

# CD34 (H-140): sc-9095

## 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

1. Buck, C.A., et al. 1994. Cell adhesion receptors and early mammalian heart development: an overview. *C.R. Acad. Sci. III* 316: 838-859.
2. DeLisser, H.M., et al. 1994. Platelet endothelial cell adhesion molecule (CD31). *Curr. Top. Microbiol. Immunol.* 184: 37-45.

## CHROMOSOMAL LOCATION

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

## SOURCE

CD34 (H-140) is a rabbit polyclonal antibody raised against amino acids 151-290 of CD34 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

CD34 (H-140) is recommended for detection of CD34 of human, mouse and to a lesser extent, rat 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).

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: Hs68 cell lysate: sc-2230, TF-1 cell lysate: sc-2412 or HeLa whole cell lysate: sc-2200.

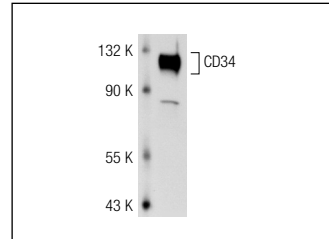
## STORAGE

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

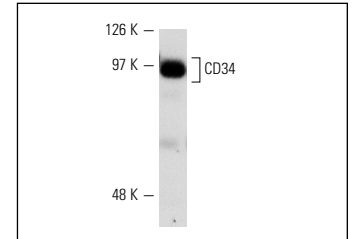
## RESEARCH USE

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

## DATA



CD34 (H-140): sc-9095. Western blot analysis of CD34 expression in TF-1 whole cell lysate.



CD34 (H-140): sc-9095. Western blot analysis of CD34 expression in Hs68 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Junker, K., et al. 2003. Kinetics of cell death in T lymphocytes genetically modified with two novel suicide fusion genes. *Gene Ther.* 10: 1189-1197.
2. Liu, Y., et al. 2008. Effect of vascular endothelial growth factor C (VEGF-C) gene transfer in rat model of secondary lymphedema. *Vascul. Pharmacol.* 49: 44-50.
3. Held-Feindt, J., et al. 2008. Overexpression of CXCL16 and its receptor CXCR6/Bonzo promotes growth of human schwannomas. *Glia* 56: 764-774.
4. Moresi, V., et al. 2008. Tumor necrosis factor- $\alpha$  inhibition of skeletal muscle regeneration is mediated by a caspase-dependent stem cell response. *Stem Cells* 26: 997-1008.
5. Barbaro, V., et al. 2009. Reconstruction of a human hemicornea through natural scaffolds compatible with the growth of corneal epithelial stem cells and stromal keratocytes. *Mol. Vis.* 15: 2084-2093.
6. Lovell, M.J., et al. 2010. Bone marrow mononuclear cells reduce myocardial reperfusion injury by activating the PI3K/Akt survival pathway. *Atherosclerosis* 213: 67-76.
7. Muth, M., et al. 2010. Aberrant proplatelet formation in chronic myeloproliferative neoplasms. *Leuk. Res.* 34: 1424-1429.
8. Grinstein, E., et al. 2011. Rb and nucleolin antagonize in controlling human CD34 gene expression. *Cell. Signal.* 23: 1358-1365.
9. Arakawa, Y., et al. 2012. Effects of pegylated interferon  $\alpha$ 2b on metastasis of hepatocellular carcinoma. *J. Surg. Res.* 172: 95-101.


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