SANTA CRUZ BIOTECHNOLOGY, INC.

β-catenin (C-1F12): sc-69763

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 PTPμ associates with catenin/cadherin complexes and may regulate complex signaling.

REFERENCES

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3. Breen, E., Steele, G., Jr. and Mercurio, A.M. 1995. Role of the E-cadherin/α-catenin complex in modulating cell-cell and cell-matrix adhesive properties of invasive colon carcinoma cells. Ann. Surg. Oncol. 2: 378-385.
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5. Ozawa, M., Nuruki, K., Toyoyama, H. and Ohi, Y. 1995. Cloning of an alternative form of plakoglobin (γ-catenin) lacking the fourth armadillo repeat. J. Biochem. 118: 836-840.
6. Sacco, P.A., McGranahan, T.M., Wheelock, M.J. and Johnson, K.R. 1995. Identification of plakoglobin domains required for association with N-cadherin and α-catenin. J. Biol. Chem. 270: 20201-20206.
7. Takayama, T., Shiozaki, H., Shibamoto, S., Oka, H., Kimura, Y., Tamura, S., Inoue, M., Monden, T., Ito, F. and Monden, M. 1996. β-catenin expression in human cancers. Am. J. Pathol. 148: 39-46.

CHROMOSOMAL LOCATION

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

SOURCE

β-catenin (C-1F12) is a mouse monoclonal antibody raised against the His-tagged recombinant C-terminal fragment of β-catenin of human origin.

PRODUCT

Each vial contains IgG_{2a} in 100 µl of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

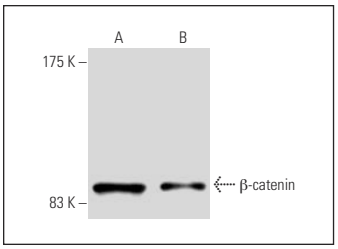
β-catenin (C-1F12) is recommended for detection of β-catenin of mouse, rat and human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunoprecipitation [1-2 µl per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:30-1:5000).

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

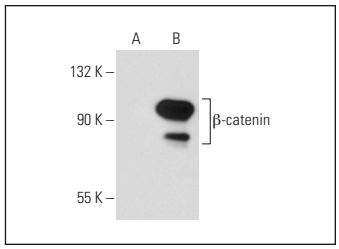
Molecular Weight of β-catenin: 92 kDa.

Positive Controls: β-catenin (h): 293T Lysate: sc-116622, HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

DATA



β-catenin (C-1F12): sc-69763. Western blot analysis of β-catenin expression in 293T (**A**) and NIH-3T3 (**B**) whole cell lysates.



β-catenin (C-1F12): sc-69763. 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.

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.

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.