

β-catenin (B-9): sc-376841

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 (B-9) 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 μ g IgG₃ 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-376841 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

β -catenin (B-9) 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 μ g per 100-500 μ g 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 (B-9) 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.

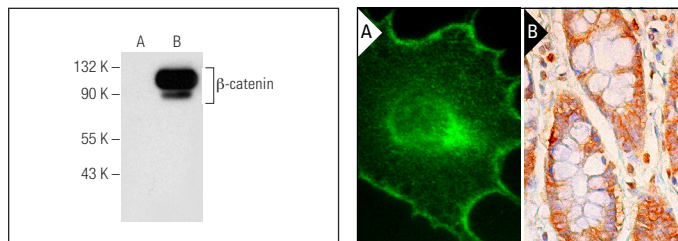
RESEARCH USE

For research use only, not for use in diagnostic procedures.

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 (B-9): sc-376841. Western blot analysis of β -catenin expression in non-transfected: sc-117752 (A) and human β -catenin transfected: sc-116622 (B) 293T whole cell lysates.

β -catenin (B-9): sc-376841. Immunofluorescence staining of formalin-fixed Hep G2 cells showing membrane and nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing membrane and cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Alao, J.P., et al. 2014. Selective inhibition of RET mediated cell proliferation *in vitro* by the kinase inhibitor SPP86. BMC Cancer 14: 853.
- Zhou, M.K., et al. 2015. MicroRNA-100 functions as a tumor suppressor by inhibiting Lgr5 expression in colon cancer cells. Mol. Med. Rep. 11: 2947-2952.
- He, F., et al. 2016. Glutaredoxin 3 promotes nasopharyngeal carcinoma growth and metastasis via EGFR/Akt pathway and independent of Ros. Oncotarget 7: 37000-37012.
- Luo, W., et al. 2017. Inactivation of HMGCL promotes proliferation and metastasis of nasopharyngeal carcinoma by suppressing oxidative stress. Sci. Rep. 7: 11954.
- Ding, L., et al. 2018. Upregulation of circ_001569 predicts poor prognosis and promotes cell proliferation in non-small cell lung cancer by regulating the Wnt/ β -catenin pathway. Oncol. Lett. 16: 453-458.
- Liu, L., et al. 2018. Tiam1 promotes thyroid carcinoma metastasis by modulating EMT via Wnt/ β -catenin signaling. Exp. Cell Res. 362: 532-540.
- Li, B., et al. 2020. Inactivation of 3-hydroxybutyrate dehydrogenase type 2 promotes proliferation and metastasis of nasopharyngeal carcinoma by iron retention. Br. J. Cancer 122: 102-110.
- Liu, M.C., et al. 2020. Distinct roles for Notch1 and Notch3 in human adipose-derived stem/stromal cell adipogenesis. Mol. Biol. Rep. 47: 8439-8450.
- Araldi, R.P., et al. 2020. LIMD2 regulates key steps of metastasis cascade in papillary thyroid cancer cells via MAPK crosstalk. Cells 9: 2522.

CONJUGATES

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.