

CD34 (D-6): sc-133082



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

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.

SOURCE

CD34 (D-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.

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.

APPLICATIONS

CD34 (D-6) is recommended for detection of CD34 of 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 shRNA Plasmid (h): sc-29249-SH and CD34 shRNA (h) Lentiviral Particles: sc-29249-V.

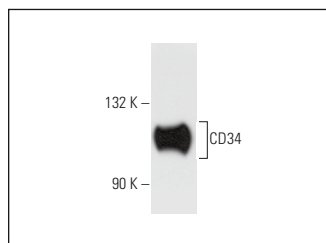
Molecular Weight of glycosylated CD34: 90-120 kDa.

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

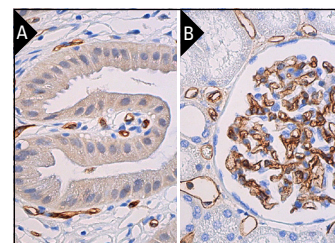
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



CD34 (D-6): sc-133082. Western blot analysis of CD34 expression in TF-1 whole cell lysate.



CD34 (D-6): sc-133082. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing membrane and cytoplasmic staining of endothelial cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing membrane and cytoplasmic staining of endothelial cells (B).

SELECT PRODUCT CITATIONS

1. Tang, C., et al. 2013. Expression of SHP2 and related markers in non-small cell lung cancer: a tissue microarray study of 80 cases. *Appl. Immunohistochem. Mol. Morphol.* 21: 386-394.
2. Wang, X., et al. 2014. Stem cell factor is a novel independent prognostic biomarker for hepatocellular carcinoma after curative resection. *Carcinogenesis* 35: 2283-2290.
3. Wang, N., et al. 2014. Overexpression of chemerin was associated with tumor angiogenesis and poor clinical outcome in squamous cell carcinoma of the oral tongue. *Clin. Oral Investig.* 18: 997-1004.
4. Guo, G., et al. 2015. Overexpression of FRAT1 is associated with malignant phenotype and poor prognosis in human gliomas. *Dis. Markers* 2015: 289750.
5. Peng, C., et al. 2018. Response of hPDLSCs on 3D printed PCL/PLGA composite scaffolds *in vitro*. *Mol. Med. Rep.* 18: 1335-1344.



See **CD34 (IC0115): sc-7324** for CD34 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.