# BR-cadherin (H-60): sc-366105



The Power to Question

#### **BACKGROUND**

The cadherins are a family of  $Ca^{2+}$ -dependent adhesion molecules that function to mediate cell-cell binding critical to the maintenance of tissue structure and morphogenesis. Cadherins each contain a large extracellular domain at the amino terminus, which is characterized by a series of five homologous repeats, the most distal of which is thought to be responsible for binding specificity. The relatively short carboxy terminal, intracellular domain interacts with a variety of cytoplasmic proteins, including catenin  $\beta$ , to regulate cadherin function. BR-cadherin (for brain-cadherin, also designated cadherin-12 or N-cadherin 2) is expressed specifically in neurons in the central nervous system and is thought to be involved in neuronal development.

#### **REFERENCES**

- 1. Hatta, M., Miyatani, S., Copeland, N.G., Gilbert, D.J., Jenkins, N.A. and Takeichi, M. 1991. Genomic organization and chromosomal mapping of the mouse P-cadherin gene. Nucleic Acids Res. 19: 4437-4441.
- Koch, P.J. and Franke, W.W. 1994. Desmosomal cadherins: another growing multigene family of adhesion molecules. Curr. Opin. Cell Biol. 6: 682-687.
- 3. Ranscht, B. 1994. Cadherins and catenins: interactions and functions in embryonic development. Curr. Opin. Cell Biol. 6: 740-746.
- Hinck, L., Nathke, I.S., Papkoff, J. and Nelson, W.J. 1994. Dynamics of cadherin/catenin complex formation: novel protein interactions and pathways of complex assembly. J. Cell Biol. 125: 1327-1340.
- 5. Ayalon, O., Sabanai, H., Lampugnani, M.G., Dejana, E. and Geiger, B. 1994. Spatial and temporal relationships between cadherins and PECAM-1 in cell-cell junctions of human endothelial cells. J. Cell Biol. 126: 247-258.
- 6. Takeichi, M. 1995. Morphogenetic roles of classic cadherins. Curr. Opin. Cell Biol. 7: 619-627.
- Selig, S., Lidov, H.G., Bruno, S.A., Segal, M.M., and Kunkel, L.M. 1997. Molecular characterization of Br-cadherin, a developmentally regulated, brain-specific cadherin. Proc. Natl. Acad. Sci. USA 94: 2398-2403.
- Takeichi, M. 1988. The cadherins: cell-cell adhesion molecules controlling animal morphogenesis. Development 102: 639-655.

## **CHROMOSOMAL LOCATION**

Genetic locus: CDH12 (human) mapping to 5p14.3; Cdh12 (mouse) mapping to 15 A2.

#### **SOURCE**

BR-cadherin (H-60) is a rabbit polyclonal antibody raised against amino acids 1-60 mapping at the N-terminus of BR-cadherin of human origin.

# **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

#### **STORAGE**

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

#### **APPLICATIONS**

BR-cadherin (H-60) is recommended for detection of BR-cadherin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

BR-cadherin (H-60) is also recommended for detection of BR-cadherin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for BR-cadherin siRNA (h): sc-43011, BR-cadherin siRNA (m): sc-43012, BR-cadherin shRNA Plasmid (h): sc-43011-SH, BR-cadherin shRNA Plasmid (m): sc-43012-SH, BR-cadherin shRNA (h) Lentiviral Particles: sc-43011-V and BR-cadherin shRNA (m) Lentiviral Particles: sc-43012-V.

Molecular Weight of BR-cadherin: 86 kDa.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.

**Santa Cruz Biotechnology, Inc.** 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**