

PCDH1 (h): 293T Lysate: sc-115449

BACKGROUND

Protocadherins are a subfamily of cadherins, a large group of related glycoproteins that mediate calcium-dependent cell-to-cell adhesion via a homophilic mechanism. Involved in a variety of functions, protocadherins help to regulate neural development and synapse formation. PCDH1 (protocadherin 1), also known as PC42 or PCDH42, is a 1,026 amino acid single-pass type I membrane protein that contains seven cadherin domains and is a member of the protocadherin family. Localized to cell-cell and cell-matrix boundaries and expressed at high levels in brain and neuro-glial cells, PCDH1 is thought to be involved in cell adhesion and cell-cell interactions and may play a role in neuronal development. PCDH1 contains a C-terminal cytoplasmic region, an extracellular region and a transmembrane region, and is expressed as two isoforms due to alternative splicing events.

REFERENCES

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2. Sago, H., Kitagawa, M., Obata, S., Mori, N., Taketani, S., Rochelle, J.M., Seldin, M.F., Davidson, M., St John, T. and Suzuki, S.T. 1995. Cloning, expression, and chromosomal localization of a novel cadherin-related protein, protocadherin-3. *Genomics* 29: 631-640.
3. Yagi, T. and Takeichi, M. 2000. Cadherin superfamily genes: functions, genomic organization, and neurologic diversity. *Genes Dev.* 14: 1169-1180.
4. Noll, 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.
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. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603626. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Triana-Baltzer, G.B. and Blank, M. 2006. Cytoplasmic domain of protocadherin- α enhances homophilic interactions and recognizes cytoskeletal elements. *J. Neurobiol.* 66: 393-407.
8. 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.

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.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: PCDH1 (human) mapping to 5q31.3.

PRODUCT

PCDH1 (h): 293T Lysate represents a lysate of human PCDH1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

PCDH1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive PCDH1 antibodies. Recommended use: 10-20 µl per lane.

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

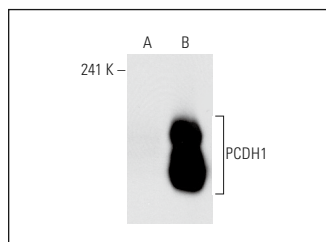
PCDH1 (S-6): sc-81816 is recommended as a positive control antibody for Western Blot analysis of enhanced human PCDH1 expression in PCDH1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

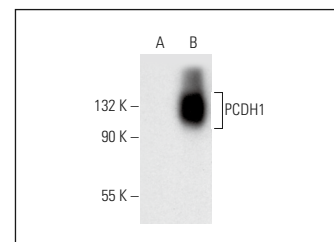
To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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



PCDH1 (S-6): sc-81816. Western blot analysis of PCDH1 expression in non-transfected: sc-117752 (A) and human PCDH1 transfected: sc-115449 (B) 293T whole cell lysates.



PCDH1 (B-11): sc-398263. Western blot analysis of PCDH1 expression in non-transfected: sc-117752 (A) and human PCDH1 transfected: sc-115449 (B) 293T whole cell lysates.

RESEARCH USE

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