p-β-catenin (BC-22): sc-57535

**BACKGROUND**

The catenins, α, β, and γ, are proteins that bind to the highly conserved, intracellular cytoplasmic tail of E-cadherin. Together, the catenin/cadherin complexes play critical roles in mediating cellular adhesion. 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 also forms complexes with the tumor suppressor protein APC. Amino acid alterations at residues around Ser 33, one of the targets for phosphorylation of glycogen synthase kinase-3β, results in accumulation of the β-catenin protein in the cytoplasm and nucleus. Pin1 is a novel regulator of β-catenin signaling that directly binds a phosphorylated Ser-Pro motif next to the APC-binding site. Inactivation of Pin1 results in upregulation of β-catenin in tumors such as breast cancer.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: CTNNB1 (human) mapping to 3p22.1; Ctnnb1 (mouse) mapping to 9 F4.

**SOURCE**

p-β-catenin (BC-22) is a mouse monoclonal antibody raised against a synthetic peptide corresponding to amino acids 32-45 of β-catenin of human origin.

**PRODUCT**

Each vial contains 100 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

p-β-catenin (BC-22) is recommended for detection of Ser 33/37 phosphorylated β-catenin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); not recommended for detection of the unphosphorylated or the Ser 33 phosphorylated protein or phosphorylated plakoglobin (despite the high homology in the phosphorylation site with β-catenin).


Positive Controls: β-catenin (h): 293T Lysate: sc-116622, calyculin + SH-SY5Y whole cell lysate or SH-SY5Y cell lysate: sc-3812.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:100000). Cruz Marker® Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Lambda Phosphatase: sc-200312A and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agrose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Hard-set Mounting Medium: sc-24941 or UltraCruz® Mounting Medium: sc-359850.

**DATA**

**SELECT PRODUCT CITATIONS**


**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.