SANTA CRUZ BIOTECHNOLOGY, INC.

PCDH17 (H-130): sc-134942

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Protocadherins are a large family of cadherin-like cell adhesion proteins that are involved in the establishment and maintenance of neuronal connections in the brain. There are three protocadherin gene clusters, designated α, β and γ, all of which contain multiple tandemly arranged genes. PCDH17 (protocadherin 17), also known as PCDH68 or PCH68, is a 1,159 amino acid single-pass type I membrane protein that contains 6 cadherin domains. Expressed as multiple alternatively spliced isoforms, PCDH17 is thought to function as a calcium-dependent cell adhesion protein that may play a role in establishing cell-cell connections within brain tissue. The gene encoding PCDH17 maps to human chromosome 13, which houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome.

REFERENCES

1. Suzuki, S.T. 2000. Recent progress in protocadherin research. Exp. Cell Res. 261: 13-18.
2. Yagi, T. and Takeichi, M. 2000. Cadherin superfamily genes: functions, genomic organization and neurologic diversity. Genes Dev. 14: 1169-1180.
3. Nollet, F., Kools, P. and van Roy, F. 2000. Phylogenetic analysis of the cadherin superfamily allows identification of six major subfamilies besides several solitary members. J. Mol. Biol. 299: 551-572.
4. Wu, Q. and Maniatis, T. 2000. Large exons encoding multiple ectodomains are a characteristic feature of protocadherin genes. Proc. Natl. Acad. Sci. USA 97: 3124-3129.
5. Wu, Q., Zhang, T., Cheng, J.F., Kim, Y., Grimwood, J., Schmutz, J., Dickson, M., Noonan, J.P., Zhang, M.Q., Myers, R.M. and Maniatis, T. 2001. Comparative DNA sequence analysis of mouse and human protocadherin gene clusters. Genome Res. 11: 389-404.
6. Kim, S.Y., Chung, H.S., Sun, W. and Kim, H. 2007. Spatiotemporal expression pattern of non-clustered protocadherin family members in the developing rat brain. Neuroscience 147: 996-1021.

CHROMOSOMAL LOCATION

Genetic locus: PCDH17 (human) mapping to 13q21.1; Pcdh17 (mouse) mapping to 14 D3.

SOURCE

PCDH17 (H-130) is a rabbit polyclonal antibody raised against amino acids 578-707 mapping within an N-terminal extracellular domain of PCDH17 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.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

PCDH17 (H-130) is recommended for detection of PCDH17 of mouse, rat and human 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).

PCDH17 (H-130) is also recommended for detection of PCDH17 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PCDH17 siRNA (h): sc-76081, Pcdh17 siRNA (m): sc-152057, PCDH17 shRNA Plasmid (h): sc-76081-SH, Pcdh17 shRNA Plasmid (m): sc-152057-SH, PCDH17 shRNA (h) Lentiviral Particles: sc-76081-V and Pcdh17 shRNA (m) Lentiviral Particles: sc-152057-V.

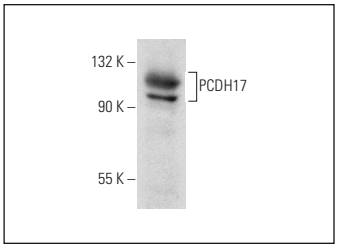
Molecular Weight of PCDH17: 126 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PCDH17 (H-130): sc-134942. Western blot analysis of PCDH17 expression in HL-60 whole cell lysate.

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.