

## Purified anti-human CD34 Antibody

<b>Catalog# / Size</b>	343501 / 25 µg 343502 / 100 µg
<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.
<b>Preparation</b>	The antibody was purified by affinity chromatography.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C.
<b>Application</b>	<a href="#">FC - Quality tested</a> <a href="#">CyTOF® - Verified</a> <a href="#">ICC, IHC-P - Reported in the literature, not verified in house</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 ≤ 2.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
<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>Liu C, <i>et al.</i> 2022. <i>Regen Ther.</i> 21:192. <a href="#">PubMed</a></li> <li>Wei SC <i>et al.</i> 2017. <i>Cell.</i> 170(6):1120-1133. <a href="#">PubMed</a></li> <li>Zhou W <i>et al.</i> 2017. <i>Cell stem cell.</i> 21(5):591-603. <a href="#">PubMed</a></li> </ol>

4. Kato M, *et al.* 2021. PLoS One. 16:e0252116. [PubMed](#)
5. Henrick BM, *et al.* 2021. Cell. . [PubMed](#)
6. Roussel M, *et al.* 2021. Cell Reports Medicine. 2(6):100291. [PubMed](#)
7. Evrard M *et al.* 2018. Immunity. 48(2):364-379. [PubMed](#)
8. Richmond BW, *et al.* 2020. Mucosal Immunol. . [PubMed](#)
9. Ran LJ, *et al.* 2018. Mol Med Rep. 18:723. [PubMed](#)
10. Sander J *et al.* 2017. Immunity. 47(6):1051-1066. [PubMed](#)
11. Crawford LB, *et al.* 2021. J Virol. 95:. [PubMed](#)

**RRID** AB\_1731969 (BioLegend Cat. No. 343501)  
 AB\_1731898 (BioLegend Cat. No. 343502)

## 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>

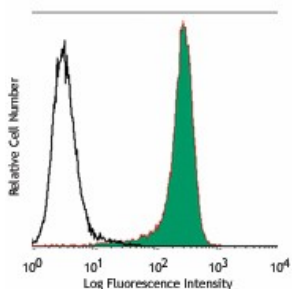
## Related Protocols

[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, Spark Red™ 718 anti-human CD34

## Product Data



Human myeloid cell line KG1a stained with purified 581, followed by anti-mouse IgG FITC

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