# Anti-Human CD34 Antibody, Clone 563, PE

## Antibodies

Mouse monoclonal IgG1 antibody against human, rhesus, cynomolgus CD34, PE-conjugated

Catalog #60119PE 50 Tests 20 µL/test

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## Product Description

CD34 is an ~105 - 120 kDa type 1 transmembrane glycoprotein expressed on the surface of most human hematopoietic stem and progenitor cells (HSPCs), as well as on endothelial cells and some tumor cell lines. The frequency of CD34+ cells is low in bone marrow (1 - 4%), cord blood (~1%), and peripheral blood (< 0.1%). CD34 is used to identify and isolate HSPCs, including those capable of reconstituting hematopoiesis after transplantation. Distinct epitope groups have been assigned to CD34 based on differences in the structure of carbohydrate groups, which affects their sensitivity to enzymatic cleavage. The 563 antibody recognizes a class III epitope (resistant to neuraminidase and O-glycoprotease). Clone 563 also cross-reacts with CD34+ cells of rhesus, cynomolgus, and pigtailed macaques, but not baboons.

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| Target Antigen Name: | CD34 |
| Alternative Names: | Gp105-120, My10 |
| Gene ID: | 947 |
| Species Reactivity: | Human, Rhesus, Cynomolgus, Chimpanzee, Pigtailed macaque |
| Host Species: | Mouse |
| Clonality: | Monoclonal |
| Clone: | 563 |
| Isotype: | IgG1, kappa |
| Immunogen: | Human CD34+ leukemic cells |
| Conjugate: | PE (Phycoerythrin) |

## Applications

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| Verified: | FC |
| Reported: | FC, IF |

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

## Properties

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| Formulation: | Aqueous buffer containing ≤ 0.09% sodium azide and bovine serum albumin |
| Purification: | The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody. |
| Stability and Storage: | Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com. |
| Directions for Use: | For flow cytometry, the suggested use of this antibody is 20 µL per 1 x 10^6 cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application. |

## Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

## References

1. Steen R & Egeland T. (1998) CD34 molecule epitope distribution on cells of haematopoietic origin. Leuk Lymphoma 30(1-2): 23–30.
2. Egeland T et al. (1993) Positive selection of bone marrow-derived CD34 positive cells for possible stem cell transplantation. Transplant Proc 25(1 Pt 2): 1261–3.
3. Strauss LC et al. (1986) Antigenic analysis of hematopoiesis. V. Characterization of My-10 antigen expression by normal lymphohematopoietic progenitor cells. Exp Hematol 14(9): 878–86.
4. Civin CI et al. (1984) Antigenic analysis of hematopoiesis. III. A hematopoietic progenitor cell surface antigen defined by a monoclonal antibody raised against KG-1a cells. J Immunol 133(1): 157–65.