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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.

### **References:**

\*Ando K, Nakamura Y, Chargui J, Matsuzawa H, Tsuji T, Kato S, Hotta T: Extensive generation of human cord blood CD34(+) stem cells from Lin(-)CD34(-) cells in a long-term in vitro system. *Exp Hematol.* 2000 Jun;28(6):690-9.

\*Janowska-Wieczorek A, Marquez LA, Nabholz JM, Cabuhat ML, Montañó J, Chang H, Rozmus J, Russell JA, Edwards DR, Turner AR: Growth factors and cytokines upregulate gelatinase expression in bone marrow CD34(+) cells and their transmigration through reconstituted basement membrane. *Blood.* 1999 May 15;93(10):3379-90.

\*Felschow DM, McVeigh ML, Hoehn GT, Civin CI, Fackler MJ: The adapter protein CrkL associates with CD34. *Blood.* 2001 Jun 15;97(12):3768-75.

\*Kato S, Ando K, Nakamura Y, Muguruma Y, Sato T, Yabe H, Yabe M, Hattori K, Yasuda Y, Hotta T: Absence of a CD34- hematopoietic precursor population in recipients of CD34+ stem cell transplantation. *Bone Marrow Transplant.* 2001 Sep;28(6):587-95.

\*Suárez L, Vidriales MB, García-Laraña J, Sanz G, Moreno MJ, López A, Barrena S, Martínez R, Tormo M, Palomera L, Lavilla E, López-Berges MC, de Santiago M, de Equiza ME, Miguel JF, Orfao A: CD34+ cells from acute myeloid leukemia, myelodysplastic syndromes, and normal bone marrow display different apoptosis and drug resistance-associated phenotypes. *Clin Cancer Res.* 2004 Nov 15;10(22):7599-606.

\*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.

\*Ninos JM, Jefferies LC, Cogle CR, Kerr WG: The thrombopoietin receptor, c-Mpl, is a selective surface marker for human hematopoietic stem cells. *J Transl Med.* 2006 Feb 16;4:9.

\*Iwasaki H, Kawamoto A, Ishikawa M, Oyamada A, Nakamori S, Nishimura H, Sadamoto K, Horii M, Matsumoto T, Murasawa S, Shibata T, Suehiro S, Asahara T: Dose-dependent contribution of CD34-positive cell transplantation to concurrent vasculogenesis and cardiomyogenesis for functional regenerative recovery after myocardial infarction. *Circulation.* 2006 Mar 14;113(10):1311-25.

\*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.

\*Sanz E, Muñoz-A N, Monserrat J, Van-Den-Rym A, Escoll P, Ranz I, Alvarez-Mon M, de-la-Hera A: Ordering human CD34+CD10-CD19+ pre/pro-B-cell and CD19- common lymphoid progenitor stages in two pro-B-cell development pathways. *Proc Natl Acad Sci U S A.* 2010 Mar 30;107(13):5925-30.

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