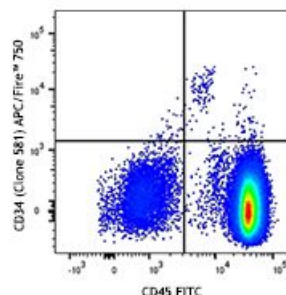


# APC/Fire™ 750 anti-human CD34

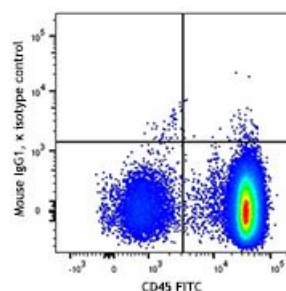
<b>Catalog # /</b>	2317680 / 100 tests
<b>Size:</b>	2317675 / 25 tests
<b>Clone:</b>	581
<b>Isotype:</b>	Mouse IgG1, κ
<b>Immunogen:</b>	Concentrated supernatant from PMA-activated human peripheral blood leukocytes
<b>Reactivity:</b>	Human, Non-human primate
<b>Preparation:</b>	The antibody was purified by affinity chromatography and conjugated with APC/Fire™
<b>Formulation:</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
<b>Workshop Number:</b>	750 under optimal conditions.
<b>Concentration:</b>	Lot-specific



Human peripheral blood mononuclear cells were stained with CD45 FITC, CD14 PE and CD34 (clone 581) APC/Fire™ 750 or mouse IgG1, κ APC/Fire™ 750 isotype control. Data shown was gated on the live, CD14 negative cell population.

## Applications:

<b>Applications:</b>	Flow Cytometry
<b>Recommended Usage:</b>	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 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.



\* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.

<b>Application Notes:</b>	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 sections <sup>5</sup> and immunofluorescence <sup>6</sup> .
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**Application**  
**References:**

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

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 Inc, Hoboken New Jersey.