Anti-Human CD34 Antibody, Clone 581, PE

Antibodies

Mouse monoclonal IgG1 antibody against human CD34, PE-conjugated

Catalog	#60013PE	100 tests	5 µL/test
	#60013PE.1	25 tests	5 µL/test

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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).

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:	PE

Applications

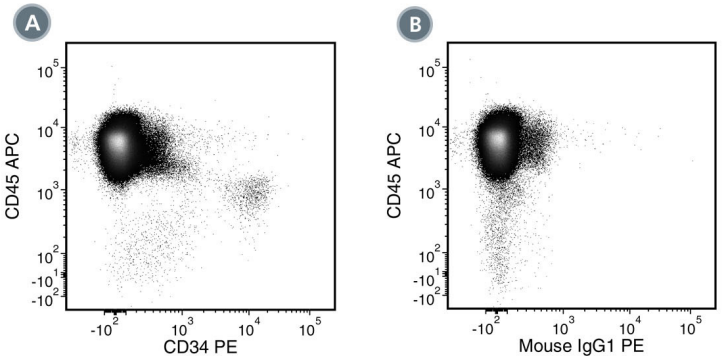
Verified:	CellSep, FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ Human CD34 Positive Selection Kit (Catalog #18056) and for labeling human mesenchymal cells grown in MesenCult™ Proliferation Kit (Human; Catalog #05411).

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

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) 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 request a lot-specific Certificate of Analysis from techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is 5 µL per 1 x 10e6 cells in 100 µL volume or per 100 µL of whole blood. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs) labeled with Anti-Human CD34 Antibody, Clone 581, PE and anti-human CD45 APC.
(B) Flow cytometry analysis of PBMCs labeled with a mouse IgG1, kappa PE isotype control antibody and anti-human CD45 APC.

Related Products

PRODUCT NAME	CATALOG #	SIZE
Anti-Human CD34 Antibody, Clone 581	60013	100 µg
Anti-Human CD34 Antibody, Clone 581, PE	60013PE	100 tests
Anti-Human CD34 Antibody, Clone 581, PE	60013PE.1	25 tests
Anti-Human CD34 Antibody, Clone 581, Alexa Fluor® 488	60013AD	100 tests
Anti-Human CD34 Antibody, Clone 581, Alexa Fluor® 488	60013AD.1	25 tests

References

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7. Steen R, Egeland T. CD34 molecule epitope distribution on cells of haematopoietic origin. Leuk Lymphoma 30(1-2): 23-30, 1998
8. Yoshino N, et al. Upgrading of flow cytometric analysis for absolute counts, cytokines and other antigenic molecules of Cynomolgus monkeys (Macaca fascicularis) by using anti-human cross-reactive antibodies. Exp Anim 49(2): 97-110, 2000 (FC)
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