SANTA CRUZ BIOTECHNOLOGY, INC.

PCDH21 (H-11): sc-514654

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. PCDH21 (protocadherin 21), also known as PRCAD, is an 859 amino acid single-pass membrane protein that localizes to the outer segments of photoreceptor cells and contains six cadherin domains. Existing as multiple alternatively spliced isoforms, PCDH21 functions as a calcium-dependent cell adhesion protein that is thought to be required for the structural integrity of photoreceptor cells and may be involved in the formation and maintenance of neuronal networks.

REFERENCES

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2. Yagi, T. and Takeichi, M. 2000. Cadherin superfamily genes: functions, genomic organization, and neurologic diversity. Genes Dev. 14: 1169-1180.
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4. Wu, Q. and Maniatis, T. 2000. Large exons encoding multiple ectodomains are a characteristic feature of protocadherin genes. Proc. Natl. Acad. Sci. USA 97: 3124-3129.
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7. Bolz, H., Ebermann, I. and Gal, A. 2005. Protocadherin-21 (PCDH21), a candidate gene for human retinal dystrophies. Mol. Vis. 11: 929-933.
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CHROMOSOMAL LOCATION

Genetic locus: CDHR1 (human) mapping to 10q23.1; Cdhr1 (mouse) mapping to 14 B.

SOURCE

PCDH21 (H-11) is a mouse monoclonal antibody raised against amino acids 329-527 mapping within an internal region of PCDH21 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PCDH21 (H-11) is recommended for detection of PCDH21 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for PCDH21 siRNA (h): sc-90632, Pcdh21 siRNA (m): sc-152061, PCDH21 shRNA Plasmid (h): sc-90632-SH, Pcdh21 shRNA Plasmid (m): sc-152061-SH, PCDH21 shRNA (h) Lentiviral Particles: sc-90632-V and Pcdh21 shRNA (m) Lentiviral Particles: sc-152061-V.

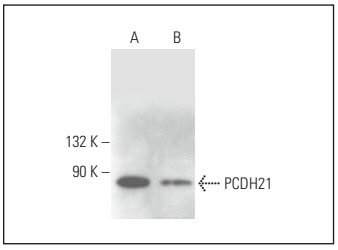
Molecular Weight of PCDH21: 94/82 kDa.

Positive Control: Y79 cell lysate: sc-2240 or JAR cell lysate: sc-2276.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PCDH21 (H-11): sc-514654. Western blot analysis of PCDH21 expression in Y79 (**A**) and JAR (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Yuan, Y., Peng, W., Liu, Y. and Xu, Z. 2017. Palmatine attenuates isoproterenol-induced pathological hypertrophy via selectively inhibiting HDAC2 in rats. Int. J. Immunopathol. Pharmacol. 30: 406-412.

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.