PCDH9 (E-20): sc-84563

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BACKGROUND

Protocadherins are a subfamily of cadherins, a large group of related glyco-proteins that mediate calcium-dependent cell-to-cell adhesion via a homo-philic mechanism. Involved in a variety of functions, protocadherins help to regulate neural development and synapse formation. PCDH9 (protocadherin 9) is a member of the δ1-protocadherin family comprised of PCDH1, PCDH7, PCDH9 and PCDH11. Localized to the cell membrane and expressed primarily in the brain, PCDH9 is found in synaptic junctions, where it functions as a neuronal receptor involved in signal transduction and maintaining specific neuronal connections. PCDH9 contains seven cadherin domains and exists as two isoforms produced by alternative splicing. Expression of PCDH9 is found in hairy cell leukemia, a form of chronic lymphocytic leukemia.

REFERENCES

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2. Alagramam, K.N., Yuan, H., Kuehn, M.H., Murcia, C.L., Wayne, S., Srisailpathy, C.R., Lowry, R.B., Knaus, R., Van Laer, L., Bernier, F.P., Schwartz, S., Lee, C., Morton, C.C., Mullins, R.F., Ramesh, A., Van Camp, G., et al. 2001. Mutations in the novel protocadherin PCDH15 cause Usher syndrome type 1F. Hum. Mol. Genet. 10: 1709-1718.

3. Vanhalst, K., Kools, P., Staes, K., van Roy, F. and Redies, C. 2005. δ-proto-cadherins: a gene family expressed differentially in the mouse brain. Cell. Mol. Life Sci. 62: 1247-1259.

4. Redies, C., Vanhalst, K. and Roy, F. 2005. δ-protocadherins: unique struc-tures and functions. Cell. Mol. Life Sci. 62: 2840-2852.

5. 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.

CHROMOSOMAL LOCATION

Genetic locus: PCDH9 (human) mapping to 13q21.32; Pcdh9 (mouse) mapping to 14 E2.1.

SOURCE

PCDH9 (E-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an extracellular domain of PCDH9 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-84563 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

PCDH9 (E-20) is recommended for detection of PCDH9 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.

Suitable for use as control antibody for PCDH9 siRNA (h): sc-76086, Pcdh9 siRNA (m): sc-152063, PCDH9 shRNA Plasmid (h): sc-76086-SH, Pcdh9 shRNA Plasmid (m): sc-152063-SH, PCDH9 shRNA (h) Lentiviral Particles: sc-76086-V and Pcdh9 shRNA (m) Lentiviral Particles: sc-152063-V.

Molecular Weight of PCDH9 isoform 1: 136 kDa.

Molecular Weight of PCDH9 isoform 2: 132 kDa.

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) Immunofluo-rescence: 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.

RESEARCH USE

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

PROTOCOLS

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