

T8-664-T025

## Monoclonal Antibody to CD34 PE-Cy™5 conjugated (25 tests)

Isotype: Mouse IgG1

Clone:

**Specificity:** The mouse monoclonal antibody 581 reacts with CD34 (Mucosialin), 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. HLDA V.; WS Code MA27

Regulatory Status: RUO

**Species Reactivity:** Human, Non-Human Primates

581

- **Preparation:** The purified antibody is conjugated with tandem dye PE-Cy<sup>™</sup>5 under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
- **Storage Buffer:** The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.

**Storage / Stability:** Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.

**Usage:** The reagent is designed for Flow Cytometry analysis of human blood cells using 4  $\mu$ l reagent / 100  $\mu$ l of whole blood or 10<sup>6</sup> cells in a suspension. The content of a vial (0.1 ml) is sufficient for 25 tests.

**Expiration:** See vial label

Lot Number: See vial label

**Background:** 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.

For laboratory research only, not for drug, diagnostic or other use.



Antibodies

References:

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\*Ono F, Sharma BK, Smith CC, Burnett JW, Aurelian L: CD34+ cells in the peripheral blood transport herpes simplex virus DNA fragments to the skin of patients with erythema multiforme (HAEM).J Invest Dermatol. 2005 Jun;124(6):1215-24.

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\*Goardon N, Nikolousis E, Sternberg A, Chu WK, Craddock C, Richardson P, Benson R, Drayson M, Standen G, Vyas P, Freeman S: Reduced CD38 expression on CD34+ cells as a diagnostic test in myelodysplastic syndromes. Haematologica. 2009 Aug;94(8):1160-3.

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