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## Mouse anti-CD34 Monoclonal Antibody

CLX462AP  
CLX462F  
CLX462PE  
CLX462APC

**Clone:** 581

**Isotype:** Mouse IgG1

**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.

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

**Application:** Flow Cytometry; Immunohistochemistry (frozen sections).

**Conjugate Preparation:**

The purified antibody is conjugated with Fluorescein isothiocyanate (FITC), R-Phycoerythrin (PE) or cross-linked Allophycocyanin (APC) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.

**Presentation:**

**Purified:** 0.1 mg (1 mg/mL) purified IgG buffered in PBS with 15 mM sodium azide, approx. pH 7.4. (Purified from hybridoma culture supernatant by protein-A affinity chromatography).

**FITC:** 0.4 mL of FITC conjugated IgG buffered in in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide. Sufficient for 100 tests.

**PE:** 2 mL of PE conjugated IgG buffered in in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide. Sufficient for 100 tests.

**APC:** 1 mL of APC conjugated IgG buffered in in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide. Sufficient for 100 tests.

*Continued Overleaf.....*

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### **Storage / Stability:**

Store in the dark at 2-8°C. Do not freeze all formats. Avoid prolonged exposure to light of conjugates. Do not use after expiration date stamped on vial label.

### **Usage:**

Recommended dilutions for Flow Cytometry analysis of human blood cells using:

**Purified:** 5 µg/ml

**FITC:** 4 µl reagent / 100 µl of whole blood or 10<sup>6</sup> cells in a suspension.

**PE:** 20 µl reagent / 100 µl of whole blood or 10<sup>6</sup> cells in a suspension.

**APC:** 10 µl reagent / 100 µl of whole blood or 10<sup>6</sup> cells in a suspension.

### **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.

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