

# PCDH20 (N-19): sc-84558

## 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

1. Waters, P.D., et al. 2002. Assignment of the protocadherin 20 (PCDH20) gene to tamar wallaby chromosome 6q by fluorescence *in situ* hybridization. *Cytogenet. Genome Res.* 98: 311D.
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.

## CHROMOSOMAL LOCATION

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

## SOURCE

PCDH20 (N-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of PCDH20 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-84558 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

PCDH20 (N-19) 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 µg per 100-500 µg 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 PCDH family members.

PCDH20 (N-19) is also recommended for detection of PCDH20 in additional species, including equine, canine, bovine and avian.

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.

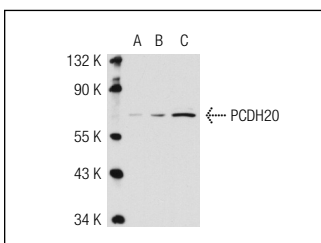
Molecular Weight of PCDH20: 102 kDa.

Positive Controls: PCDH20 (h): 293 Lysate: sc-114092 or MCF7 whole cell lysate: sc-2206.

## 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.

## DATA



PCDH20 (N-19): sc-84558. Western blot analysis of PCDH20 expression in non-transfected 293: sc-110760 (A), human PCDH20 transfected 293: sc-114092 (B) and MCF7 (C) whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

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