SANTA CRUZ BIOTECHNOLOGY, INC.

PCDHGA10 (A-12): sc-109798

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. PCDHGA10 (protocadherin γ-A10) is a 936 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 PCDHGA10 is a member of the γ subfamily A. PCDHGA10 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 PCDHGA10 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: 606297. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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CHROMOSOMAL LOCATION

Genetic locus: Pcdhga10 (mouse) mapping to 18 B3.

SOURCE

PCDHGA10 (A-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PCDHGA10 of mouse origin.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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-109798 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PCDHGA10 (A-12) is recommended for detection of PCDHGA10 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 PCDHGA family members.

Suitable for use as control antibody for Pcdhga10 siRNA (m): sc-152086, Pcdhga10 shRNA Plasmid (m): sc-152086-SH and Pcdhga10 shRNA (m) Lentiviral Particles: sc-152086-V.

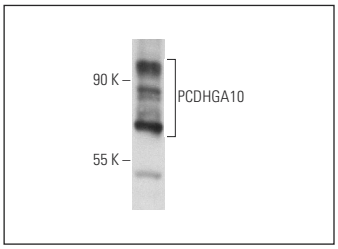
Molecular Weight of PCDHGA10: 101 kDa.

Positive Controls: mouse brain extract: sc-2253.

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



PCDHGA10 (A-12): sc-109798. Western blot analysis of PCDHGA10 expression in mouse brain tissue extract.

RESEARCH USE

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