

β-catenin (H-1): MDB133240

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 3p22.1; Ctnnb1 (mouse) mapping to 9 F4.

SOURCE

β-catenin (H-1) is a mouse monoclonal antibody raised against amino acids 680-781 mapping at the C-terminus of β-catenin of human origin.

PRODUCT

Each vial contains 200 μg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

β-catenin (H-1) is available conjugated to agarose (sc-133240 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-133240 HRP), 200 μg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-133240 PE), fluorescein (sc-133240 FITC), Alexa Fluor[®] 488 (sc-133240 AF488), Alexa Fluor[®] 546 (sc-133240 AF546), Alexa Fluor[®] 594 (sc-133240 AF594) or Alexa Fluor[®] 647 (sc-133240 AF647), 200 μg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-133240 AF680) or Alexa Fluor[®] 790 (sc-133240 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

β-catenin (H-1) is recommended for detection of β-catenin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). β-catenin (H-1) is also recommended for detection of β-catenin in additional species, including equine, canine, bovine and porcine.

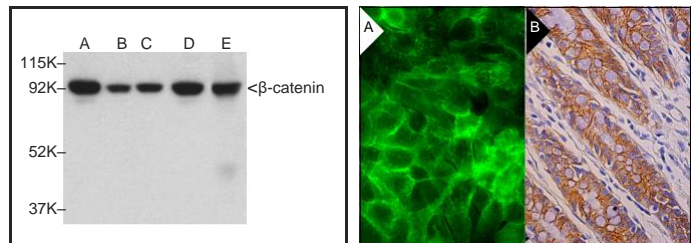
Suitable for use as control antibody for β-catenin siRNA (h): sc-29209, β-catenin siRNA (m): sc-29210, β-catenin siRNA (r): sc-270011, β-catenin shRNA Plasmid (h): sc-29209-SH, β-catenin shRNA Plasmid (m): sc-29210-SH, β-catenin shRNA Plasmid (r): sc-270011-SH, β-catenin shRNA (h) Lentiviral Particles: sc-29209-V, β-catenin shRNA (m) Lentiviral Particles: sc-29210-V and β-catenin shRNA (r) Lentiviral Particles: sc-270011-V.

Molecular Weight of β-catenin: 92 kDa.

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 (H-1): sc-133240. Western blot analysis of β-catenin expression in A-431 (A), HeLa (B), SH-SY5Y (C) and C6 (D) whole cell lysates and rat brain tissue extract (E). Detection reagent used: m-IgG1 BP-HRP: sc-525408. Immunofluorescence staining of formalin fixed, paraffin-embedded human rectum tissue showing membrane and cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Jaiswal, A.S. and Narayan, S. 2004. Zinc stabilizes adenomatous polyposis coli (APC) protein levels and induces cell cycle arrest in colon cancer cells. *J. Cell. Biochem.* 93: 345-357.
- Zhang, W.J., et al. 2013. The expression and functional characterization associated with cell apoptosis and proteomic analysis of the novel gene MLAA-34 in U937 cells. *Oncol. Rep.* 29: 491-506.
- Du, H., et al. 2017. Salinomycin inhibits canine mammary carcinoma *in vitro* by targeting cancer stem cells. *Oncol. Lett.* 14: 427-432.
- Zhou, B., et al. 2018. 5-fluorouracil may enrich cancer stem cells in canine mammary tumor cells *in vitro*. *Oncol. Lett.* 15: 7987-7992.
- Moparthi, L., et al. 2019. Wnt activator FOXB2 drives the neuroendocrine differentiation of prostate cancer. *Proc. Natl. Acad. Sci. USA* 116: 22189-22195.
- Mehdi, S., et al. 2020. LY75 suppression in mesenchymal epithelial ovarian cancer cells generates a stable hybrid EOC cellular phenotype, associated with enhanced tumor initiation, spreading and resistance to treatment in orthotopic xenograft mouse model. *Int. J. Mol. Sci.* 21: 4992.
- Zhou, S., et al. 2021. Pyrvinium treatment confers hepatic metabolic benefits via β-catenin downregulation and AMPK activation. *Pharmaceutics* 13: 330.
- Cicek, E., et al. 2022. EGF-SNX3-EGFR axis drives tumor progression and metastasis in triple-negative breast cancers. *Oncogene* 41: 220-232.

RESEARCH USE

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

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