**BACKGROUND**

Protocadherins are a subfamily of cadherins, a large group of related glycoproteins that mediate calcium-dependent cell-to-cell adhesion via a homophilic mechanism. Involved in a variety of functions, protocadherins help to regulate neural development and synapse formation. PCDH1 (protocadherin 1), also known as PC42 or PCDH42, is a 1,026 amino acid single-pass type I membrane protein that contains 7 cadherin domains and is a member of the protocadherin family. Localized to cell-cell and cell-matrix boundaries and expressed at high levels in brain and neuro-glial cells, PCDH1 is thought to be involved in cell adhesion and cell-cell interactions and may play a role in neuronal development. PCDH1 contains a C-terminal cytoplasmic region, an extracellular region and a transmembrane region, and is expressed as two isoforms due to alternative splicing events.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: PCDH1 (human) mapping to 5q31.3; Pcdh1 (mouse) mapping to 18 B3.

**SOURCE**

PCDH1 (B-11) is a mouse monoclonal antibody raised against amino acids 237-329 mapping near the N-terminus of PCDH1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG κ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PCDH1 (B-11) is available conjugated to agarose (sc-398263 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398263 HRP), 200 µg/ml, for WB, IHC (PE) and ELISA; to either phycoerythrin (sc-398263 PE), fluorescein (sc-398263 FITC), Alexa Fluor® 488 (sc-398263 AF488), Alexa Fluor® 546 (sc-398263 AF546), Alexa Fluor® 594 (sc-398263 AF594) or Alexa Fluor® 647 (sc-398263 AF647), 200 µg/ml, for WB (RGB), IF, IHC (PE) and FCM; and to either Alexa Fluor® 680 (sc-398263 AF680) or Alexa Fluor® 790 (sc-398263 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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PCDH1 (B-11) is recommended for detection of PCDH1 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 PCDH1 siRNA (h): sc-91705, Pcdh1 siRNA (m): sc-152054, PCDH1 shRNA Plasmid (h): sc-91705-SH, Pcdh1 shRNA Plasmid (m): sc-152054-SH, PCDH1 shRNA (h) Lentiviral Particles: sc-91705-V and Pcdh1 shRNA (m) Lentiviral Particles: sc-152054-V.

Molecular Weight of PCDH1: 111 kDa.

Positive Controls: PCDH1 (h): 293T Lysate: sc-115449, mouse brain extract: sc-2253 or rat brain extract: sc-2392.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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).

**DATA**

**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 for detailed protocols and support products.