

# $\gamma$ -catenin (K-20): sc-30997

## BACKGROUND

The catenins,  $\alpha$ ,  $\beta$  and  $\gamma$ , are proteins which bind to the highly conserved, intracellular cytoplasmic tail of E-cadherin. Together, the catenin/cadherin complexes play an important role in mediating cellular adhesion.  $\alpha$ -catenin was initially described as an E-cadherin-associated protein, and has since been shown to associate with other members of the cadherin family, such as N-cadherin and P-cadherin.  $\beta$ -catenin associates with the cytoplasmic portion of E-cadherin, which is necessary for the function of E-cadherin as an adhesion molecule.  $\beta$ -catenin has also been found in complexes with the tumor suppressor protein APC.  $\gamma$ -catenin, also known as plakoglobin, binds with  $\alpha$ -catenin and N-cadherin. It has been shown that the transmembrane phosphatase PTP $\mu$  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

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

## PRODUCT

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

Blocking peptide available for competition studies, sc-30997 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

$\gamma$ -catenin (K-20) is recommended for detection of  $\gamma$ -catenin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

$\gamma$ -catenin (K-20) is also recommended for detection of  $\gamma$ -catenin in additional species, including equine, canine, bovine, porcine and avian.

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

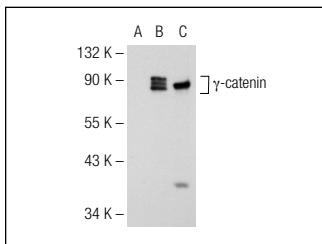
Molecular Weight of  $\gamma$ -catenin: 80-87 kDa.

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

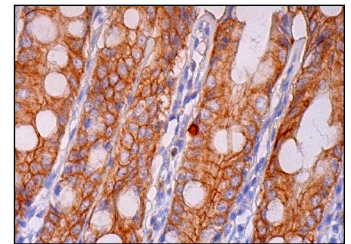
## RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



$\gamma$ -catenin (K-20): sc-30997. Western blot analysis of  $\gamma$ -catenin expression in non-transfected 293T: sc-117752 (A), human  $\gamma$ -catenin transfected 293T: sc-159343 (B) and A-431 (C) whole cell lysates.



$\gamma$ -catenin (K-20): sc-30997. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing membrane and cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS

- Rodova, M., et al. 2004. Regulation of the rapsyn promoter by Kaiso and  $\delta$ -catenin. *Mol. Cell. Biol.* 24: 7188-7196.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try  $\gamma$ -catenin (A-6): sc-514115 or  $\gamma$ -catenin (H-1): sc-8415, our highly recommended monoclonal alternatives to  $\gamma$ -catenin (K-20).