

### 30-1470PE-Cy5: PE-Cy5 conjugated Anti-CD34 Monoclonal Antibody (Clone:581)

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	581
<b>Application :</b>	FACS
<b>Reactivity :</b>	Human,Non-Human Primates
<b>Conjugate :</b>	R-PE/CY5
<b>Gene :</b>	CD34
<b>Gene ID :</b>	947
<b>Uniprot ID :</b>	P28906
<b>Alternative Name :</b>	CD34
<b>Isotype :</b>	Mouse IgG1 kappa

#### Description

CD34 is a highly glycosylated monomeric 111-115 kDa surface protein, which is present on many stem cell populations. It is a well established stem cell marker, though its expression on human hematopoietic stem cells is reversible. CD34 probably serves as a surface receptor that undergoes receptor-mediated endocytosis and regulates adhesion, differentiation and proliferation of hematopoietic stem cells and other progenitors. CD34 expression is likely to represent a specific state of hematopoietic development that may have altered adhering properties with expanding and differentiating capabilities in both in vitro and in vivo conditions. <Br>

Specificity: The mouse monoclonal antibody 581 reacts with an extracellular epitope of CD34, a 110-115 kDa monomeric transmembrane phosphoglycoprotein expressed on hematopoietic progenitors cells and on the most pluripotential stem cells; it is gradually lost on progenitor cells. The antibody recognizes the class III CD34 epitope resistant to neuraminidase, chymopapain and glycoprotease.

#### Product Info

<b>Amount :</b>	100 tests
<b>Purification :</b>	Purified antibody is conjugated with activated tandem dye of R-phycoerythrin-cyanine 5 (PE-Cy™5) under optimum conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.
<b>Content :</b>	Formulation: Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
<b>Storage condition :</b>	Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze.

#### Application Note

Flow cytometry: The reagent is designed for analysis of human blood cells using 4 µl reagent / 100 µl of whole blood or 106 cells in a suspension. The content of a vial (0.4 ml) is sufficient for 100 tests.

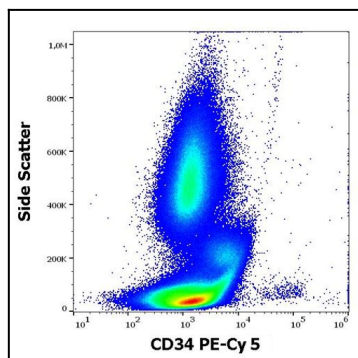


Figure 1: Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD34 (581) PE-Cy5 antibody (4  $\mu$ l reagent / 100  $\mu$ l of peripheral whole blood).

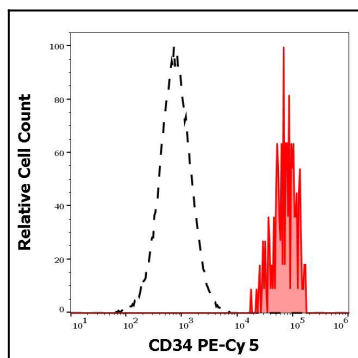


Figure 2: Separation of human CD34 positive stem cells (red-filled) from lymphocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD34 (581) PE-Cy5 antibody (4  $\mu$ l reagent / 100  $\mu$ l of peripheral whole blood).