## SANTA CRUZ BIOTECHNOLOGY, INC.

# PCDHB4 (N-13): sc-109779



## 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. PCDHB4 (protocadherin  $\beta$ -4) is a 795 amino acid single pass transmembrane protein that is one of 16 proteins in the protocadherin  $\beta$  cluster. Unlike the  $\alpha$  and  $\gamma$  gene clusters whose genes are spliced to downstream constant region exons during transcription, members of the  $\beta$  cluster (such as PCDHB4) do not use constant-region exons to produce mRNAs. As a result, each protocadherin  $\beta$  gene encodes the transmembrane, extracellular and short cytoplasmic domains of the protein. PCDHB4 is likely a calcium-dependent cell adhesion protein that is involved in the maintenance of neural connections in the brain.

## REFERENCES

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- Morishita, H. and Yagi, T. 2007. Protocadherin family: diversity, structure, and function. Curr. Opin. Cell Biol. 19: 584-592.
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## CHROMOSOMAL LOCATION

Genetic locus: PCDHB4 (human) mapping to 5q31.3.

#### SOURCE

PCDHB4 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of PCDHB4 of human origin.

#### **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PRODUCT

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

Blocking peptide available for competition studies, sc-109779 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

PCDHB4 (N-13) is recommended for detection of PCDHB4 of 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 PCDHB family members.

Suitable for use as control antibody for PCDHB4 siRNA (h): sc-92039, PCDHB4 shRNA Plasmid (h): sc-92039-SH and PCDHB4 shRNA (h) Lentiviral Particles: sc-92039-V.

Molecular Weight of PCDHB4: 87 kDa.

### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-TR: sc-2783 (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.