

Pacific Blue™ anti-human CD34 Antibody

Catalog# / Size	343511 / 25 µg 343512 / 100 µg
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.
Preparation	The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions.
Concentration	0.5 mg/ml
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 ≤ 1.0 µg per 10 ⁶ cells in 100 µl volume or 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. * Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Excitation Laser	Violet Laser (405 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, et al. 1995. <i>Leukocyte Typing V: White Cell Differentiation Antigen</i> . New York: Oxford University Press.
(PubMed link indicates	

- BioLegend citation)**
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Product Citations

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4. Queckborner S, *et al.* 2020. *Stem Cell Res Ther.* 11:15. [PubMed](#)
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15. Pribyl M, *et al.* 2020. *Mol Oncol.* 2.252083333. [PubMed](#)
16. Rai S, *et al.* 2022. *Nat Commun.* 13:5346. [PubMed](#)
17. Ueda K, *et al.* 2021. *Cancer Cell.* 39(4):529-547.e7. [PubMed](#)
18. Jarajapu Y, *et al.* 2013. *Diabetes.* 62:1258. [PubMed](#)
19. Yang C, *et al.* 2019. *Nat Commun.* 10:3931. [PubMed](#)

RRID AB_1877198 (BioLegend Cat. No. 343511)
AB_1877197 (BioLegend Cat. No. 343512)

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

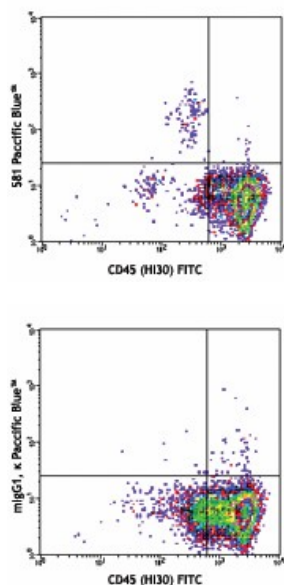
Related Protocols

[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, Spark Red™ 718 anti-human CD34

Product Data



Human peripheral blood leukocytes stained with CD34 Pacific Blue™ (clone 581) or mouse IgG1, κ Pacific Blue™ isotype control and costained with CD45 FITC, CD14 PE and 7-AAD, then analyzed via gating on total live and CD14 negative lymphocyte population.

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