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 6 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


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 IgG2a 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).


Molecular Weight of PCDH21: 94/82 kDa.

Positive Control: Y79 cell lysate: sc-2240.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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 goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA

Positive Control: Y79 cell lysate: sc-2240.

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 website at www.scbt.com or our catalog for detailed protocols and support products.