

Alexa Fluor® 647 anti-human CD34 Antibody

Catalog# / Size	343507 / 25 tests 343508 / 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 Alexa Fluor® 647 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.

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm.

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Excitation Laser	Red Laser (633 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

(PubMed link indicates BioLegend citation)

- Schlossman SF, *et al.* 1995. *Leukocyte Typing V: White Cell Differentiation Antigen*. New York: Oxford University Press.
- Felschow DM, *et al.* 2001. *Blood* 97:3768.
- Rudin CE, *et al.* 1997. *Br. J. Haematol.* 97:488.

4. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
5. Skowasch D, *et al.* 2003. *Cardiovasc Res.* 60:684. (IHC)
6. Umland O, *et al.* 2003. *J. Histochem. Cytochem.* 51:977. (IF)

Product Citations

1. Rothe K, *et al.* 2020. *Cell Stem Cell.* 27(1):110-124.e9. [PubMed](#)
2. Knapp D, *et al.* 2017. *Blood.* 129(3):307-318. [PubMed](#)
3. Oeztuerk-Winder F, *et al.* 2012. *EMBO J.* 31:3431. [PubMed](#)
4. Zhang HF, *et al.* 2021. *Cancer Discov.* 11:2884. [PubMed](#)
5. Mendes R, *et al.* 2016. *Infect Immun.* 84: 2141 - 2148. [PubMed](#)
6. Salik B, *et al.* 2020. *Cancer Cell.* 38(2):263-278.e6. [PubMed](#)
7. Bade RM, *et al.* 2021. *Molecular Oncology.* . [PubMed](#)

RRID

AB_1877134 (BioLegend Cat. No. 343507)
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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

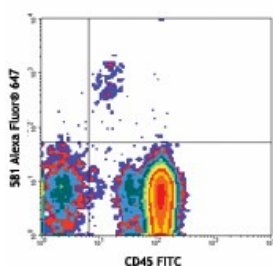
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

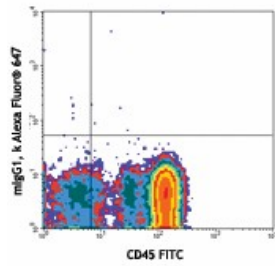
Other Formats

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 581 Alexa Fluor® 647 and CD45 (HI30) FITC (top) or mIgG1, κ isotype control Alexa Fluor® 647 and CD45 (HI30) FITC (bottom). Cytograms were gated to display CD14 negative lymphocyte population.



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