# PE anti-human CD34 Antibody

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| **Catalog# / Size** | 343505 / 25 tests<br>343506 / 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 glycophosphoprotein 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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| **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 PE 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. |
| **Excitation Laser** | Blue Laser (488 nm)<br>Green Laser (532 nm)/Yellow-Green Laser (561 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)**


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6. Umland O, *et al.* 2003. *J. Histochem. Cytochem.* 51:977. (IF)


**Product Citations**

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2. Chabi S, *et al.* 2020. Cell Reports. 29(8):2307-2320.e6.. PubMed
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**RRID**

AB_1731937 (BioLegend Cat. No. 343505)
AB_1731862 (BioLegend Cat. No. 343506)

## 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**


1. Krause DS, *et al.* 1996. *Blood* 87:1.
2. Puri KD, *et al.* 1995. *J. Cell Biol.* 131:261.
3. Zola H, *et al.* 2007. *Leukocyte and Stromal Cell Molecules:The CD Markers*. John Wiley & Sons Inc, Hoboken New Jersey.


**Gene ID**

947

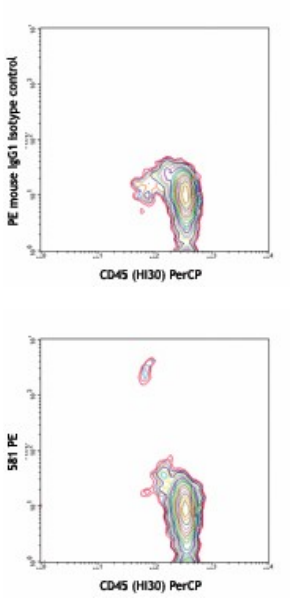
## Related Protocols

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 mononuclear cells stained with 581 PE (lower panel) or PE mouse IgG1 isotype control (upper panel) and CD45 (HI30) PerCP (gated on CD14- cell population)



BioLegend Inc., 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