

## APC anti-human CD34 Antibody

<b>Catalog# / Size</b>	343509 / 25 tests 343510 / 100 tests
<b>Clone</b>	581
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	V MA27
<b>Other Names</b>	Gp105-120, My10
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	CD34, also known as gp105-120, is a type I monomeric sialomucin-like glycoprophosphoprotein with an approximate molecular weight of 105-120 kD. Selectively expressed on the majority of hematopoietic stem/progenitor cells, bone marrow stromal cells, capillary endothelial cells, embryonic fibroblasts, and some nervous tissue, CD34 is a commonly used marker to identify human hematopoietic stem/progenitor cells. According to the differential sensitivity to enzymatic cleavage, four groups of epitopes of CD34 have been described. CD34 mediates cell adhesion and lymphocytes homing through binding to L-selectin and E-selectin ligands.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	Cynomolgus
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with APC under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<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 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
<b>Excitation Laser</b>	Red Laser (633 nm)
<b>Application Notes</b>	The 581 antibody recognizes the class III group epitope which is resistant to sialidase/glycolyprotease and chymopapain treatment. Additional reported applications (for the relevant formats) include: immunohistochemical staining of paraffin-embedded tissue sections <sup>5</sup> and immunofluorescence <sup>6</sup> .
<b>Application References</b> (PubMed link indicates BioLegend citation)	<ol style="list-style-type: none"> <li>Schlossman SF, <i>et al.</i> 1995. <i>Leukocyte Typing V: White Cell Differentiation Antigen</i>. New York: Oxford University Press.</li> <li>Felschow DM, <i>et al.</i> 2001. <i>Blood</i> 97:3768.</li> <li>Rudin CE, <i>et al.</i> 1997. <i>Br. J. Haematol.</i> 97:488.</li> <li>Yoshino N, <i>et al.</i> 2000. <i>Exp. Anim. (Tokyo)</i> 49:97. (FC)</li> <li>Skowasch D, <i>et al.</i> 2003. <i>Cardiovasc Res.</i> 60:684. (IHC)</li> <li>Umland O, <i>et al.</i> 2003. <i>J. Histochem. Cytochem.</i> 51:977. (IF)</li> </ol>
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>Schelker RC, <i>et al.</i> 2018. <i>Hematology</i>. 1.192361111. <a href="#">PubMed</a></li> </ol>

2. Giambra V *et al.* 2018. *Cell stem cell.* 23(5):714-726 . [PubMed](#)
3. Gomez-Ospina N, *et al.* 2019. *Nat Commun.* 3.225694444. [PubMed](#)
4. Okumura T, *et al.* 2019. *Stem Cell Res Ther.* 10:185. [PubMed](#)
5. Peters S, *et al.* 2018. *Front Neurol.* 0.797916667. [PubMed](#)
6. Chabi S, *et al.* 2020. *Cell Reports.* 29(8):2307-2320.e6.. [PubMed](#)
7. Lavaert M, *et al.* 2020. *Immunity.* 52(6):1088-1104. [PubMed](#)
8. Kohn L, *et al.* 2012. *Nat Immunol.* 13:963. [PubMed](#)
9. Grassinger J, *et al.* 2014. *Cytokine.* 67:21. [PubMed](#)
10. Minami H, *et al.* 2015. *PLoS One.* 10:128890. [PubMed](#)
11. Scharenberg SG, *et al.* 2020. *Nat Commun.* 2.76875. [PubMed](#)

**RRID** AB\_1877154 (BioLegend Cat. No. 343509)  
 AB\_1877153 (BioLegend Cat. No. 343510)

## Antigen Details

<b>Structure</b>	105-120 kD single chain mucin-like glycoprotein
<b>Distribution</b>	Hematopoietic stem/progenitor cells, bone marrow stromal cells, endothelial cells, embryonic fibroblasts
<b>Function</b>	Cell adhesion
<b>Ligand/Receptor</b>	L-selectin, E-selectin
<b>Cell Type</b>	Endothelial cells, Fibroblasts, Hematopoietic stem and progenitors
<b>Biology Area</b>	Cell Biology, Immunology, Neuroinflammation, Neuroscience, Stem Cells
<b>Molecular Family</b>	CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Krause DS, <i>et al.</i> 1996. <i>Blood</i> 87:1.</li> <li>2. Puri KD, <i>et al.</i> 1995. <i>J. Cell Biol.</i> 131:261.</li> <li>3. Zola H, <i>et al.</i> 2007. <i>Leukocyte and Stromal Cell Molecules: The CD Markers.</i> John Wiley &amp; Sons Inc, Hoboken New Jersey.</li> </ol>
<b>Gene ID</b>	<a href="#">947</a>

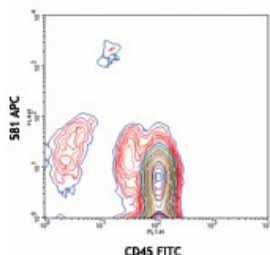
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

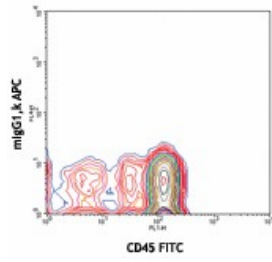
## Other Formats

Purified anti-human CD34, FITC anti-human CD34, PE anti-human CD34, Alexa Fluor® 647 anti-human CD34, APC anti-human CD34, Pacific Blue™ anti-human CD34, APC/Cyanine7 anti-human CD34, PE/Cyanine7 anti-human CD34, Alexa Fluor® 488 anti-human CD34, PerCP anti-human CD34, PerCP/Cyanine5.5 anti-human CD34, Biotin anti-human CD34, Alexa Fluor® 700 anti-human CD34, Brilliant Violet 510™ anti-human CD34, Purified anti-human CD34 (Maxpar® Ready), PE/Dazzle™ 594 anti-human CD34, APC/Fire™ 750 anti-human CD34, TotalSeq™-A0054 anti-human CD34, TotalSeq™-B0054 anti-human CD34, TotalSeq™-C0054 anti-human CD34, TotalSeq™-D0054 anti-human CD34

## Product Data



Human peripheral blood leukocytes stained with 581 APC/CD45 FITC/CD14 PE and 7-AAD then analyzed via gating on total live and CD14 negative lymphocyte population



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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 [www.biolegend.com](http://www.biolegend.com)  
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587