

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD34 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse, rat, or porcine CD34 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 756510
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human CD34 Ser32-Thr290 Accession # P28906
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
Immunocytochemistry	8-25 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

<p>Flow Cytometry</p>	<p>Immunocytochemistry</p>
<p>Detection of CD34 in KG-1a Human Cell Line by Flow Cytometry. KG-1a human acute myelogenous leukemia cell line was stained with Mouse Anti-Human CD34 Monoclonal Antibody (Catalog # MAB72271, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B).</p>	<p>CD34 in KG-1 Human Cell Line. CD34 was detected in immersion fixed KG-1 human acute myelogenous leukemia cell line using Mouse Anti-Human CD34 Monoclonal Antibody (Catalog # MAB72271) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cell surfaces and cytoplasm. View our protocol for Fluorescent ICC Staining of Non-adherent Cells.</p>

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The CD34 family of cell surface transmembrane proteins includes the hematopoietic progenitor cell antigen CD34, Podocalyxin, and Endoglycan. This single-pass sialomucin-like transmembrane protein is heavily glycosylated and phosphorylated by Protein kinase C (PKC). CD34 is a 115 kDa glycoprotein found on multipotent precursors, bone marrow stromal cells, embryonic fibroblasts, vascular endothelia, as well as some populations of mesenchymal stem cells, and tumor cell lines. CD34 is involved in the adhesion of stem cells to the bone marrow extracellular matrix or to stromal cells.