SANTA CRUZ BIOTECHNOLOGY, INC.

Prickle1 (Y-20): sc-69228

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Prickle1, also known as RILP or EPM1B, is an 831 amino acid protein that contains one PET domain and 3 LIM zinc-binding domains and localizes to the cytoplasm, as well as to the nuclear membrane. Expressed at higher levels in placenta and at lower levels in liver, brain, kidney, lung and pancreas, Prickle1 is thought to function as a nuclear receptor that interacts with NRSF, a silencer protein that binds the DNA sequence element NRSE (neuron-restrictive silencer element). Defects in the gene encoding Prickle1 are associated with autosomal recessive progressive myoclonic epilepsy-1B, which is characterized by quick jerks of the arms, shoulders or legs. The gene encoding Prickle1 maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome.

REFERENCES

1. Jenny, A., et al. 2003. Prickle and Strabismus form a functional complex to generate a correct axis during planar cell polarity signaling. EMBO J. 22: 4409-4420.
2. Katoh, M., et al. 2003. Identification and characterization of human PRICKLE1 and PRICKLE2 genes as well as mouse Prickle1 and Prickle2 genes homologous to *Drosophila* tissue polarity gene prickle. Int. J. Mol. Med. 11: 249-256.
3. Shimojo, M., et al. 2003. REST/NRSF-interacting LIM domain protein, a putative nuclear translocation receptor. Mol. Cell. Biol. 23: 9025-9031.
4. Chan, D.W., et al. 2006. Prickle1 negatively regulates Wnt/β-catenin pathway by promoting Dishevelled ubiquitination/degradation in liver cancer. Gastroenterology 131: 1218-1227.
5. Greco, S.J., et al. 2007. Synergy between the RE-1 silencer of transcription and NFκB in the repression of the neurotransmitter gene TAC1 in human mesenchymal stem cells. J. Biol. Chem. 282: 30039-30050.

CHROMOSOMAL LOCATION

Genetic locus: PRICKLE1 (human) mapping to 12q12; Prickle1 (mouse) mapping to 15 E3.

SOURCE

Prickle1 (Y-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Prickle1 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-69228 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.

APPLICATIONS

Prickle1 (Y-20) is recommended for detection of Prickle1 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).

Prickle1 (Y-20) is also recommended for detection of Prickle1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Prickle1 siRNA (h): sc-76247, Prickle1 siRNA (m): sc-76248, Prickle1 shRNA Plasmid (h): sc-76247-SH, Prickle1 shRNA Plasmid (m): sc-76248-SH, Prickle1 shRNA (h) Lentiviral Particles: sc-76247-V and Prickle1 shRNA (m) Lentiviral Particles: sc-76248-V.

Molecular Weight of Prickle1: 100 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.

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.