

# PCDHGA5 (N-12): sc-109822

## 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. The protocadherin  $\gamma$  cluster consists of three subfamilies (A, B and C). As a member of the  $\gamma$  sub-family A, PCDHGA5 (protocadherin  $\gamma$  A5) is a 931 amino acid protein that is one of 22 proteins encoded by the protocadherin  $\gamma$  cluster. Typical of  $\gamma$  protocadherins, PCDHGA5 contains six cadherin motifs and is a type I transmembrane receptor expressed in the central nervous system. With localization to synapses, members of the  $\gamma$  cluster of protocadherins are essential for neuronal survival. There are two isoforms of PCDHGA5 that are produced as a result of alternative splicing events.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: PCDHGA5 (human) mapping to 5q31.3; Pcdhga5 (mouse) mapping to 18 B3.

## SOURCE

PCDHGA5 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of PCDHGA5 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-109822 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PCDHGA5 (N-12) is recommended for detection of PCDHGA5 of mouse, rat and 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 PCDHGA family members.

PCDHGA5 (N-12) is also recommended for detection of PCDHGA5 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for PCDHGA5 siRNA (h): sc-106838, Pcdhga5 siRNA (m): sc-152092, PCDHGA5 shRNA Plasmid (h): sc-106838-SH, Pcdhga5 shRNA Plasmid (m): sc-152092-SH, PCDHGA5 shRNA (h) Lentiviral Particles: sc-106838-V and Pcdhga5 shRNA (m) Lentiviral Particles: sc-152092-V.

Molecular Weight of PCDHGA5: 101 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.