

Affinity Purified Rabbit Anti-Phospho- β -Catenin (S33/S37) Certificate of Analysis

ORDERING INFORMATION

Catalog Number: PPS020

Lot Numbers: 1290672
1325242

Size: 100 μ L (sufficient for 10 mini-blots)

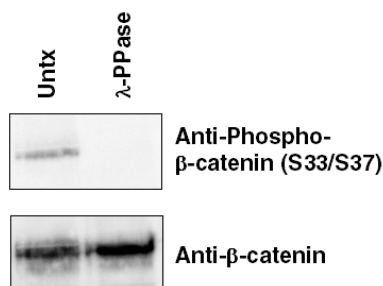
Storage: $\leq -20^{\circ}$ C

Specificity: Human, mouse, rat, *Xenopus*
~83 kDa β -catenin protein
phosphorylated at S33/S37

Immunogen: Phosphopeptide corresponding
to amino acid residues
surrounding the phospho-
S33/S37 of human β -catenin

Ig Type: rabbit IgG

Applications: Western blot



Cellular extracts of exponentially growing HEK-293 cells were made, and samples were left untreated (Untx) or treated with λ -phosphatase (λ -PPase). Proteins were resolved by SDS-PAGE, transferred to a PVDF membrane, and immunoblotted with anti-phospho- β -catenin (S33/S37) (*top panel*). The membrane was stripped and reprobed with anti- β -catenin (R&D Systems, Catalog # AF1329) (*lower panel*).

Description

Beta-catenin is a cytosolic, 88 kDa, 781 amino acid member of the β -catenin family of proteins. It has essentially two functions. One, it serves as a link between cytoskeleton actin and transmembrane cadherin(s). It is believed to contribute to tight cell-to-cell adhesion. Two, it can enter the nucleus and interact with the TCF/LEF family of transcription factors, initiating gene expression. Normally, β -catenin transcriptional activity is suppressed by a Ser/Thr kinase termed GSK3 β . GSK3 β is constitutively active and phosphorylates β -catenin at multiple sites, including S33 and S37.

Phosphorylation of β -catenin targets the molecule for degradation via a ubiquitination-mediated pathway. GSK3 β activity can be blocked by upstream signaling events such as Wnt-Frizzled interaction. This inhibits GSK3 β , allowing unphosphorylated β -catenin to enter the nucleus and initiate gene activation.

Preparation

Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.

Formulation

100 μ L in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 μ g/mL BSA and 50% glycerol.

Storage

For long-term storage, $\leq -20^{\circ}$ C is recommended. Product is stable at $\leq -20^{\circ}$ C for at least 1 year.

Specificity

Specific for the ~83 kDa β -catenin protein phosphorylated at S33/S37 in Western blots of human embryonic kidney cells. This antibody recognizes human and rat forms of β -catenin. The amino acid sequence used as the antigen is identical in mouse, rat and *Xenopus*.

Applications

Western blot - 1:1000

Optimal dilutions should be determined by each laboratory for each application.

References

1. www.ana.ed.ac.uk/rnusse/pathway/bcatmut.html
2. Muller, T. *et al.* (1999) J. Biol. Chem. **274**:10173.
3. van Noort, M. *et al.* (2002) J. Biol. Chem. **277**:17901.
4. Park, C.S. *et al.* (2004) J. Biol. Chem. **279**:19592.

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