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Anti-β-Catenin (Tyr-142) [γ-Catenin (Tyr-133)], Phosphospecific Antibody

Catalog # AN1677

Product Information

Application	WB, ICC
Primary Accession	P35222
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	85497

Additional Information

Gene ID	1499
Other Names	Catenin beta1, CTNNB1, catenin
Target/Specificity	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 86 and 654 in β-Catenin. The Tyr-654 phosphorylation regulates β-Catenin binding to E-cadherin. Thus, site-specific tyrosine phosphorylation of β-Catenin may regulate protein-protein interactions leading to changes in cell adhesion.
Dilution	WB~~1:1000 ICC~~N/A
Format	Antigen Affinity Purified
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-β-Catenin (Tyr-142) [γ-Catenin (Tyr-133)], Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

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 86 and 654 in β-Catenin. The Tyr-654 phosphorylation regulates β-Catenin binding to E-cadherin. Thus, site-specific tyrosine phosphorylation of β-Catenin may regulate protein-protein interactions leading to changes in cell adhesion.