

# PCDHB11 (C-14): sc-109760

## BACKGROUND

PCDHB11 (protocadherin  $\beta$ -11) is a 797 amino acid type I membrane protein that contains 6 cadherin domains. As a potential calcium-dependent cell-adhesion protein, PCDHB11 may be involved in the establishment and maintenance of specific neuronal connections in the brain. The gene that encodes PCDHB11 maps to human chromosome 5q31.3, and is a member of the protocadherin  $\beta$  gene cluster. This gene cluster is one of three related gene clusters tandemly linked on chromosome 5. It demonstrates an unusual genomic organization similar to that of B-cell and T-cell receptor gene clusters. Containing 16 genes and 3 pseudogenes, the  $\beta$  gene cluster encodes 6 extracellular cadherin domains and a cytoplasmic tail that deviates from others in the cadherin superfamily. The extracellular domains interact in a homophilic manner to specify differential cell-cell connections.

## REFERENCES

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3. Nollet, F., et al. 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. Vanhalst, K., et al. 2001. The human and murine protocadherin- $\beta$  one-exon gene families show high evolutionary conservation, despite the difference in gene number. *FEBS Lett.* 495: 120-125.
6. Wu, Q., et al. 2001. Comparative DNA sequence analysis of mouse and human protocadherin gene clusters. *Genome Res.* 11: 389-404.
7. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 606337. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
8. Frank, M. and Kemler, R. 2002. Protocadherins. *Curr. Opin. Cell Biol.* 14: 557-562.

## CHROMOSOMAL LOCATION

Genetic locus: PCDHB11 (human) mapping to 5q31.3.

## SOURCE

PCDHB11 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of PCDHB11 of human origin.

## STORAGE

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

## 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-109760 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PCDHB11 (C-14) is recommended for detection of PCDHB11 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 PCDHB family members.

Suitable for use as control antibody for PCDHB11 siRNA (h): sc-91651, PCDHB11 shRNA Plasmid (h): sc-91651-SH and PCDHB11 shRNA (h) Lentiviral Particles: sc-91651-V.

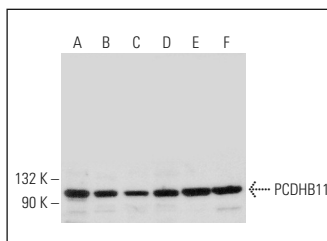
Molecular Weight of PCDHB11: 87 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Raji whole cell lysate: sc-364236 or Jurkat whole cell lysate: sc-2204.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



PCDHB11 (C-14): sc-109760. Western blot analysis of PCDHB11 expression in IMR-32 (A), Raji (B), NCI-H292 (C), HeLa (D), Jurkat (E) and K-562 (F) whole cell lysates.

## RESEARCH USE

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