SANTA CRUZ BIOTECHNOLOGY, INC.

PDZK1 (M-16): sc-27289

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 a role in multidrug resistance. Therefore, PDZK1 may be a new target for cancers cells resistance to chemotherapeutic agents.

REFERENCES

1. Kocher, O., et al. 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., et al. 2003. Targeted disruption of the PDZK1 gene by homologous recombination. Mol. Cell. Biol. 23: 1175-1180.
3. Gisler, S.M., et al. 2003. PDZK1: I. A major scaffolder in brush borders of proximal tubular cells. Kidney Int. 64: 1733-1745.
4. Gentzsch, M., et al. 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 (M-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PDZK1 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-27289 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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 or our catalog for detailed protocols and support products.

APPLICATIONS

PDZK1 (M-16) is recommended for detection of PDZK1 of mouse and rat origin and Diphor-1 of rat 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 PDZK1 siRNA (m): sc-152145, PDZK1 shRNA Plasmid (m): sc-152145-SH and PDZK1 shRNA (m) Lentiviral Particles: sc-152145-V.

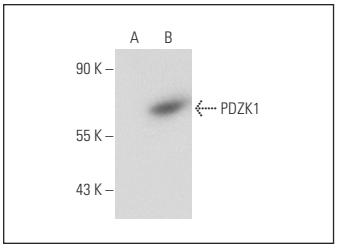
Molecular Weight of PDZK1: 63/70 kDa.

Positive Controls: PDZK1 (m): 293T Lysate: sc-122475 or rat kidney extract: sc-2394.

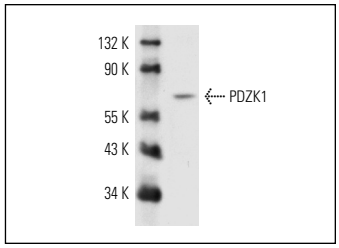
RECOMMENDED SECONDARY REAGENTS

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



PDZK1 (M-16): sc-27289. Western blot analysis of PDZK1 expression in non-transfected: sc-117752 (**A**) and mouse PDZK1 transfected: sc-122475 (**B**) 293T whole cell lysates.



PDZK1 (M-16): sc-27289. Western blot analysis of PDZK1 expression in rat kidney tissue extract.

RESEARCH USE

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