

Anti-Human CD34 Antibody, Clone 581



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Antibodies

Mouse monoclonal IgG1 antibody
against human CD34, unconjugated

Catalog #60013

100 µg 0.5 mg/mL

Product Description

The 581 antibody reacts with human CD34, 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 mesenchymal stem cells, embryonic fibroblasts, endothelial cells, neurons, and some tumor cell lines. CD34 is expressed only transiently during hematopoiesis, so the frequency of CD34+ cells is low in bone marrow or cord blood (~1 - 5%) and very low (~0.1 - 0.5%) in peripheral blood. CD34 is a marker used to identify and isolate HSPCs capable of cell engraftment. CD34 is thought to mediate attachment of stem cells to the bone marrow extracellular matrix or directly to stromal cells during early hematopoiesis, and to be involved in lymphocyte recruitment through binding to the ligands L- and E-selectin. Distinct epitope groups have been assigned to CD34 based on their sensitivity to enzymatic cleavage, with the 581 antibody recognizing a class III epitope (resistant to neuraminidase and O-glycoprotease).

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|----------------------|----------------------------|
| Target Antigen Name: | CD34 |
| Alternative Names: | Gp105-120, My10 |
| Gene ID: | 947 |
| Species Reactivity: | Human |
| Host Species: | Mouse |
| Clonality: | Monoclonal |
| Clone: | 581 |
| Isotype: | IgG1, kappa |
| Immunogen: | Human CD34+ leukemic cells |
| Conjugate: | Unconjugated |

Applications

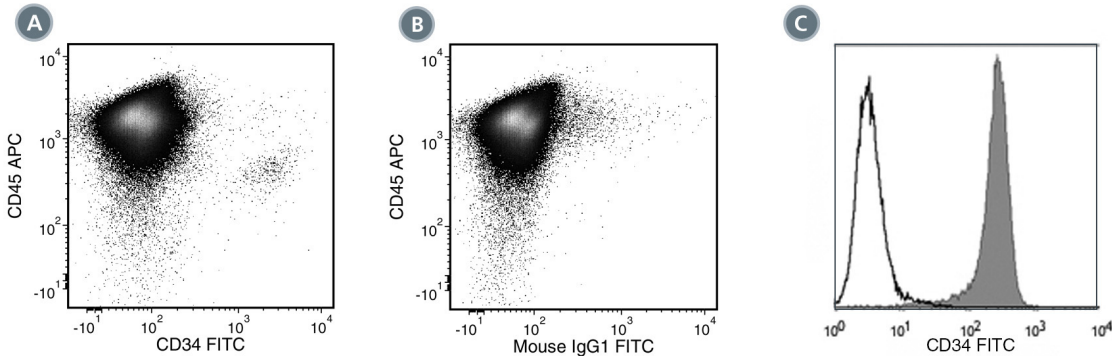
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|-----------------------|---|
| Verified: | FC |
| Reported: | CyTOF®, FC, ICC, IF, IHC |
| Special Applications: | This antibody clone has been verified for purity assessments of cells isolated with EasySep™ Human CD34 Positive Selection Kit (Catalog #18056) and for labeling human mesenchymal cells grown in MesenCult™ Proliferation Kit (Human; Catalog #05411). |

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

Properties

| | |
|------------------------|--|
| Formulation: | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide |
| Purification: | The antibody was purified by affinity chromatography. |
| Stability and Storage: | Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com . |
| Directions for Use: | For flow cytometry the suggested use of this antibody is ≤ 2.0 µg per 1 × 10 ⁶ cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application. Clone 581 is not recommended for WB. |

Data



(A) Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs) labeled with Anti-Human CD34 Antibody, Clone 581, followed by Goat Anti-Mouse IgG (H+L) Antibody, Polyclonal, FITC (Catalog #60138FI) and Anti-Human CD45 Antibody, Clone HI30, APC (Catalog #60018AZ).
 (B) Flow cytometry analysis of human PBMCs labeled with a mouse IgG1, kappa isotype control antibody, followed by Goat Anti-Mouse IgG (H+L) Antibody, Polyclonal, FITC and Anti-Human CD45 Antibody, Clone HI30, APC.
 (C) Flow cytometry analysis of human KG1a myeloid cells labeled with Anti-Human CD34 Antibody, Clone 581, followed by Goat Anti-Mouse IgG (H+L) Antibody, Polyclonal, FITC (filled histogram), or a mouse IgG1, kappa isotype control antibody followed by Goat Anti-Mouse IgG (H+L) Antibody, Polyclonal, FITC (solid line histogram).

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

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