SANTA CRUZ BIOTECHNOLOGY, INC.

CD34 (1H6): sc-53511

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CD34 is a heavily glycosylated, transmembrane glycoprotein that is expressed on the surface of lymphohematopoietic stem and progenitor cells, small-vessel endothelial cells, embryonic fibroblasts and some cells in fetal and adult nervous tissue. CD34 antigen expression is highest in the most primitive stem cells and is gradually lost as lineage committed progenitors differentiate. The CD34 antigen is also present on capillary endothelial cells and on bone marrow stromal cells. The CD34 cytoplasmic domain has an intracellular domain that contains consensus sites for activated protein kinase C (PKC) phosphorylation as well as serine, threonine and tyrosine phosphorylation consensus sites.

REFERENCES

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2. DeLisser, H.M., et al. 1994. Platelet endothelial cell adhesion molecule (CD31). Curr. Top. Microbiol. Immunol. 184: 37-45.
3. Krause, D.S., et al. 1994. Characterization of murine CD34, a marker for hematopoietic progenitor and stem cells. Blood 84: 691-701.
4. Holyoake, T.L., et al. 1994. CD34$^+$ positive haemopoietic cells: biology and clinical applications. Blood Rev. 8: 113-124.
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8. Syme, R., et al. 2005. Comparison of CD34 and monocyte-derived dendritic cells from mobilized peripheral blood from cancer patients. Stem Cells 23: 74-81.
9. Young, M.R., et al. 2005. Tumor skewing of CD34$^+$ cell differentiation from a dendritic cell pathway into endothelial cells. Cancer Immunol. Immunother. 55: 558-568.

SOURCE

CD34 (1H6) is a mouse monoclonal antibody raised against CD34 of canine origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD34 (1H6) is available conjugated to either phycoerythrin (sc-53511 PE) or fluorescein (sc-53511 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

CD34 (1H6) is recommended for detection of CD34 of canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and flow cytometry (1 µg per 1 x 10^6 cells).

Molecular Weight of glycosylated CD34: 90-120 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

SELECT PRODUCT CITATIONS

1. Suter, S.E., et al. 2007. CD34$^+$, CD41$^+$ acute megakaryoblastic leukemia in a dog. Vet. Clin. Pathol. 36: 288-292.
2. Willmann, M., et al. 2009. Chemotherapy in canine acute megakaryoblastic leukemia: a case report and review of the literature. In Vivo 23: 911-918.
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RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.