

γ -catenin (H-80): sc-7900

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: JUP (human) mapping to 17q21.2; Jup (mouse) mapping to 11 D.

SOURCE

γ -catenin (H-80) is a rabbit polyclonal antibody raised against amino acids 30-109 mapping near the N-terminus of γ -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.

APPLICATIONS

γ -catenin (H-80) is recommended for detection of γ -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), 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).

γ -catenin (H-80) is also recommended for detection of γ -catenin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for γ -catenin siRNA (h): sc-29324, γ -catenin siRNA (m): sc-29932, γ -catenin shRNA Plasmid (h): sc-29324-SH, γ -catenin shRNA Plasmid (m): sc-29932-SH, γ -catenin shRNA (h) Lentiviral Particles: sc-29324-V and γ -catenin shRNA (m) Lentiviral Particles: sc-29932-V.

Molecular Weight of γ -catenin: 80-87 kDa.

Positive Controls: γ -catenin (h): 293T Lysate: sc-159343, HeLa whole cell lysate: sc-2200 or A-431 whole cell lysate: sc-2201.

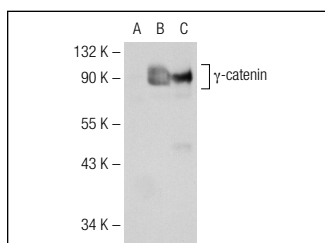
STORAGE

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

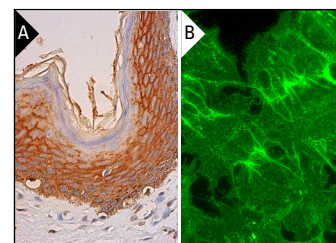
RESEARCH USE

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

DATA



γ -catenin (H-80): sc-7900. Western blot analysis of γ -catenin expression in non-transfected 293T: sc-117752 (A), human γ -catenin transfected 293T: sc-159343 (B) and A-431 (C) whole cell lysates.



γ -catenin (H-80): sc-7900. Immunoperoxidase staining of formalin fixed, paraffin-embedded human vulva skin tissue showing membrane and cytoplasmic staining of epidermal cells (A). Immunofluorescence staining of formalin-fixed Hep G2 cells showing membrane localization (B).

SELECT PRODUCT CITATIONS

- Hatsell, S., et al. 2003. Plakoglobin is O-glycosylated close to the N-terminal destruction box. *J. Biol. Chem.* 278: 37745-37752.
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- Wang, C.Q., et al. 2007. Coxsackie and adenovirus receptor (CAR) is a product of Sertoli and germ cells in rat testes which is localized at the Sertoli-Sertoli and Sertoli-germ cell interface. *Exp. Cell Res.* 313: 1373-1392.
- Tu, C.L., et al. 2008. Inactivation of the calcium sensing receptor inhibits E-cadherin-mediated cell-cell adhesion and calcium-induced differentiation in human epidermal keratinocytes. *J. Biol. Chem.* 283: 3519-3528.
- Li, M.W., et al. 2009. Connexin 43 and plakophilin-2 as a protein complex that regulates blood-testis barrier dynamics. *Proc. Natl. Acad. Sci. USA* 106: 10213-10218.
- Thomas, N.M., et al. 2011. Sex differences in expression and subcellular localization of heart rhythm determinant proteins. *Biochem. Biophys. Res. Commun.* 406: 117-122.
- Gu, T.T., et al. 2012. Cytoplasmic NANOG-positive stromal cells promote human cervical cancer progression. *Am. J. Pathol.* 181: 652-661.
- Xiao, X., et al. 2012. Intercellular adhesion molecule-1 is a regulator of blood-testis barrier function. *J. Cell Sci.* 125: 5677-5689.

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Try γ -catenin (A-6): sc-514115 or γ -catenin (H-1): sc-8415, our highly recommended monoclonal alternatives to γ -catenin (H-80).