

PCDH20 (H-142): sc-292110

BACKGROUND

As a subfamily of the cadherin superfamily, protocadherins are cadherin-like cell adhesion proteins that contain up to seven extracellular domains and are predominantly expressed in the nervous system. Importantly, the adhesion mechanism of protocadherins is distinct from classic cadherins. Through inactivation or overexpression, several protocadherins have been implicated in a variety of cancers. Protocadherin-20 (PCDH20), also known as protocadherin-13, is a 924 amino acid protein containing 6 cadherin domains and potentially functioning as a calcium-dependent cell-adhesion protein. In non-small cell lung cancer cell lines, a homozygous loss of PCDH20 was identified through either deletion of one allele and methylation of the other or methylation of both alleles. Hypermethylation of PCDH20 is associated with worse prognosis and clinical outcome, suggesting that PCDH20 may function as a tumor suppressor.

REFERENCES

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2. Imoto, I., et al. 2006. Frequent silencing of the candidate tumor suppressor PCDH20 by epigenetic mechanism in non-small-cell lung cancers. *Cancer Res.* 66: 4617-4626.
3. Morishita, H., et al. 2007. Protocadherin family: diversity, structure, and function. *Curr. Opin. Cell Biol.* 19: 584-592.
4. Morgan, M. 2008. Models for the recent evolution of protocadherin gene clusters. *BioCell* 32: 9-26.
5. Lee, W., et al. 2008. Olfactory sensory neuron-specific and sexually dimorphic expression of protocadherin 20. *J. Comp. Neurol.* 507: 1076-1086.
6. Yu, J., et al. 2009. Methylation of protocadherin 10, a novel tumor suppressor, is associated with poor prognosis in patients with gastric cancer. *Gastroenterology* 136: 640-651.e1.
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8. Krishna, K., et al. 2009. Expression of cadherin superfamily genes in brain vascular development. *J. Cereb. Blood Flow Metab.* 29: 224-229.
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CHROMOSOMAL LOCATION

Genetic locus: PCDH20 (human) mapping to 13q21.2; Pcdh20 (mouse) mapping to 14 E1.

SOURCE

PCDH20 (H-142) is a rabbit polyclonal antibody raised against amino acids 462-603 mapping within an internal region of PCDH20 of human origin.

PRODUCT

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

APPLICATIONS

PCDH20 (H-142) is recommended for detection of PCDH20 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PCDH20 (H-142) is also recommended for detection of PCDH20 in additional species, including equine and bovine.

Suitable for use as control antibody for PCDH20 siRNA (h): sc-76084, Pcdh20 siRNA (m): sc-152060, PCDH20 shRNA Plasmid (h): sc-76084-SH, Pcdh20 shRNA Plasmid (m): sc-152060-SH, PCDH20 shRNA (h) Lentiviral Particles: sc-76084-V and Pcdh20 shRNA (m) Lentiviral Particles: sc-152060-V.

Molecular Weight of PCDH20: 102 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: 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.

STORAGE

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

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.