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# 30-1470PE-Cy5: PE-Cy5.5 conjugated Anti-CD34 Monoclonal Antibody (Clone: 581)

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|---|---|
| **Clonality :** | Monoclonal |
| **Clone Name :** | 581 |
| **Application :** | FACS |
| **Reactivity :** | Human,Non-Human Primates |
| **Conjugate :** | R-PE/CY5 |
| **Gene :** | CD34 |
| **Gene ID :** | 947 |
| **Uniprot ID :** | P28906 |
| **Alternative Name :** | CD34 |
| **Isotype :** | 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.

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

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| **Amount :** | 100 tests |
| **Purification :** | 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. |
| **Content :** | Formulation: Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide |
| **Storage condition :** | 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.

***For Research Use Only. Not for use in diagnostic/therapeutics procedures.***

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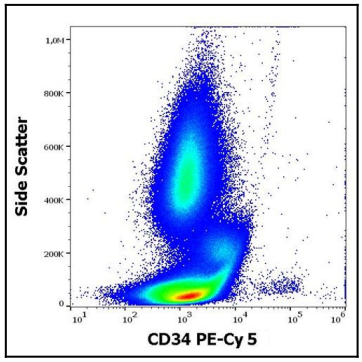



Figure 1: Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD34 (581) PE-Cy5 antibody (4 µl reagent / 100 µl of peripheral whole blood).

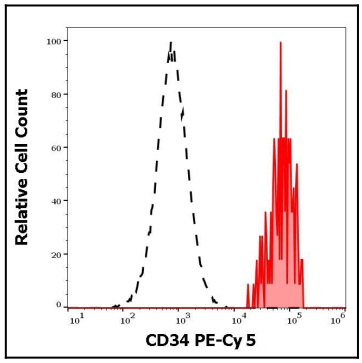



Figure 2: Separation of human CD34 positive stem cells (red-filled) from lymphocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD34 (581) PE-Cy5 antibody (4 µl reagent / 100 µl of peripheral whole blood).

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