

PCDH8 (H-149): sc-292781

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. PCDH8 (protocadherin-8), also known as Arcadlin or PAPC, is a 1,070 amino acid single-pass type I membrane protein that contains 6 cadherin domains and belongs to the protocadherin family. Localized to the cell membrane and expressed specifically in fetal and adult brain, PCDH8 is thought to play a role in cell adhesion events in the central nervous system (CNS). PCDH8 is inactivated or silenced in breast cancer, suggesting a possible role in tumor suppression. Two isoforms of PCDH8 that differ in their cytoplasmic tails are expressed due to alternative splicing events.

REFERENCES

1. Strehl, S., et al. 1998. Characterization of two novel protocadherins (PCDH8 and PCDH9) localized on human chromosome 13 and mouse chromosome 14. *Genomics* 53: 81-89.
2. Yamagata, K., et al. 1999. Arcadlin is a neural activity-regulated cadherin involved in long term potentiation. *J. Biol. Chem.* 274: 19473-19479.
3. Yagi, T. and Takeichi, M. 2000. Cadherin superfamily genes: functions, genomic organization, and neurologic diversity. *Genes Dev.* 14: 1169-1180.
4. Nollet, F., et al. 2000. Phylogenetic analysis of the cadherin superfamily allows identification of six major subfamilies besides several solitary members. *J. Mol. Biol.* 299: 551-572.
5. 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.
6. Wu, Q., et al. 2001. Comparative DNA sequence analysis of mouse and human protocadherin gene clusters. *Genome Res.* 11: 389-404.
7. Bray, N.J., et al. 2002. Screening the human protocadherin 8 (PCDH8) gene in schizophrenia. *Genes Brain Behav.* 1: 187-191.

CHROMOSOMAL LOCATION

Genetic locus: PCDH8 (human) mapping to 13q14.3; Pcdh8 (mouse) mapping to 14 D3.

SOURCE

PCDH8 (H-149) is a rabbit polyclonal antibody raised against amino acids 1-149 mapping at the N-terminus of PCDH8 of human origin.

PRODUCT

Each vial contains 200 μ g 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

PCDH8 (H-149) is recommended for detection of precursor and mature PCDH8 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

PCDH8 (H-149) is also recommended for detection of precursor and mature PCDH8 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PCDH8 siRNA (h): sc-76085, PCDH8 siRNA (m): sc-152062, PCDH8 shRNA Plasmid (h): sc-76085-SH, PCDH8 shRNA Plasmid (m): sc-152062-SH, PCDH8 shRNA (h) Lentiviral Particles: sc-76085-V and PCDH8 shRNA (m) Lentiviral Particles: sc-152062-V.

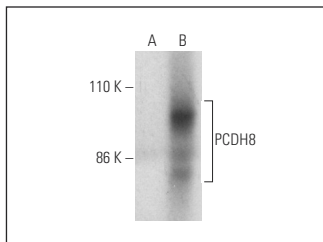
Molecular Weight of PCDH8: 110 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, PCDH8 (h): 293T Lysate: sc-174033 or COLO 320 HSR whole cell lysate.

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



PCDH8 (H-149): sc-292781. Western blot analysis of PCDH8 expression in non-transfected: sc-117752 (A) and human PCDH8 transfected: sc-174033 (B) 293T whole cell lysates.

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.