

PCDHB5 (N-14): sc-109783

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. Protocadherins are spatiotemporally regulated and are localized at synapses in the CNS. There are three protocadherin (PCDH) gene clusters, designated α , β and γ , all of which contain multiple tandemly arranged genes. Unlike the PCDHA and PCDHG genes, PCDB genes do not use constant region exons to produce mRNAs. Expressed by one of the sixteen genes within the β cluster, PCDHB5 (protocadherin β -5) is a 795 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.

REFERENCES

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3. Vanhalst, K., et al. 2001. The human and murine protocadherin- β one-exon gene families show high evolutionary conservation, despite the difference in gene number. *FEBS Lett.* 495: 120-125.
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7. Thalmeier, A., et al. 2008. Gene expression profiling of post-mortem orbitofrontal cortex in violent suicide victims. *Int. J. Neuropsychopharmacol.* 11: 217-228.
8. Dallosso, A.R., et al. 2009. Frequent long-range epigenetic silencing of protocadherin gene clusters on chromosome 5q31 in Wilms' tumor. *PLoS Genet.* 5: e1000745.
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CHROMOSOMAL LOCATION

Genetic locus: PCDHB5 (human) mapping to 5q31.3.

SOURCE

PCDHB5 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of PCDHB5 of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-109783 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PCDHB5 (N-14) is recommended for detection of PCDHB5 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 PCDHB family members.

PCDHB5 (N-14) is also recommended for detection of PCDHB5 in additional species, including bovine and porcine.

Suitable for use as control antibody for PCDHB5 siRNA (h): sc-91605, PCDHB5 shRNA Plasmid (h): sc-91605-SH and PCDHB5 shRNA (h) Lentiviral Particles: sc-91605-V.

Molecular Weight of PCDHB5: 86 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.

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.