

PE anti-human CD34 Antibody

Catalog# / Size	343505 / 25 tests 343506 / 100 tests
Clone	581
Regulatory Status	RUO
Workshop	V MA27
Other Names	Gp105-120, My10
Isotype	Mouse IgG1, κ
Description	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

Verified Reactivity	Human
Reported Reactivity	Cynomolgus
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . 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.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	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 ⁵ and immunofluorescence ⁶ .
Application References	1. Schlossman SF, <i>et al.</i> 1995. <i>Leukocyte Typing V: White Cell Differentiation Antigen</i> . New York: Oxford University Press. 2. Felschow DM, <i>et al.</i> 2001. <i>Blood</i> 97:3768. 3. Rudin CE, <i>et al.</i> 1997. <i>Br. J. Haematol.</i> 97:488. 4. Yoshino N, <i>et al.</i> 2000. <i>Exp. Anim. (Tokyo)</i> 49:97. (FC) 5. Skowasch D, <i>et al.</i> 2003. <i>Cardiovasc Res.</i> 60:684. (IHC) 6. Umland O, <i>et al.</i> 2003. <i>J. Histochem. Cytochem.</i> 51:977. (IF)
(PubMed link indicates BioLegend citation)	

Product Citations

1. Wu L, *et al.* 2018. *Oncol Lett.* 15:9507. [PubMed](#)
2. Liu W, *et al.* 2018. *Theranostics.* 8:5575. [PubMed](#)
3. Vyas P, *et al.* 2019. *Sci Rep.* 9:5549. [PubMed](#)
4. Pan C, *et al.* 2019. *Int J Mol Med.* 44:1629. [PubMed](#)
5. Montel-Hagen A *et al.* 2019. *Cell stem cell.* 24(3):376-389. [PubMed](#)
6. Shastri A, *et al.* 2018. *J Clin Invest.* 128:5479. [PubMed](#)
7. Turan RD, *et al.* 2020. *Sci Rep.* 10:7994. [PubMed](#)
8. Chabi S, *et al.* 2020. *Cell Reports.* 29(8):2307-2320.e6.. [PubMed](#)
9. Werner-Klein M, *et al.* 2014. *PLoS One.* 9:97860. [PubMed](#)
10. Han S, *et al.* 2017. *Leukemia.* 10.1038/leu.2017.72. [PubMed](#)
11. Bunis DG, *et al.* 2021. *Cell Reports.* 34(1):108573. [PubMed](#)

RRID AB_1731937 (BioLegend Cat. No. 343505)
AB_1731862 (BioLegend Cat. No. 343506)

Antigen Details

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

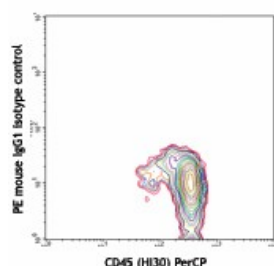
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

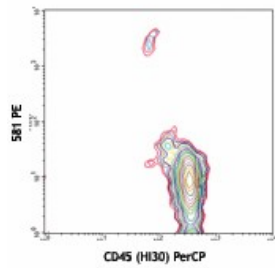
Other Formats

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 mononuclear cells stained with 581 PE (lower panel) or PE mouse IgG1 isotype control (upper panel) and CD45 (HI30) PerCP (gated on CD14- cell population)



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