SANTA CRUZ BIOTECHNOLOGY, INC.

podoplanin (FL-162): sc-134482

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Puromycin aminonucleoside nephrosis (PAN) is a rat model for human minimal change nephropathy. During PAN, severe proteinuria is induced that is paralleled by a reduced expression of a rat podocyte protein, named podoplanin. Podoplanin, also known as glycoprotein 38 (gp38), is a type I membrane protein. Podoplanin localizes in stromal cells of peripheral lymphoid tissue and thymic epithelial cells. As a regulator of the lymphatic endothelium, podoplanin probably plays a role in maintaining the unique shape of podocytes.

REFERENCES

1. Farr, A.G., Berry, M.L., Kim, A., Nelson, A.J., Welch, M.P. and Aruffo, A. 1992. Characterization and cloning of a novel glycoprotein expressed by stromal cells in T-dependent areas of peripheral lymphoid tissues. J. Exp. Med. 176: 1477-1482.
2. Farr, A., Nelson, A. and Hosier, S. 1992. Characterization of an antigenic determinant preferentially expressed by type I epithelial cells in the murine thymus. J. Histochem. Cytochem. 40: 651-664.
3. Schoppmann, S.F, Birner, P., Studer, P. and Breiteneder-Geleff, S. 2001. Lymphatic microvessel density and lymphovascular invasion assessed by anti-podoplanin immunostaining in human breast cancer. Anticancer Res. 21: 2351-2355.
4. Ramirez, M.I., Millien, G., Hinds, A., Cao, Y., Seldin, D.C. and Williams, M.C. 2003. T1a, a lung type I cell differentiation gene, is required for normal lung cell proliferation and alveolus formation at birth. Dev. Biol. 256: 61-72.

CHROMOSOMAL LOCATION

Genetic locus: PDPN (human) mapping to 1p36.21.

SOURCE

podoplanin (FL-162) is a rabbit polyclonal antibody raised against amino acids 1-162 representing full length podoplanin 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

podoplanin (FL-162) is recommended for detection of podoplanin of 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), 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 podoplanin siRNA (h): sc-62834, podoplanin shRNA Plasmid (h): sc-62834-SH and podoplanin shRNA (h) Lentiviral Particles: sc-62834-V.

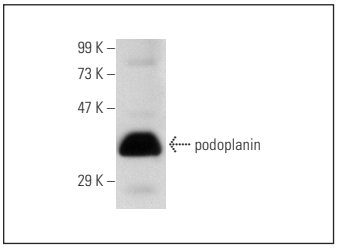
Molecular Weight of podoplanin: 43 kDa.

Positive Controls: A-673 cell lysate: sc-2414.

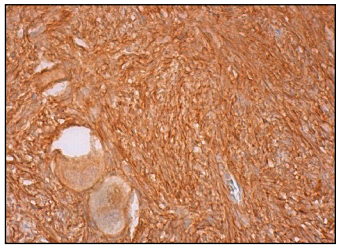
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



podoplanin (FL-162): sc-134482. Western blot analysis of podoplanin expression in A-673 whole cell lysate.



podoplanin (FL-162): sc-134482. Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing cytoplasmic staining of follicle cells and cytoplasmic and membrane staining of ovarian stroma cells.

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.

PROTOCOLS

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