:e0014921. [PubMed](#)

**RRID** AB\_1236482 (BioLegend Cat. No. 119309)  
 AB\_1236469 (BioLegend Cat. No. 119310)

## Antigen Details

<b>Structure</b>	Type I membrane protein, 75-120 kD, highly glycosylated; two isoforms reported
<b>Distribution</b>	Hematopoietic progenitors, brain, testis, endothelial cells; low expression in thymus, spleen, and bone marrow
<b>Function</b>	Possible adhesion molecule thought to function in early hematopoiesis by mediating attachment of stem cells to bone marrow extracellular matrix or stromal cells. Presents carbohydrate ligands to selectins.
<b>Ligand/Receptor</b>	L-selectin, other selectins
<b>Cell Type</b>	Endothelial cells, Hematopoietic stem and progenitors
<b>Biology Area</b>	Cell Biology, Immunology, Neuroinflammation, Neuroscience
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Garlanda C, <i>et al.</i> 1997. <i>Eur. J. Cell Biol.</i> 73:368.</li> <li>2. Brown J, <i>et al.</i> 1991. <i>Int. Immunol.</i> 3:175.</li> <li>3. Suda J, <i>et al.</i> 1992. <i>Blood</i> 79:2288.</li> <li>4. Baumhueter S, <i>et al.</i> 1994. <i>Blood</i> 84:2554.</li> </ol>
<b>Gene ID</b>	<a href="#">12490</a>

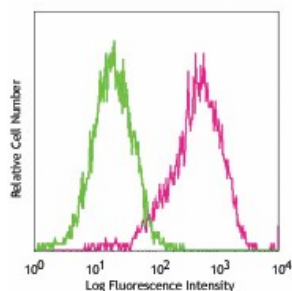
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

Purified anti-mouse CD34, Biotin anti-mouse CD34, PE anti-mouse CD34, Alexa Fluor® 647 anti-mouse CD34, PE/Cyanine5 anti-mouse CD34, APC anti-mouse CD34, Brilliant Violet 421™ anti-mouse CD34, PE/Cyanine7 anti-mouse CD34, PerCP/Cyanine5.5 anti-mouse CD34, PE/Dazzle™ 594 anti-mouse CD34

## Product Data



NIH3T3 cells stained with MEC14.7APC

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