

β-catenin (C-18): sc-1496

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.

CHROMOSOMAL LOCATION

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

SOURCE

β -catenin (C-18) is available as either goat (sc-1496) or rabbit (sc-1496-R) polyclonal affinity purified antibody raised against a peptide mapping at 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-1496 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-1496 AC, 500 μ g/0.25 ml agarose in 1 ml.

APPLICATIONS

β -catenin (C-18) is recommended for detection of β -catenin of mouse, rat, human, zebrafish and *Xenopus* 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 and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

β -catenin (C-18) is also recommended for detection of β -catenin in additional species, including equine, canine, bovine, porcine and avian.

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.

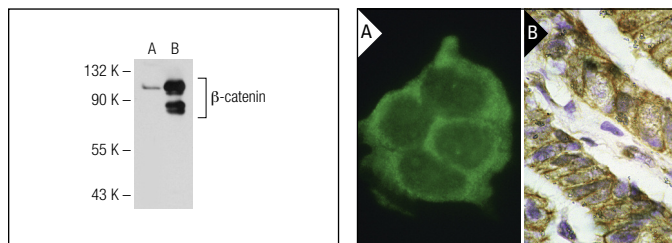
Molecular Weight of β -catenin: 92 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or β -catenin (h): 293T Lysate: sc-116622.

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 (C-18): sc-1496. 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 (C-18): sc-1496. Immunofluorescence staining of methanol-fixed A-431 cells showing membrane localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue. Note membrane and cytoskeletal staining of ductal epithelia (B).

SELECT PRODUCT CITATIONS

- Lefebvre, A., et al. 1998. Activation of the peoxisome proliferator-activated receptor γ promotes the development of colon tumors in C57BL/6J-APC^{Min/+} mice. *Nat. Med.* 4: 1053-1057.
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- Erdmann, K.S., et al. 2000. The adenomatous polyposis coli-protein (APC) interacts with the protein tyrosine phosphatase PTP-BL via an alternatively spliced PDZ domain. *Oncogene* 19: 3894 - 3901.
- Bardeesy, N., et al. 2001. Dual inactivation of RB and p53 pathways in RAS-induced melanomas. *Mol. Cell. Biol.* 21: 2144-2153.
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- Schroeder, J.A., et al. 2003. MUC1 alters β -catenin-dependent tumor formation and promotes cellular invasion. *Oncogene* 22: 1324-1332.
- Takemaru, K., et al. 2003. Chibby, a nuclear β -catenin-associated antagonist of the Wnt/Wingless pathway. *Nature* 422: 905-909.
- Tinsley, J.H., et al. 2005. PKC-dependent, burn-induced adherens junction reorganization and barrier dysfunction in pulmonary microvascular endothelial cells. *Am. J. Physiol. Lung Cell Mol. Physiol.* 289: L217-L233.
- Hwang, S.I., et al. 2007. Direct cancer tissue proteomics: a method to identify candidate cancer biomarkers from formalin-fixed paraffin-embedded archival tissues. *Oncogene* 26: 65-76.

RESEARCH USE

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