SANTA CRUZ BIOTECHNOLOGY, INC.

β-catenin (10H8): sc-65480

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

1. Brady-Kalnay, S.M., et al. 1995. Receptor protein tyrosine phosphatase PTPm associates with cadherins and catenins *in vivo*. J. Cell Biol. 130: 977-986.
2. Ozawa, M., et al. 1995. Cloning of an alternative form of plakoglobin (γ-catenin) lacking the fourth armadillo repeat. J. Biochem. 118: 836-840.

CHROMOSOMAL LOCATION

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

SOURCE

β-catenin (10H8) is a mouse monoclonal antibody raised against amino acids 769-781 of β-catenin of human origin.

PRODUCT

Each vial contains 50 µg IgG_{2a} in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, PEG and sucrose.

APPLICATIONS

β-catenin (10H8) is recommended for detection of the C terminus of β-catenin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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, A-431 whole cell lysate: sc-2201 or MCF7 whole cell lysate: sc-2206.

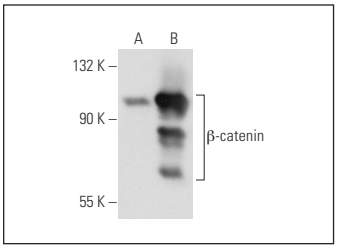
RESEARCH USE

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

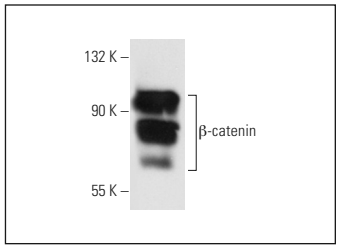
STORAGE

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

DATA



β-catenin (10H8): sc-65480. 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 (10H8): sc-65480. Western blot analysis of β-catenin expression in MCF7 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Huang, Y., et al. 2008. Midkine induces epithelial-mesenchymal transition through Notch2/Jak2-Stat3 signaling in human keratinocytes. Cell Cycle 7: 1613-1622.
2. Peng, J., et al. 2018. YAP and TAZ mediate steroid-induced alterations in the trabecular meshwork cytoskeleton in human trabecular meshwork cells. Int. J. Mol. Med. 41: 164-172.
3. Liu, X.F., et al. 2018. DAX1 promotes cervical cancer cell growth and tumorigenicity through activation of Wnt/β-catenin pathway via GSK3β. Cell Death Dis. 9: 339.
4. Wang, S., et al. 2018. The Wnt7b/β-catenin signaling pathway is involved in the protective action of calcitonin gene-related peptide on hyperoxia-induced lung injury in premature rats. Cell. Mol. Biol. Lett. 23: 4.
5. Dong, Q.F., et al. 2018. Inhibition of eIF4F complex loading inhibits the survival of malignant glioma. Oncol. Rep. 40: 2399-2407.
6. Aznar, N., et al. 2018. Convergence of Wnt, growth factor, and heterotrimeric G protein signals on the guanine nucleotide exchange factor Daple. Sci. Signal. 11: eaao4220.
7. Zhang, H., et al. 2019. Upregulation of miR-33b promotes endometriosis via inhibition of Wnt/β-catenin signaling and ZEB1 expression. Mol. Med. Rep. 19: 2144-2152.
8. Hu, Y., et al. 2019. Fasudil may induce the differentiation of bone marrow mesenchymal stem cells into neuron-like cells via the Wnt/β-catenin pathway. Mol. Med. Rep. 19: 3095-3104.
9. Zhou, A., et al. 2019. Inhibitory effects of miR-26b-5p on thyroid cancer. Mol. Med. Rep. 20: 1196-1202.

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.