

PCDHA7 (E-13): sc-103783

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. The protein products of PCDH- α genes interact with Integrin β 1 to promote cell adhesion and form oligomers with PCDH- γ proteins at specific membrane sites. PCDHA7 (protocadherin α -7) is a 937 amino acid single-pass transmembrane protein that contains 6 cadherin domains and functions as a potential calcium-dependent cell-adhesion protein, possibly playing a role in the creation and maintenance of neuronal connections. There are two isoforms of PCDHA7 that are produced as a result of alternative splicing events.

REFERENCES

1. Wu, Q. and Maniatis, T. 1999. A striking organization of a large family of human neural cadherin-like cell adhesion genes. *Cell* 97: 779-790.
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3. Hirayama, T. and Yagi, T. 2006. The role and expression of the protocadherin- α clusters in the CNS. *Curr. Opin. Neurobiol.* 16: 336-342.
4. Kaneko, R., et al. 2006. Allelic gene regulation of PCDH- α and PCDH- γ clusters involving both monoallelic and biallelic expression in single Purkinje cells. *J. Biol. Chem.* 281: 30551-30560.
5. Ribich, S., et al. 2006. Identification of long-range regulatory elements in the protocadherin- α gene cluster. *Proc. Natl. Acad. Sci. USA* 103: 19719-19724.
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CHROMOSOMAL LOCATION

Genetic locus: PCDHA7 (human) mapping to 5q31.3; Pcdha7 (mouse) mapping to 18 B2.

SOURCE

PCDHA7 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PCDHA7 of mouse origin.

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-103783 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

PCDHA7 (E-13) is recommended for detection of PCDHA7 of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

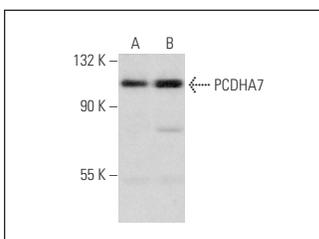
Suitable for use as control antibody for PCDHA7 siRNA (h): sc-106381, PCDHA7 siRNA (m): sc-106382, PCDHA7 shRNA Plasmid (h): sc-106381-SH, PCDHA7 shRNA Plasmid (m): sc-106382-SH, PCDHA7 shRNA (h) Lentiviral Particles: sc-106381-V and PCDHA7 shRNA (m) Lentiviral Particles: sc-106382-V.

Molecular Weight of PCDHA7: 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) 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



PCDHA7 (E-13): sc-103783. Western blot analysis of PCDHA7 expression in Y79 (A) and IMR-32 (B) whole cell lysates.

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.