SANTA CRUZ BIOTECHNOLOGY, INC.

PCDHGA9 (L-14): sc-109836

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 α, β and γ, all of which contain multiple tandemly arranged genes. PCDHGA9 (protocadherin γ-A9) is a 932 amino acid that is one of 22 proteins encoded by the protocadherin γ cluster. The protocadherein γ cluster consists of three subfamilies (A, B and C) and PCDHGA9 is a member of the γ subfamily A. PCDHGA9 is a type I transmembrane receptor containing six cadherin motifs and is expressed in the central nervous system where it localizes to synapses. Members of the γ cluster of protocadherins are essential for neuronal survival. There are two isoforms of PCDHGA9 that are produced as a result of alternative splicing events.

REFERENCES

1. Kohmura, N., et al. 1998. Diversity revealed by a novel family of cadherins expressed in neurons at a synaptic complex. Neuron 20: 1137-1151.
2. Wu, Q., et al. 2001. Comparative DNA sequence analysis of mouse and human protocadherin gene clusters. Genome Res. 11: 389-404.
3. Tasic, B., et al. 2002. Promoter choice determines splice site selection in protocadherin α and γ pre-mRNA splicing. Mol. Cell 10: 21-33.
4. Wang, X., et al. 2002. γ protocadherins are required for survival of spinal interneurons. Neuron 36: 843-854.
5. Kirov, G., et al. 2003. Variation in the protocadherin γ A gene cluster. Genomics 82: 433-440.
6. Zou, C., et al. 2007. Sequence analysis and expression mapping of the rat clustered protocadherin gene repertoires. Neuroscience 144: 579-603.
7. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 606296. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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CHROMOSOMAL LOCATION

Genetic locus: PCDHGA9 (human) mapping to 5q31.3.

SOURCE

PCDHGA9 (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of PCDHGA9 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109836 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PCDHGA9 (L-14) is recommended for detection of PCDHGA9 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 PCDHGA famnily members .

Suitable for use as control antibody for PCDHGA9 siRNA (h): sc-106759, PCDHGA9 shRNA Plasmid (h): sc-106759-SH and PCDHGA9 shRNA (h) Lentiviral Particles: sc-106759-V.

Molecular Weight of PCDHGA9: 102 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 or our catalog for detailed protocols and support products.