

PCLN-1 (7A2): sc-130561

BACKGROUND

Tight junctions mediate the regulation of the paracellular pathway between epithelial and endothelial cells. They form close connections to eliminate the extracellular space and regulate the flow of solutes between cells. The human gene PCLN-1 (paracellin-1) is related to the claudin family of integral membrane proteins, which localize to tight junctions. PCLN-1 contains four trans-membrane domains and intracellular amino- and carboxy- termini, characteristic of the other claudin family members, and is detected only at the tight junctions of kidney tissue. PCLN-1 forms an intercellular pore and controls the resorption of magnesium and calcium in the thick ascending limb of Henle (TAL). Mutations in PCLN-1 cause renal magnesium wasting, which may contribute to a rare autosomal recessive disease, renal hypomagnesemia with hypercalciuria and nephrocalcinosis.

REFERENCES

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4. Madara, J.L. 1998. Regulation of the movement of solutes across tight junctions. *Annu. Rev. Physiol.* 60: 143-159.
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9. Morita, K., et al. 1999. Claudin multigene family encoding four-transmembrane domain protein components of tight junction strands. *Proc. Natl. Acad. Sci. USA* 96: 511-516.

CHROMOSOMAL LOCATION

Genetic locus: CLDN16 (human) mapping to 3q28; Cldn16 (mouse) mapping to 16 B2.

SOURCE

PCLN-1 (7A2) is a mouse monoclonal antibody raised against a peptide sequence corresponding to PCLN-1 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PCLN-1 (7A2) is recommended for detection of PCLN-1 of mouse, rat and human origin by 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).

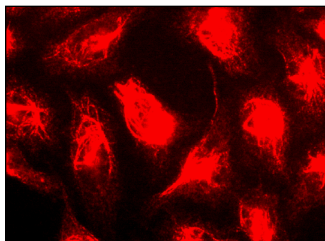
Suitable for use as control antibody for PCLN-1 siRNA (h): sc-42588, PCLN-1 siRNA (m): sc-42589, PCLN-1 shRNA Plasmid (h): sc-42588-SH, PCLN-1 shRNA Plasmid (m): sc-42589-SH, PCLN-1 shRNA (h) Lentiviral Particles: sc-42588-V and PCLN-1 shRNA (m) Lentiviral Particles: sc-42589-V.

Molecular Weight of PCLN-1: 36 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) 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.

DATA



PCLN-1 (7A2): sc-130561. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

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 for detailed protocols and support products.