

γ-catenin (D-12): sc-398183

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 (D-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 716-743 C-terminus of γ -catenin of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398183 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

γ -catenin (D-12) is recommended for detection of γ -catenin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

γ -catenin (D-12) is also recommended for detection of γ -catenin in additional species, including canine.

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.

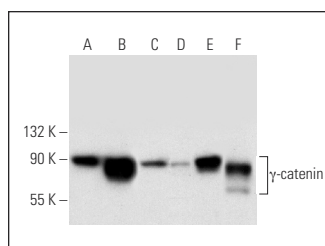
Molecular Weight of γ -catenin: 80-87 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, MCF7 whole cell lysate: sc-2206 or SK-BR-3 cell lysate: sc-2218.

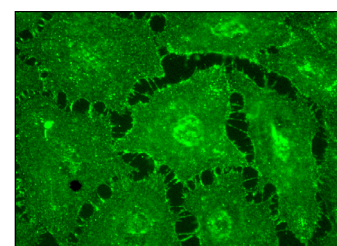
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



γ -catenin (D-12): sc-398183. Western blot analysis of γ -catenin expression in HeLa (A), A-431 (B), HT-1080 (C), H4 (D), MCF7 (E) and SK-BR-3 (F) whole cell lysates.



γ -catenin (D-12): sc-398183. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Artegiani, B., et al. 2019. Probing the tumor suppressor function of BAP1 in CRISPR-engineered human liver organoids. *Cell Stem Cell* 24: 927-943.e6.

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 for detailed protocols and support products.