

Biotin anti-human CD34

Catalog # / Size: 2317620 / 100 µg
2317615 / 25 µg

Clone: 581

Isotype: Mouse IgG1, κ

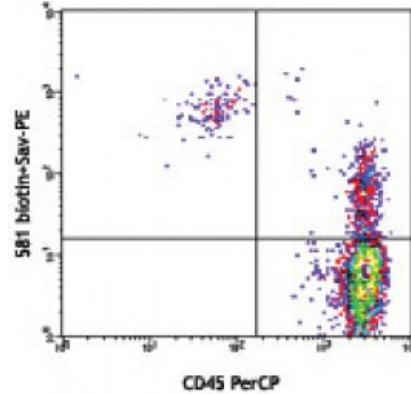
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Workshop Number: V MA27

Concentration: 0.5



Human peripheral blood lymphocytes stained with biotinylated CD34 (clone 581) (top), or mouse IgG1 isotype control (bottom), followed by Sav-PE and co-stained with CD14 APC and CD45 PerCP. Gated on CD14 dim population.

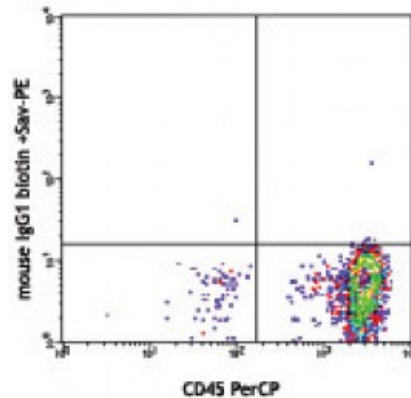
Applications:

Applications: Flow Cytometry

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 ≤1.0 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

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 sections⁵ and immunofluorescence⁶.

- Application References:**
- Schlossman SF, et al. 1995. *Leukocyte Typing V: White Cell Differentiation Antigen*. New York: Oxford University Press.
 - Felschow DM, et al. 2001. *Blood* 97:3768.
 - Rudin CE, et al. 1997. *Br. J. Haematol.* 97:488.
 - Yoshino N, et al. 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
 - Skowasch D, et al. 2003. *Cardiovasc Res.* 60:684. (IHC)
 - Umland O, et al. 2003. *J. Histochem. Cytochem.* 51:977. (IF)



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.

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 In