

PCDH8 (N-15): sc-84562

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

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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.
8. Makarenkova, H., et al. 2005. Alternatively spliced variants of protocadherin 8 exhibit distinct patterns of expression during mouse development. *Biochim. Biophys. Acta* 1681: 150-156.
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CHROMOSOMAL LOCATION

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

STORAGE

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

RESEARCH USE

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

SOURCE

PCDH8 (N-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of PCDH8 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84562 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PCDH8 (N-15) is recommended for detection of PCDH8 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 PCDH family members.

PCDH8 (N-15) is also recommended for detection of 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.

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) 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.