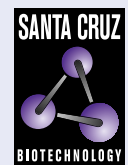


CD34 (B-6): sc-74499



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.

CHROMOSOMAL LOCATION

Genetic locus: CD34 (human) mapping to 1q32.2; Cd34 (mouse) mapping to 1 H6.

SOURCE

CD34 (B-6) is a mouse monoclonal antibody raised against amino acids 151-290 of CD34 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD34 (B-6) is available conjugated to agarose (sc-74499 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74499 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74499 PE), fluorescein (sc-74499 FITC), Alexa Fluor® 488 (sc-74499 AF488), Alexa Fluor® 546 (sc-74499 AF546), Alexa Fluor® 594 (sc-74499 AF594) or Alexa Fluor® 647 (sc-74499 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-74499 AF680) or Alexa Fluor® 790 (sc-74499 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CD34 (B-6) is recommended for detection of CD34 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD34 siRNA (h): sc-29249, CD34 siRNA (m): sc-29993, CD34 shRNA Plasmid (h): sc-29249-SH, CD34 shRNA Plasmid (m): sc-29993-SH, CD34 shRNA (h) Lentiviral Particles: sc-29249-V and CD34 shRNA (m) Lentiviral Particles: sc-29993-V.

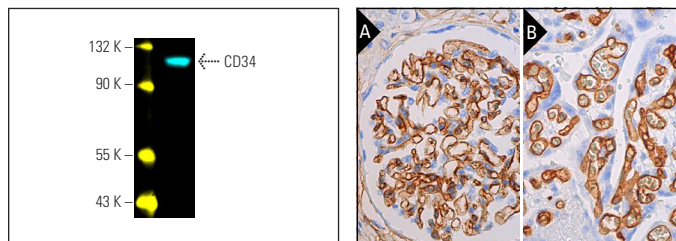
Molecular Weight of glycosylated CD34: 90-120 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, TF-1 cell lysate: sc-2412 or Hs68 cell lysate: sc-2230.

STORAGE

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

DATA



CD34 (B-6) Alexa Fluor® 647: sc-74499 AF647. Direct fluorescent western blot analysis of CD34 expression in TF-1 whole cell lysate. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker™ MW Tag-Alexa Fluor® 488: sc-516790.

CD34 (B-6): sc-74499. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing membrane and cytoplasmic staining of cells in glomeruli and endothelial cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing membrane and cytoplasmic staining of endothelial cells (B).

SELECT PRODUCT CITATIONS

- Zhao, Y., et al. 2012. Altered angiogenesis gene expression in gastrointestinal stromal tumors: potential use in diagnosis, outcome prediction, and treatment. *Neoplasia* 59: 384-392.
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- Li, L., et al. 2014. Critical role of histone demethylase RBP2 in human gastric cancer angiogenesis. *Mol. Cancer* 13: 81.
- Lin, S.Z., et al. 2015. Emodin inhibits angiogenesis in pancreatic cancer by regulating the transforming growth factor-β/*Drosophila* mothers against decapentaplegic pathway and angiogenesis-associated microRNAs. *Mol. Med. Rep.* 12: 5865-5871.
- Dai, L., et al. 2016. Tumor-associated antigen CAPERα and microvessel density in hepatocellular carcinoma. *Oncotarget* 7: 16985-16995.
- Wu, Y.X., et al. 2017. CD146⁺ skeletal stem cells from growth plate exhibit specific chondrogenic differentiation capacity *in vitro*. *Mol. Med. Rep.* 16: 8019-8028.
- Zani, B.C., et al. 2018. Telocytes role during the postnatal development of the Mongolian gerbil jejunum. *Exp. Mol. Pathol.* 105: 130-138.
- Lee, S.W., et al. 2019. Feline-type cystic basal cell tumor filled with abundant melanin pigment-rich fluid in a dog. *J. Vet. Med. Sci.* 81: 269-273.
- Wang, Y.H., et al. 2020. Apelin affects the progression of osteoarthritis by regulating VEGF-dependent angiogenesis and miR-150-5p expression in human synovial fibroblasts. *Cells* 9: 594.

PROTOCOLS

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