

Spark PLUS B550™ anti-human CD34 Antibody

Catalog# / Size	343553 / 25 tests 343554 / 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 Spark PLUS B550™ under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
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 μ L per million cells in 100 μ L staining volume or 5 μ L per 100 μ L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. * Spark PLUS B550™ has a maximum excitation of 516 nm and a maximum emission of 540 nm.
Excitation Laser	Blue Laser (488 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)

1. Schlossman SF, *et al.* 1995. *Leukocyte Typing V: White Cell Differentiation Antigen*. New York: Oxford University Press.
2. Felschow DM, *et al.* 2001. *Blood* 97:3768.
3. 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)

RRID

AB_3683359 (BioLegend Cat. No. 343553)
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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

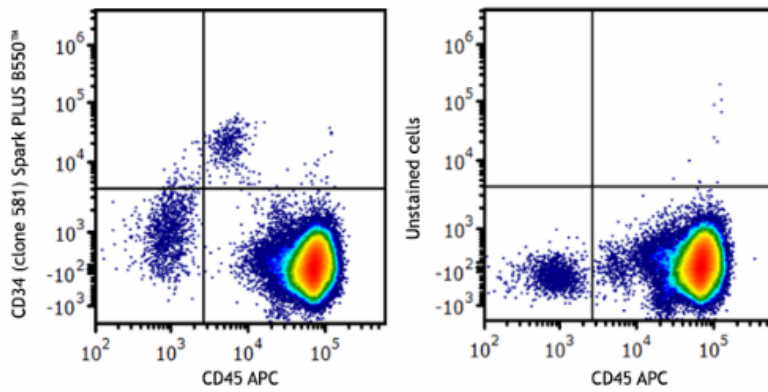
Related Protocols

- [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, Cell-Vive™ GMP Ultra-LEAF™ Purified anti-human CD34 SF, Cell-Vive™ GMP Ultra-LEAF™ Biotin anti-human CD34 SF Antibody, Spark PLUS UV395™ anti-human CD34, Spark PLUS B550™ anti-human CD34 Antibody

Product Data



Human peripheral blood leukocytes were stained with anti-human CD45 (clone HI30) APC, anti-human CD14 (clone HCD14) PE and anti-human CD34 (clone 581) Spark PLUS B550™ (left) or with anti-human CD45 (clone HI30) APC and anti-human CD14 (clone HCD14) PE only (right). Data shown is gated on the CD14-negative cell population

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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