SANTA CRUZ BIOTECHNOLOGY, INC.

β-catenin (9G2): sc-65486

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, is a protein that 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. Edelman, G.M., et al. 1991. Cell adhesion molecules: implications for a molecular histology. Annu. Rev. Biochem. 60: 155-190.
2. Takeichi, M. 1991. Cadherin cell adhesion receptors as a morphogenetic regulator. Science 251: 1451-1455.
3. Tsukita, S., et al. 1993. Submembranous junctional plaque proteins include potential tumor suppressor molecules. J. Cell Biol. 123: 1049-1053.
4. Johnson, K.R., et al. 1993. P- and E-cadherin are in separate complexes in cells expressing both cadherins. Exp. Cell. Res. 207: 252-260.
5. Reynolds, A.B., et al. 1994. Identification of a new catenin: the tyrosine kinase substrate p120cas associates with E-cadherin complexes. Mol. Cell. Biol. 14: 8333-8342.
6. Knudsen, K.A., et al. 1995. Interaction of α-actinin with the cadherin/catenin cell-cell adhesion complex via α-catenin. J. Cell Biol. 130: 67-77.
7. Breen, E., et al. 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.

CHROMOSOMAL LOCATION

Genetic locus: CTNNB1 (human) mapping to 3p21; Ctnnb1 (mouse) mapping to 9 F4.

SOURCE

β-catenin (9G2) is a mouse monoclonal antibody raised against full length β-catenin of human origin.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

PRODUCT

Each vial contains 50 µg IgG_1 in 500 µl of PBS with < 0.1% sodium azide, 1% gelatin, PEG and sucrose.

APPLICATIONS

β-catenin (9G2) is recommended for detection 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)], 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).

Suitable for use as control antibody for β-catenin siRNA (h): sc-29209, β-catenin siRNA (h2): sc-44252 and β-catenin siRNA (m): sc-29210.

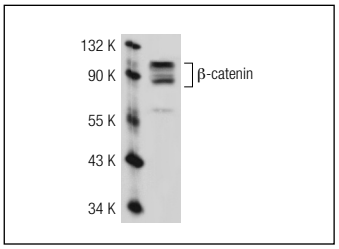
Molecular Weight of β-catenin: 92 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or MCF7 whole cell lysate: sc-2206.

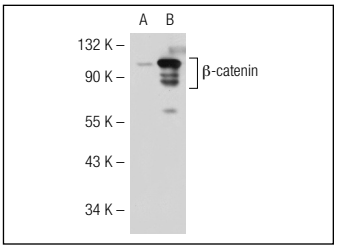
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



β-catenin (9G2): sc-65486. Western blot analysis of β-catenin expression in MCF7 whole cell lysate.



β-catenin (9G2): sc-65486. 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.

SELECT PRODUCT CITATIONS

1. Dai, B., et al. 2010. Rosiglitazone attenuates development of polycystic kidney disease and prolongs survival in Han:SPRD rats. Clin. Sci. 119: 323-333.

RESEARCH USE

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