

PCDH8 (D-7): sc-377348

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 six 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., et al. 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.

CHROMOSOMAL LOCATION

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

SOURCE

PCDH8 (D-7) is a mouse monoclonal antibody raised against amino acids 1-149 mapping at the N-terminus of PCDH8 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PCDH8 (D-7) is available conjugated to agarose (sc-377348 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377348 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377348 PE), fluorescein (sc-377348 FITC), Alexa Fluor[®] 488 (sc-377348 AF488), Alexa Fluor[®] 546 (sc-377348 AF546), Alexa Fluor[®] 594 (sc-377348 AF594) or Alexa Fluor[®] 647 (sc-377348 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-377348 AF680) or Alexa Fluor[®] 790 (sc-377348 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

PCDH8 (D-7) is recommended for detection of precursor and mature PCDH8 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

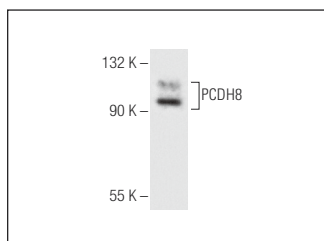
Molecular Weight of PCDH8: 110 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409.

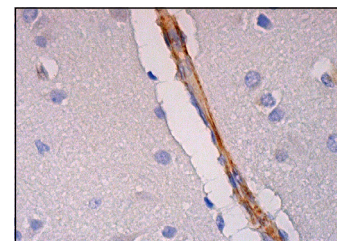
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PCDH8 (D-7): sc-377348. Western blot analysis of PCDH8 expression in IMR-32 whole cell lysate.



PCDH8 (D-7): sc-377348. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing membrane and cytoplasmic staining of endothelial cells.

SELECT PRODUCT CITATIONS

1. Miralles, C.P., et al. 2020. Expression of protocadherin- γ C4 protein in the rat brain. *J. Comp. Neurol.* 528: 840-864.

STORAGE

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