SANTA CRUZ BIOTECHNOLOGY, INC.

OB-cadherin (N-12): sc-30314

BACKGROUND

The cadherins are a family of Ca^{2+}-dependent adhesion molecules that influence cell-cell binding and are critical to the maintenance of tissue structure and morphogenesis. OB-cadherin (osteoblast-cadherin, cadherin-11, OSF-4) has two forms, OB-cadherin-1 and OB-cadherin-2. OB-cadherin-2 has a truncated cytoplasmic domain, missing amino acids 694-796. Both OB-cadherins are expressed in osteoblastic cell lines with low expression seen in lungs, testis and brain.

REFERENCES

1. Takeichi, M. 1988. The cadherins: cell-cell adhesion molecules controlling animal morphogenesis. Development 102: 639-655.
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3. Koch, P.J. and Franke, W.W. 1994. Desmosomal cadherins: another growing multigene family of adhesion molecules. Curr. Opin. Cell Biol. 6: 682-687.
4. Ranscht, B. 1994. Cadherins and catenins: interactions and functions in embryonic development. Curr. Opin. Cell Biol. 6: 740-746.
5. 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.
6. 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.
7. Okazaki, M., Takeshita, S., Kawai, S., Kikuno, R., Tsujimura, A., Kudo, A. and Amann, E. 1994. Molecular cloning and characterization of OB-cadherin, a new member of cadherin family expressed in osteoblasts. J. Biol. Chem. 269: 12092-12098.
8. Takeichi, M. 1995. Morphogenetic roles of classic cadherins. Curr. Opin. Cell Biol. 7: 619-627.

CHROMOSOMAL LOCATION

Genetic locus: CDH11 (human) mapping to 16q21; Cdh11 (mouse) mapping to 8 D2.

SOURCE

OB-cadherin (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of OB-cadherin of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-30314 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OB-cadherin (N-12) is recommended for detection of OB-cadherin isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); may cross-react with human OB-cadherin-2.

OB-cadherin (N-12) is also recommended for detection of OB-cadherin isoforms 1 and 2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for OB-cadherin siRNA (h): sc-36113, OB-cadherin siRNA (m): sc-36114, OB-cadherin shRNA Plasmid (h): sc-36113-SH, OB-cadherin shRNA Plasmid (m): sc-36114-SH, OB-cadherin shRNA (h) Lentiviral Particles: sc-36113-V and OB-cadherin shRNA (m) Lentiviral Particles: sc-36114-V.

Molecular Weight of OB-cadherin: 115/85 kDa.

Positive Controls: Rat brain extract: sc-2392.

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) 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.

SELECT PRODUCT CITATIONS

1. Baudino, T.A., Baudino, T.A., McFadden, A., Fix, C., Hastings, J., Price, R. and Borg, T.K. 2008. Cell patterning: interaction of cardiac myocytes and fibroblasts in three-dimensional culture. Microsc. Microanal. 14: 117-125.

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 or our catalog for detailed protocols and support products.