SANTA CRUZ BIOTECHNOLOGY, INC.

PCDHGA8 (D-13): sc-109831

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 α, β and γ, all of which contain multiple tandemly arranged genes. The protocadherein γ cluster consists of three subfamilies (A, B and C). As a member of the γ subfamily A, PCDHGA8 (Protocadherin γ A8) is a 932 amino acid protein that is one of 22 proteins encoded by the protocadherin γ cluster. Typical of γ protocadherins, PCDHGA8 contains six cadherin motifs and is a type I transmembrane receptor expressed in the central nervous system. With localization to synapses, members of the γ cluster of protocadherins are essential for neuronal survival. There are two isoforms of PCDHGA8 that are produced as a result of alternative splicing events.

REFERENCES

1. Wu, Q., et al. 1999. A striking organization of a large family of human neural cadherin-like cell adhesion genes. Cell 97: 779-790.
2. Wu, Q., et al. 2001. Comparative DNA sequence analysis of mouse and human protocadherin gene clusters. Genome Res. 11: 389-404.
3. Wang, X., et al. 2002. γ protocadherins are required for survival of spinal interneurons. Neuron 36: 843-854.
4. Kirov, G., et al. 2003. Variation in the protocadherin γ A gene cluster. Genomics 82: 433-440.
5. Frank, M., et al. 2005. Differential expression of individual γ-protocadherins during mouse brain development. Mol. Cell. Neurosci. 29: 603-616.
6. Reiss, K., et al. 2006. Regulated ADAM10-dependent ectodomain shedding of γ-protocadherin C3 modulates cell-cell adhesion. J. Biol. Chem. 281: 21735-21744.
7. Bonn, S., et al. 2007. Combinatorial expression of α- and γ-protocadherins alters their presenilin-dependent processing. Mol. Cell. Biol. 27: 4121-4132.
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CHROMOSOMAL LOCATION

Genetic locus: PCDHGA8 (human) mapping to 5q31.3.

SOURCE

PCDHGA8 (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of PCDHGA8 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-109831 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PCDHGA8 (D-13) is recommended for detection of PCDHGA8 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 PCDHGA family members.

Suitable for use as control antibody for PCDHGA8 siRNA (h): sc-106828, PCDHGA8 shRNA Plasmid (h): sc-106828-SH and PCDHGA8 shRNA (h) Lentiviral Particles: sc-106828-V.

Molecular Weight of PCDHGA8: 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 or our catalog for detailed protocols and support products.