

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.

Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.

[View full statement regarding label licenses](#)

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)
 AB_1877133 (BioLegend Cat. No. 343508)

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

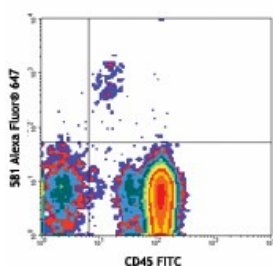
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

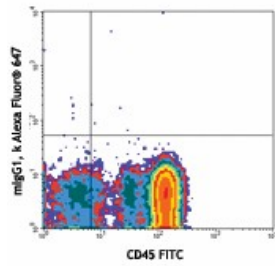
Other Formats

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.



For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

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