

# PDZK4 (N-12): sc-168923

## BACKGROUND

PDZK4 (PDZ domain containing 4), also known as PDZRN4L (PDZ domain-containing RING finger protein 4-like protein) or LU1, is a 769 amino acid coiled-coil protein that contains one PDZ (DHR) domain. Encoded by a gene that maps to human chromosome Xq28, PDZK4 is conserved in canine, bovine, mouse, rat and zebrafish. PDZK4 localizes to cytoplasm and is expressed specifically in adult and fetal brain. PDZK4 functions as an oncogene and is up-regulated in synovial carcinomas. Treatment of synovial sarcoma cells with small interfering RNA (siRNA) inhibits PDZK4 expression, resulting in tumor-cell growth suppression, suggesting that inappropriate expression of PDZK4 may play a role synovial sarcoma cell proliferation.

## REFERENCES

- Okada, K., et al. 2004. Oncogenic role of NALP7 in testicular seminomas. *Cancer Sci.* 95: 949-954.
- Katoh, M., et al. 2004. Identification and characterization of PDZRN3 and PDZRN4 genes in silico. *Int. J. Mol. Med.* 13: 607-613.
- Katoh, M., et al. 2004. Identification and characterization of human PDZRN4L gene and mouse Pdzrn4l gene in silico. *Int. J. Mol. Med.* 13: 923-927.
- Nagayama, S., et al. 2004. Identification of PDZK4, a novel human gene with PDZ domains, that is upregulated in synovial sarcomas. *Oncogene* 23: 5551-5557.
- Fukukawa, C., et al. 2005. Molecular target therapy for synovial sarcoma. *Future Oncol.* 1: 805-812.
- Carvalho, C.M., et al. 2009. Complex rearrangements in patients with duplications of MECP2 can occur by fork stalling and template switching. *Hum. Mol. Genet.* 18: 2188-2203.
- Filion, C., et al. 2009. The EWSR1/NR4A3 fusion protein of extraskelatal myxoid chondrosarcoma activates the PPARG nuclear receptor gene. *J. Pathol.* 217: 83-93.

## CHROMOSOMAL LOCATION

Genetic locus: PDZD4 (human) mapping to Xq28; Pdzd4 (mouse) mapping to X A7.3.

## SOURCE

PDZK4 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PDZK4 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.

Blocking peptide available for competition studies, sc-168923 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

PDZK4 (N-12) is recommended for detection of PDZK4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other PDZK family members.

PDZK4 (N-12) is also recommended for detection of PDZK4 in additional species, including canine.

Suitable for use as control antibody for PDZK4 siRNA (h): sc-91134, PDZK4 siRNA (m): sc-152148, PDZK4 shRNA Plasmid (h): sc-91134-SH, PDZK4 shRNA Plasmid (m): sc-152148-SH, PDZK4 shRNA (h) Lentiviral Particles: sc-91134-V and PDZK4 shRNA (m) Lentiviral Particles: sc-152148-V.

Molecular Weight of PDZK4: 86 kDa.

## 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) 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.