

β-catenin (G-10): sc-376959

BACKGROUND

The catenins, α , β and γ , are proteins which bind to the highly conserved, intracellular cytoplasmic tail of E-cadherin. Together, the catenin/cadherin complexes play an important role mediating cellular adhesion. α -catenin was initially described as an E-cadherin associated protein, and since has been shown to associate with other members of the cadherin family, such as N-cadherin and P-cadherin. β -catenin associates with the cytoplasmic portion of E-cadherin, which is necessary for the function of E-cadherin as an adhesion molecule. β -catenin has also been found in complexes with the tumor suppressor protein APC. γ -catenin, also known as plakoglobin, binds with α -catenin and N-cadherin. It has been shown that the transmembrane phosphatase PTP μ associates with catenin/cadherin complexes and may regulate complex signaling.

CHROMOSOMAL LOCATION

Genetic locus: CTNNB1 (human) mapping to 3p22.1; Ctnnb1 (mouse) mapping to 9 F4.

SOURCE

β-catenin (G-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 755-781 at the C-terminus of β-catenin of human origin.

PRODUCT

Each vial contains 200 μg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-376959 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

β-catenin (G-10) is recommended for detection of β-catenin 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

β-catenin (G-10) is also recommended for detection of β-catenin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for β-catenin siRNA (h): sc-29209, β-catenin siRNA (m): sc-29210, β-catenin siRNA (r): sc-270011, β-catenin shRNA Plasmid (h): sc-29209-SH, β-catenin shRNA Plasmid (m): sc-29210-SH, β-catenin shRNA Plasmid (r): sc-270011-SH, β-catenin shRNA (h) Lentiviral Particles: sc-29209-V, β-catenin shRNA (m) Lentiviral Particles: sc-29210-V and β-catenin shRNA (r) Lentiviral Particles: sc-270011-V.

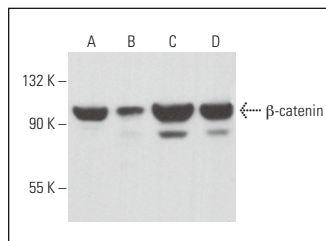
Molecular Weight of β-catenin: 92 kDa.

Positive Controls: PC-12 cell lysate: sc-2250, NIH/3T3 whole cell lysate: sc-2210 or C6 whole cell lysate: sc-364373.

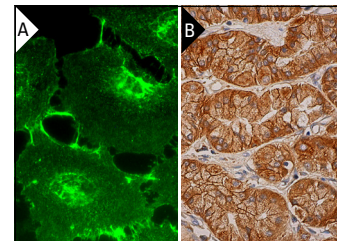
STORAGE

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

DATA



β-catenin (G-10): sc-376959. Western blot analysis of β-catenin expression in NIH/3T3 (A), C3H/10T1/2 (B), PC-12 (C) and C6 (D) whole cell lysates.



β-catenin (G-10): sc-376959. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing membrane and cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

1. Sweerus, K., et al. 2017. Claudin-18 deficiency is associated with airway epithelial barrier dysfunction and asthma. *J. Allergy Clin. Immunol.* 139: 72-81.e1.
2. Maharjan, R., et al. 2018. Comprehensive analysis of CTNNB1 in adrenocortical carcinomas: identification of novel mutations and correlation to survival. *Sci. Rep.* 8: 8610.
3. Xie, Y. and Shen, G. 2018. MicroRNA-139-5p elevates skeletal myogenic differentiation of human adult dental pulp stem cells through Wnt/β-catenin signaling pathway. *Exp. Ther. Med.* 16: 2835-2842.
4. Pankova, D., et al. 2019. RASSF1A controls tissue stiffness and cancer stem-like cells in lung adenocarcinoma. *EMBO J.* 38: e100532.

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.



See **β-catenin (E-5): sc-7963** for β-catenin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.