

Anti- β -Catenin (Tyr-142), phospho-specific

[γ -Catenin (Tyr-133)]

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:

Brembeck, F.H. et al. (2004) Genes Dev. 18(18):2225-2230.
Ozawa, M. et al. (1990) Proc. Natl. Acad. Sci. USA 87:4246.
Piedra, J. et al. (2003) Mol. Cell. Biol. 23(7):2287-2297.

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 -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:

Western blotting 1:500 dilution[†]
ELISA 1:2000 dilution

End user should determine optimal dilution for their particular applications and experiments.

[†]Membrane was incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

Specificity:

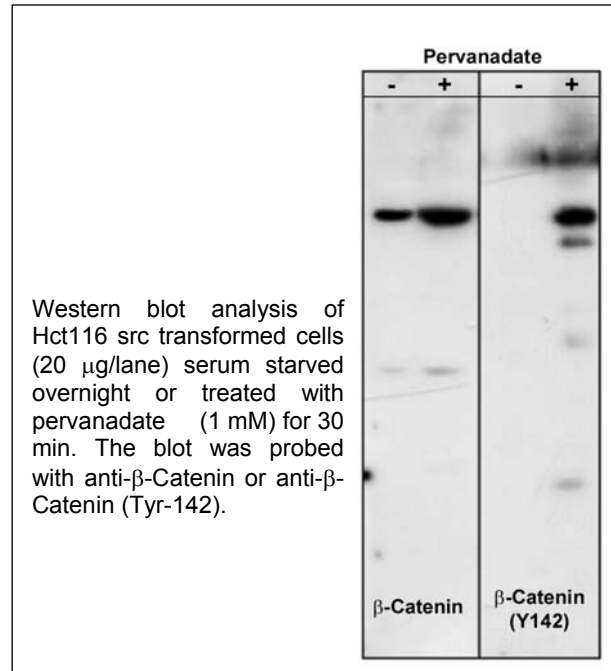
This antibody was cross-adsorbed to phospho-tyrosine coupled to agarose before affinity purification using phospho- β -Catenin (Tyr-142) peptide (without carrier). The antibody detects a 92kDa* protein corresponding to the molecular mass of β -Catenin on SDS-PAGE immunoblots of Hct116 src transformed cells treated with pervanadate, but not in control cells. Similar results were observed in other pervanadate-treated cell lines, such as 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 (C-terminal) Rabbit Polyclonal
CM1181 β -Catenin Mouse Monoclonal



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