

β -Catenin (Tyr-142), phospho-specific [Conserved site]

Cat. # CP1081

Host Rabbit Polyclonal

Size 100 μ l

Background:

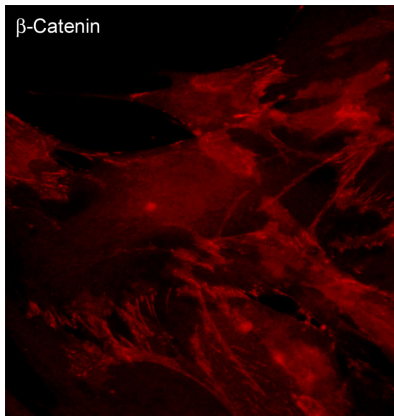
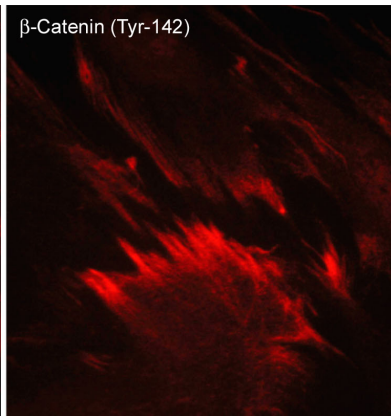
β -Catenin is a 92 kDa protein that binds to the cytoplasmic tail of E-Cadherin. The cadherins, transmembrane adhesion molecules, are found with catenins at adherens junctions. Deletions in the cytoplasmic domain of E-Cadherin eliminate catenin binding and result in a loss of cell adhesion. Tyrosine phosphorylation of β -Catenin can regulate its interaction with critical components of adherens junctions. Both Fer and Fyn kinases phosphorylate tyrosine 142 *in vitro*. Overexpression of these kinases in epithelial cells disrupts interactions between α - and β -Catenins. The phosphorylation of tyrosine 142 may act as a switch from the transcriptional to the adhesive role of β -Catenin. Src family kinases can also phosphorylate tyrosine 654 in the C-terminal armadillo repeat of β -Catenin. This phosphorylation regulates β -Catenin binding to E-cadherin. Thus, site-specific tyrosine phosphorylation of β -Catenin may regulate specific protein-protein interactions leading to changes in cell adhesion.

References

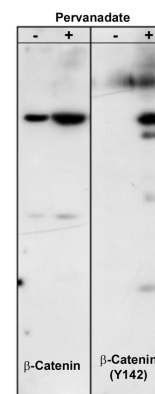
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Ozawa, M. et al. (1990) Proc. Natl. Acad. Sci. USA 87:4246.

Piedra, J. et al. (2003) Mol. Cell. Biol. 23(7):2287-2297.

 β -Catenin β -Catenin (Tyr-142)

Immunocytochemical labeling of phosphorylated β -Catenin in paraformaldehyde-fixed and NP-40-permeabilized rabbit spleen fibroblasts. The cells were labeled with mouse monoclonal β -Catenin and rabbit polyclonal β -Catenin (Tyr-142) antibodies, then the antibodies were detected using appropriate secondary antibodies conjugated to Cy3.



Western blot analysis of Hct116 src transformed cells (20 μ g/lane) serum starved overnight or treated with pervanadate (1 mM) for 30 min. The blot was probed with anti- β -Catenin or anti- β -Catenin (Tyr-142).

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Cat. # CP1081
Host Rabbit Polyclonal
Size 100 μ l

Immunogen:

Phospho- β -Catenin (Tyr-142) synthetic peptide (coupled to KLH) corresponding to amino acid residues around tyrosine 142 of human β -Catenin. This peptide sequence has one amino acid difference from a sequence around tyrosine 133 of human γ -Catenin. These human sequences are highly conserved in rat and mouse β - and γ -Catenins.

Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100 μ l phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C . Do not aliquot. Stable for 1 year.

Applications:

WB 1:500
ELISA 1:2000
ICC 1:100

End user should determine optimal dilution for their particular applications and experiments.
Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1hour at room temperature.

Specificity:

This antibody was cross-adsorbed to phospho-tyrosine coupled to agarose before affinity purification using phospho- β -Catenin (Tyr-142) peptide (without carrier). The antibody detects a 92kDa* protein corresponding to the molecular mass of β -Catenin on SDS-PAGE immunoblots of Hct116 src-transformed cells treated with pervanadate, but not in control cells. Similar results were observed in pervanadate-treated A431 and human endothelial cells.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

Related Products:

CP1191 β -Catenin (Tyr-86), phospho-specific Rabbit Polyclonal
CP1061 β -Catenin (N-terminal) Rabbit Polyclonal
CP1201 β -Catenin / γ -Catenin (a.a. 649-661) Rabbit Polyclonal
CM1181 β -Catenin Mouse Monoclonal
CK6120 β -Catenin Phospho-Regulation Antibody Sampler Kit
CK6230 δ 1-Catenin Phospho-Regulation Antibody Sampler Kit

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