SANTA CRUZ BIOTECHNOLOGY, INC.

PDZK1 (42): sc-136028

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Proteins containing PDZ domains play a role in a wide array of biological functions including protein scaffolding, organization of ion channels and signal transduction. The PDZ domain containing protein PDZK1 interacts with multiple targets, including MAP17 and cMOAT and also NaPi-IIa, which implicates PDZK1 in ion channel formation. PDZK1 localizes to the plasma membrane of epithelial cells, where it is able to interact simultaneously with more than one type of channel, by utilizing its four PDZ domains, and thus acts as an adaptor between different cell surface receptors. Furthermore, PDZK1 is markedly upregulated in human carcinomas of epithelial origin, and the cluster formed by its association with cMOAT and MAP17 may potentially play role in multidrug resistance. Therefore, PDZK1 may be a new target for cancers cells resistance to chemotherapeutic agents.

REFERENCES

1. Kocher, O., Comella, N., Gilchrist, A., Pal, R., Tognazzi, K., Brown, L.F. and Knoll, J.H. 1999. PDZK1, a novel PDZ domain-containing protein upregulated in carcinomas and mapped to chromosome 1q21, interacts with cMOAT (MRP2), the multidrug resistance-associated protein. Lab. Invest. 79: 1161-1170.
2. Kocher, O., Pal, R., Roberts, M., Cirovic, C. and Gilchrist, A. 2003. Targeted disruption of the PDZK1 gene by homologous recombination. Mol. Cell. Biol. 23: 1175-1180.
3. Gisler, S.M., Pribanic, S., Bacic, D., Forrer, P., Gantenbein, A., Sabourin, L.A., Tsuji, A., Zhao, Z.S., Manser, E., Biber, J. and Murer, H. 2003. PDZK1: I. A major scaffolder in brush borders of proximal tubular cells. Kidney Int. 64: 1733-1745.
4. Gentzsch. M., Cui, L., Mengos, A., Chang, X.B., Chen, J.H. and Riordan, J.R. 2003. The PDZ-binding chloride channel ClC-3B localizes to the Golgi and associates with cystic fibrosis transmembrane conductance regulator-interacting PDZ proteins. J. Biol. Chem. 278: 6440-6449.

CHROMOSOMAL LOCATION

Genetic locus: Pdzk1 (mouse) mapping to 3 F2.1.

SOURCE

PDZK1 (42) is a mouse monoclonal antibody raised against amino acids 431-523 of PDZK1 of rat origin.

PRODUCT

Each vial contains 50 µg IgG_1 in 0.5 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.

PROTOCOLS

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

APPLICATIONS

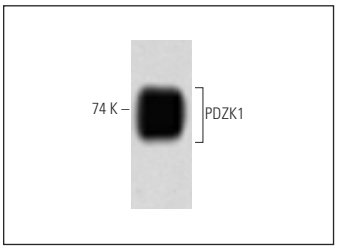
PDZK1 (42) is recommended for detection of PDZK1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for PDZK1 siRNA (m): sc-152145, PDZK1 shRNA Plasmid (m): sc-152145-SH and PDZK1 shRNA (m) Lentiviral Particles: sc-152145-V.

Molecular Weight of PDZK1: 63/70 kDa.

Positive Controls: rat kidney extract: sc-2394.

DATA



PDZK1 (42): sc-136028. Western blot analysis of PDZK1 expression in rat kidney tissue extract.

RESEARCH USE

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