



# PCDHA11 (Q-14): sc-103746

## 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 (PCDH) gene clusters, designated  $\alpha$ ,  $\beta$  and  $\gamma$ , all of which contain multiple tandemly arranged genes. The protein products of PCDH- $\alpha$  genes interact with Integrin  $\beta$ 1 to promote cell adhesion and form oligomers with PCDH- $\gamma$  proteins at specific membrane sites. PCDHA11 (protocadherin  $\alpha$ -11) is a 949 amino acid single-pass transmembrane protein that contains six cadherin domains and functions as a potential calcium-dependent cell-adhesion protein, possibly playing a role in the creation and maintenance of neuronal connections. There are two isoforms of PCDHA11 that are produced as a result of alternative splicing events.

## REFERENCES

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3. Kaneko, R., et al. 2006. Allelic gene regulation of PCDH- $\alpha$  and PCDH- $\gamma$  clusters involving both monoallelic and biallelic expression in single Purkinje cells. *J. Biol. Chem.* 281: 30551-30560.
4. Ribich, S., et al. 2006. Identification of long-range regulatory elements in the protocadherin- $\alpha$  gene cluster. *Proc. Natl. Acad. Sci. USA* 103: 19719-19724.
5. Bonn, S., et al. 2007. Combinatorial expression of  $\alpha$ - and  $\gamma$ -protocadherins alters their presenilin-dependent processing. *Mol. Cell. Biol.* 27: 4121-4132.
6. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 606317. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Yagi, T. 2008. Clustered protocadherin family. *Dev. Growth Differ.* 50: S131-S140.
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## CHROMOSOMAL LOCATION

Genetic locus: PCDHA11 (human) mapping to 5q31.3.

## SOURCE

PCDHA11 (Q-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of PCDHA11 of human origin.

## 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-103746 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PCDHA11 (Q-14) is recommended for detection of PCDHA11 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).

Suitable for use as control antibody for PCDHA11 siRNA (h): sc-106368, PCDHA11 shRNA Plasmid (h): sc-106368-SH and PCDHA11 shRNA (h) Lentiviral Particles: sc-106368-V.

Molecular Weight of PCDHA11: 103 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) 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.