

# Product Data Sheet

## PE anti-human CD34

**Catalog # / Size:** 343505 / 25 tests  
343506 / 100 tests

**Clone:** 581

**Isotype:** Mouse IgG1,  $\kappa$

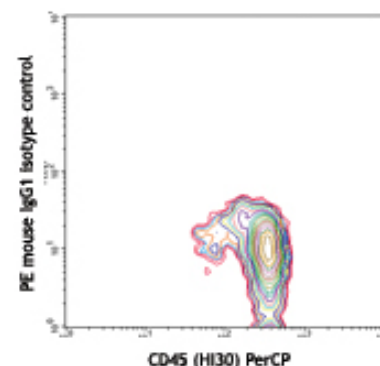
**Workshop Number:** V MA27

**Reactivity:** Human, **Cross-Reactivity:** Cynomolgus

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

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

**Storage:** The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



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)

## Applications:

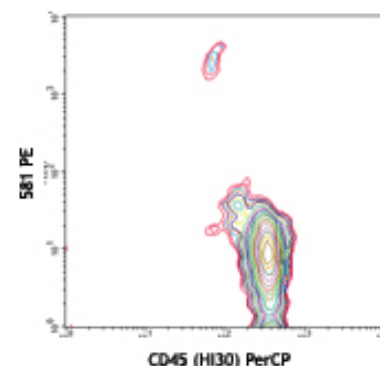
**Applications:** FC - Quality tested

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20  $\mu$ l to 5  $\mu$ l per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100  $\mu$ l staining volume or per 100  $\mu$ l of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. Read more at [www.biolegend.com/testsize](http://www.biolegend.com/testsize) regarding the test size change.

**Application Notes:** The 581 antibody recognizes the class III group epitope which is resistant to sialidase/glycolipase and chymopapain treatment. Additional reported applications (for the relevant formats) include: immunohistochemical staining of paraffin-embedded tissue sections<sup>5</sup> and immunofluorescence<sup>6</sup>.

**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 glycoprophosphoprotein 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:**

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

**Related Products:**

Product	Clone	Application
PE Mouse IgG1, $\kappa$ Isotype Ctrl	MOPC-21	FC, ICFC
Cell Staining Buffer		FC, ICC, ICFC
RBC Lysis Buffer (10X)		FC, ICFC
Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC



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