

β-catenin (P-20): sc-31000

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.

REFERENCES

- 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.
- 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.
- 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.
- Ozawa, M., et al. 1995. Cloning of an alternative form of plakoglobin (γ -catenin) lacking the fourth armadillo repeat. *J. Biochem.* 118: 836-840.
- 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.

CHROMOSOMAL LOCATION

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

SOURCE

β -catenin (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of β -catenin of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-31000 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

β -catenin (P-20) 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 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) 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, β -catenin siRNA (m): sc-29210, β -catenin siRNA (m2): sc-44253 β -catenin shRNA Plasmid (h): sc-29209-SH, β -catenin shRNA Plasmid (h2): sc-44252-SH, β -catenin shRNA Plasmid (m): sc-29210-SH, β -catenin shRNA Plasmid (m2): sc-44253-SH β -catenin shRNA (h) Lentiviral Particles: sc-29209-V, β -catenin shRNA (h2) Lentiviral Particles: sc-44252-V, β -catenin shRNA (m) Lentiviral Particles: sc-29210-V, and β -catenin shRNA (m2) Lentiviral Particles: sc-44253-V.

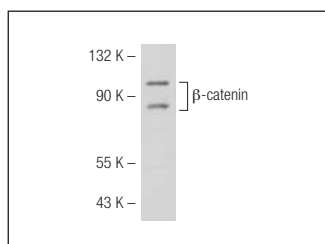
Molecular Weight of β -catenin: 92 kDa.

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

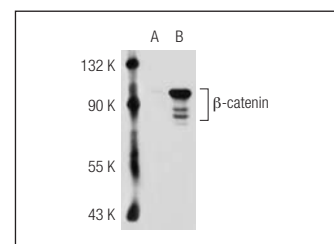
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



β -catenin (P-20): sc-31000. Western blot analysis of β -catenin expression in MCF7 whole cell lysate.



β -catenin (P-20): sc-31000. 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 or our catalog for detailed protocols and support products.