

PCDH8 (h): 293T Lysate: sc-174033

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. 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.
9. Yu, J.S., et al. 2008. PCDH8, the human homolog of PAPC, is a candidate tumor suppressor of breast cancer. *Oncogene* 27: 4657-4665.

CHROMOSOMAL LOCATION

Genetic locus: PCDH8 (human) mapping to 13q14.3.

PRODUCT

PCDH8 (h): 293T Lysate represents a lysate of human PCDH8 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

PCDH8 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive PCDH8 antibodies. Recommended use: 10-20 μ l per lane.

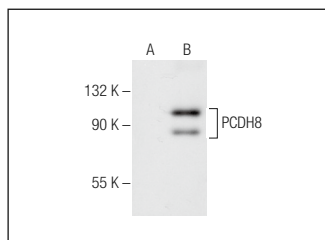
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PCDH8 (D-7): sc-377348 is recommended as a positive control antibody for Western Blot analysis of enhanced human PCDH8 expression in PCDH8 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

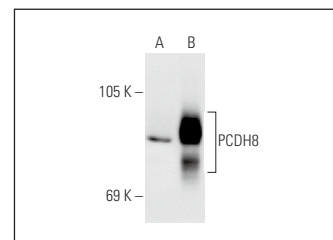
RECOMMENDED SUPPORT REAGENTS

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.

DATA



PCDH8 (D-7): sc-377348. Western blot analysis of PCDH8 expression in non-transfected: sc-117752 (A) and human PCDH8 transfected: sc-174033 (B) 293T whole cell lysates.



PCDH8 (JK-19): sc-81817. 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 for detailed protocols and support products.