**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 in β-catenin, inhibiting the interaction with APC, and increasing β-catenin translocation into the nucleus. Thus, Pin1 overexpression may contribute to the 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/Ser 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).


Molecular Weight of p-β-catenin: 92 kDa.

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

**STORAGE**

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

**DATA**

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<tr>
<th><strong>p-β-catenin (BC-22): sc-57535</strong></th>
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<tbody>
<tr>
<td>Western blot analysis of β-catenin phosphorylation in OVCAR-3 + pervanadate (A), SH-SY5Y + calyculin (B) and 293T + calyculin (C) whole cell lysates.</td>
<td>Western blot analysis of β-catenin phosphorylation in non-transfected sc-117752 (A) and human β-catenin transfected: sc-116022 (B) whole cell lysates.</td>
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**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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