

podoplanin (A-18): sc-23564

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

- Schoppmann, S.F., et al. 2001. Lymphatic microvessel density and lymphovascular invasion assessed by anti-podoplanin immunostaining in human breast cancer. *Anticancer Res.* 21: 2351-2355.
- Groger, M., et al. 2004. IL-3 induces expression of lymphatic markers prox-1 and podoplanin in human endothelial cells. *J. Immunol.* 173: 7161-7169.
- Nisato, R.E., et al. 2004. Generation and characterization of telomerase-transfected human lymphatic endothelial cells with an extended life span. *Am J Pathol.* 165: 11-24.
- SWISS-PROT/TrEMBL (O62011). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: Gp38 (mouse) mapping to 4 E1.

SOURCE

podoplanin (A-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of podoplanin 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.

Blocking peptide available for competition studies, sc-23564 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

podoplanin (A-18) is recommended for detection of podoplanin 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 podoplanin siRNA (m): sc-44756, podoplanin shRNA Plasmid (m): sc-44756-SH and podoplanin shRNA (m) Lentiviral Particles: sc-44756-V.

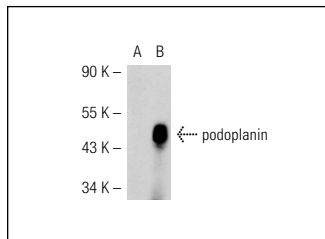
Molecular Weight of podoplanin: 43 kDa.

Positive Controls: podoplanin (m): 293T Lysate: sc-125842, mouse kidney extract: sc-2255 or mouse thymus extract: sc-2406.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



podoplanin (A-18): sc-23564. Western blot analysis of podoplanin expression in non-transfected: sc-117752 (A) and mouse podoplanin transfected: sc-125842 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Ochoa-Alvarez, J.A., et al. 2012. Plant lectin can target receptors containing sialic acid, exemplified by podoplanin, to inhibit transformed cell growth and migration. *PLoS ONE* 7: e41845.

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.



Try **podoplanin (8.1.1): sc-53533** or **podoplanin (B-11): sc-166906**, our highly recommended monoclonal alternatives to podoplanin (A-18). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **podoplanin (8.1.1): sc-53533**.