

# PCDHA9 (L-13): sc-103802

## 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  $\alpha$ ,  $\beta$  and  $\gamma$ , all of which contain multiple tandemly arranged genes. PCDHA9 (protocadherin  $\alpha$  9), also known as KIAA0345, is a 950 amino acid single-pass type I membrane protein that contains six cadherin domains and is encoded by a gene which is located within the protocadherin  $\alpha$  gene cluster on human chromosome 5. Existing as multiple alternatively spliced isoforms, PCDHA9 functions as a potential calcium-dependent cell adhesion protein that may be involved in the establishment and maintenance of neuronal connections within the brain.

## REFERENCES

1. Suzuki, S.T. 2000. Recent progress in protocadherin research. *Exp. Cell Res.* 261: 13-18.
2. Yagi, T. and Takeichi, M. 2000. Cadherin superfamily genes: functions, genomic organization, and neurologic diversity. *Genes Dev.* 14: 1169-1180.
3. Nollet, 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.
4. 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.
5. Wu, Q., Zhang, T., Cheng, J.F., Kim, Y., Grimwood, J., Schmutz, J., Dickson, M., Noonan, J.P., Zhang, M.Q., Myers, R.M. and Maniatis, T. 2001. Comparative DNA sequence analysis of mouse and human protocadherin gene clusters. *Genome Res.* 11: 389-404.
6. Noonan, J.P., Li, J., Nguyen, L., Caoile, C., Dickson, M., Grimwood, J., Schmutz, J., Feldman, M.W. and Myers, R.M. 2003. Extensive linkage disequilibrium, a common 16.7 kilobase deletion, and evidence of balancing selection in the human protocadherin  $\alpha$  cluster. *Am. J. Hum. Genet.* 72: 621-635.
7. Ribich, S., Tasic, B. and Maniatis, T. 2006. Identification of long-range regulatory elements in the protocadherin  $\alpha$  gene cluster. *Proc. Natl. Acad. Sci. USA* 103: 19719-19724.
8. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 606314. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: PCDHA9 (human) mapping to 5q31.3.

## SOURCE

PCDHA9 (L-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of PCDHA9 of human origin.

## RESEARCH USE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103802 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

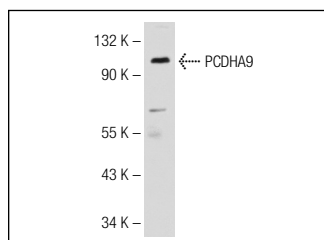
PCDHA9 (L-13) is recommended for detection of PCDHA9 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other PCDHA family members.

Suitable for use as control antibody for PCDHA9 siRNA (h): sc-106385, PCDHA9 shRNA Plasmid (h): sc-106385-SH and PCDHA9 shRNA (h) Lentiviral Particles: sc-106385-V.

Molecular Weight of PCDHA9: 102 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

## DATA



PCDHA9 (L-13): sc-103802. Western blot analysis of PCDHA9 expression in HL-60 whole cell lysate.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.