SANTA CRUZ BIOTECHNOLOGY, INC.

# β-catenin (h): 293T Lysate: sc-116622

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


1. 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.
2. Brady-Kalnay, S.M., et al. 1995. Receptor protein tyrosine phosphatase PTPμ associates with cadherins and catenins *in vivo*. J. Cell Biol. 130: 977-986.
3. 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.
4. Pierceall, W.E., et al. 1995. Frequent alterations in E-cadherin and α- and β-catenin expression in human breast cancer cell lines. Oncogene 11: 1319-1326.
5. Ozawa, M., et al. 1995. Cloning of an alternative form of plakoglobin (γ-catenin) lacking the fourth armadillo repeat. J. Biochem. 118: 836-840.
6. Sacco, P.A., et al. 1995. Identification of plakoglobin domains required for association with N-cadherin and α-catenin. J. Biol. Chem. 270: 20201-20206.
7. Takayama, T., et al. 1996. β-catenin expression in human cancers. Am. J. Pathol. 148: 39-46.
8. LocusLink Report (LocusID: 1499). http://www.ncbi.nlm.nih.gov/LocusLink/


## CHROMOSOMAL LOCATION

Genetic locus: CTNNB1 (human) mapping to 3p22.1.

## PRODUCT

β-catenin (h): 293T Lysate represents a lysate of human β-catenin transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## RESEARCH USE

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

## APPLICATIONS

β-catenin (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive β-catenin antibodies. Recommended use: 10-20 µl per lane.

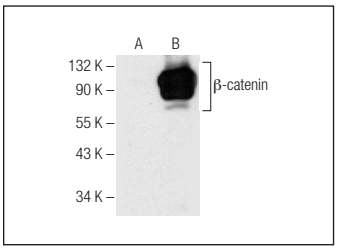
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

β-catenin (H-2): sc-376805 is recommended as a positive control antibody for Western Blot analysis of enhanced human β-catenin expression in β-catenin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

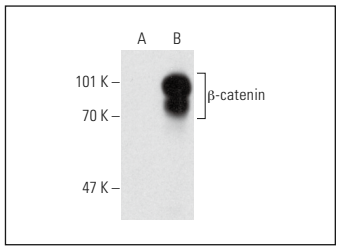
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA




β-catenin (H-2): sc-376805. 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 (E-5): sc-7963. 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.

## PROTOCOLS

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