SANTA CRUZ BIOTECHNOLOGY, INC.

CD34 (C-18): sc-7045

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.

CHROMOSOMAL LOCATION

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

SOURCE

CD34 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CD34 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-7045 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD34 (C-18) is recommended for detection of CD34 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CD34 (C-18) is also recommended for detection of CD34 in additional species, including equine, canine, bovine and porcine.

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: CD34 (h): 293T Lysate: sc-113830, TF-1 cell lysate: sc-2412 or rat kidney extract: sc-2394.

RESEARCH USE

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

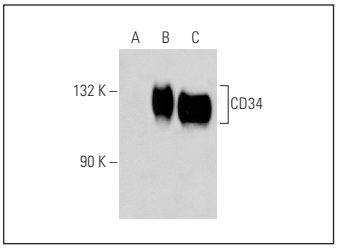
PROTOCOLS

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

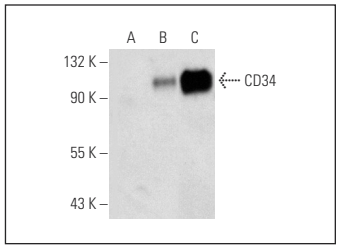
STORAGE

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

DATA



CD34 (C-18): sc-7045. Western blot analysis of CD34 expression in non-transfected 293T: sc-117752 (**A**), human CD34 transfected 293T: sc-113830 (**B**) and TF-1 (**C**) whole cell lysates.



CD34 (C-18): sc-7045. Western blot analysis of CD34 expression in non-transfected 293T: sc-117752 (**A**), human CD34 transfected 293T: sc-174868 (**B**) and TF-1 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Celik-Ozenci, C., et al. 2004. Expressions of VEGF and its receptors in rat corpus luteum during interferon alpha administration in early and pseudopregnancy. Mol. Reprod. Dev. 67: 414-423.
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3. Adas, G., et al. 2011. Mesenchymal stem cells improve the healing of ischemic colonic anastomoses (experimental study). Langenbecks Arch. Surg. 396: 115-126.
4. Jiao, H., et al. 2011. Human umbilical cord blood-derived mesenchymal stem cells inhibit C6 glioma via downregulation of cyclin D1. Neurol. India 59: 241-247.
5. Karaoz, E., et al. 2012. Reduction of lesion in injured rat spinal cord and partial functional recovery of motility after bone marrow derived mesenchymal stem cell transplantation. Turk. Neurosurg. 22: 207-217.
6. Peng, C.C., et al. 2012. Ferulic acid is nephrodamaging while gallic acid is renal protective in long term treatment of chronic kidney disease. Clin. Nutr. 31: 405-414.
7. Zhang, J., et al. 2012. Comparison of beneficial factors for corneal wound-healing of rat mesenchymal stem cells and corneal limbal stem cells on the xenogeneic acellular corneal matrix *in vitro*. Mol. Vis. 18: 161-173.
8. Czernik, M., et al. 2013. Differentiation potential and GFP labeling of sheep bone marrow-derived mesenchymal stem cells. J. Cell. Biochem. 114: 134-143.