

## Spark PLUS B574™ anti-human CD34 Antibody

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| <b>Catalog# / Size</b>   | 343555 / 25 tests<br>343556 / 100 tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Clone</b>             | 581                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Regulatory Status</b> | RUO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Workshop</b>          | V MA27                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Other Names</b>       | Gp105-120, My10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Isotype</b>           | Mouse IgG1, κ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Description</b>       | CD34, also known as gp105-120, is a type I monomeric sialomucin-like glycoposphoprotein 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

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| <b>Verified Reactivity</b>    | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Reported Reactivity</b>    | Cynomolgus                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Antibody Type</b>          | Monoclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Host Species</b>           | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Formulation</b>            | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Preparation</b>            | The antibody was purified by affinity chromatography and conjugated with Spark PLUS B574™ under optimal conditions.                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Concentration</b>          | Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our <a href="#">Certificate of Analysis</a> online tool).                                                                                                                                                                                                                                                                                                                          |
| <b>Storage &amp; Handling</b> | The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>                                                                                                                                                                                                                                                                                                                                          |
| <b>Application</b>            | <a href="#">FC - Quality tested</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Recommended Usage</b>      | Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . 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. It is recommended that the reagent be titrated for optimal performance for each application.<br><br>* Spark PLUS B574™ has a maximum excitation of 506 nm and a maximum emission of 574 nm. |
| <b>Excitation Laser</b>       | Blue Laser (488 nm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Application Notes</b>      | 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 <sup>5</sup> and immunofluorescence <sup>6</sup> .                                                                                                                                                         |

## 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\_3717240 (BioLegend Cat. No. 343555)  
AB\_3717240 (BioLegend Cat. No. 343556)

## Antigen Details

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| 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"><li>1. Krause DS, <i>et al.</i> 1996. <i>Blood</i> 87:1.</li><li>2. Puri KD, <i>et al.</i> 1995. <i>J. Cell Biol.</i> 131:261.</li><li>3. Zola H, <i>et al.</i> 2007. <i>Leukocyte and Stromal Cell Molecules: The CD Markers</i>. John Wiley &amp; Sons Inc, Hoboken New Jersey.</li></ol> |
| Gene ID            | <a href="#">947</a>                                                                                                                                                                                                                                                                                                           |

## Related Protocols

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- [Cell Surface Flow Cytometry Staining Protocol](#)

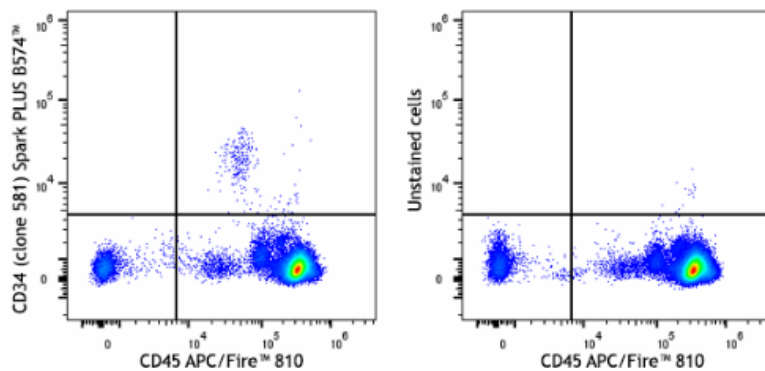
## Other Formats

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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, PE/Dazzle™ 594 anti-human CD34, APC/Cyanine7 anti-human CD34, 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, PerCP anti-human CD34, PerCP/Cyanine5.5 anti-human CD34, PE/Cyanine7 anti-human CD34, Alexa Fluor® 488 anti-human CD34, Alexa Fluor® 700 anti-human CD34, Brilliant Violet 510™ anti-human CD34, Biotin anti-human CD34, TotalSeq™-A0054 anti-human CD34, TotalSeq™-B0054 anti-human CD34, TotalSeq™-C0054 anti-human CD34, APC/Fire™ 750 anti-human CD34, Purified anti-human CD34 (Maxpar® Ready), Spark PLUS B574™ anti-human CD34 Antibody, Spark PLUS UV395™ anti-human CD34, Spark PLUS B550™ anti-human CD34 Antibody

## Product Data

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Human peripheral blood mononuclear cells were stained with anti-human CD14 (clone HCD14) APC, anti-human CD45 (clone HI30) APC/Fire™ 810, and anti-human CD34 (clone 581) Spark PLUS B574™ (left) or stained with anti-human CD14 (clone HCD14) APC and anti-human CD45 (clone HI30) APC/Fire™ 810 only (right). Data shown are gated on the CD14 negative lymphocyte population.

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