



# Podocalyxin-like 1 (M-300): sc-33139

## BACKGROUND

Sialomucins are a family of cell adhesion molecules that mediate the interaction between leukocytes and endothelial cells during the inflammatory process. Podocalyxin-like protein 1 (PCLP1), a member of the sialomucin family, is a transmembrane glycoprotein and is structurally related to the L-selectin ligand, CD34. PCLP1 encodes a 21 amino acid N-terminal signal peptide and a 26 amino acid transmembrane region. The extracellular domain contains sites for N- and O-linked glycosylation, and the intracellular domain has several potential phosphorylated sites. PCLP1 is expressed on podocyte foot processes, where it maintains the glomerular filtration barrier. It is also expressed in endothelial cells as well as hemangioblasts, a precursor of hematopoietic stem cells (HSC). Subsequently, PCLP1 is thought to be an appropriate marker for hemangioblast detection.

## REFERENCES

1. Lasky, L.A. 1994. Sialomucin ligands for selectins: a new family of cell adhesion molecules. Princess Takamatsu Symp. 24: 81-90.
2. Kershaw, D.B., Thomas, P.E., Wharram, B.L., Goyal, M., Wiggins, J.E., Whiteside, C.I., and Wiggins, R.C. 1995. Molecular cloning, expression, and characterization of podocalyxin-like protein 1 from rabbit as a transmembrane protein of glomerular podocytes and vascular endothelium. *J. Biol. Chem.* 270: 29439-29446.
3. Yang, D.H., Goyal, M., Sharif, K., Kershaw, D., Thomas, P., Dysko, R., and Wiggins, R. 1996. Glomerular epithelial protein 1 and podocalyxin-like protein 1 in inflammatory glomerular disease (crescentic nephritis) in rabbit and man. *Lab. Invest.* 74: 571-584.
4. Sassetti, C., Tangemann, K., Singer, M.S., Kershaw, D.B., and Rosen, S.D. 1998. Identification of podocalyxin-like protein as a high endothelial venule ligand for L-selectin: parallels to CD34. *J. Exp. Med.* 187: 1965-1975.
5. Hara, T., Nakano, Y., Tanaka, M., Tamura, K., Sekiguchi, T., Minehata, K., Copeland, N.G., Jenkins, N.A., Okabe, M., Kogo, H., Mukoyama, Y., and Miyajima, A. 1999. Identification of podocalyxin-like 1 as a novel cell surface marker for hemangioblasts in the murine aorta-gonad-mesonephros region. *Immunity* 11: 567-578.
6. Sassetti, C., Van Zante, A., and Rosen, S.D. 2000. Identification of endoglycan, a member of the CD34/Podocalyxin family of sialomucins. *J. Biol. Chem.* 275: 9001-9010.

## SOURCE

Podocalyxin-like 1 (M-300) is a rabbit polyclonal antibody raised against amino acids 22-321 mapping within an N-terminal extracellular domain of Podocalyxin-like 1 of mouse origin.

## PRODUCT

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

## RESEARCH USE

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

## APPLICATIONS

Podocalyxin-like 1 (M-300) is recommended for detection of Podocalyxin-like 1 of mouse 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 Podocalyxin-like 1 siRNA (m): sc-44765.

Molecular Weight of Podocalyxin-like 1: 165 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.