

β-Catenin

Cat. # CM1181

Host Mouse Monoclonal IgG1

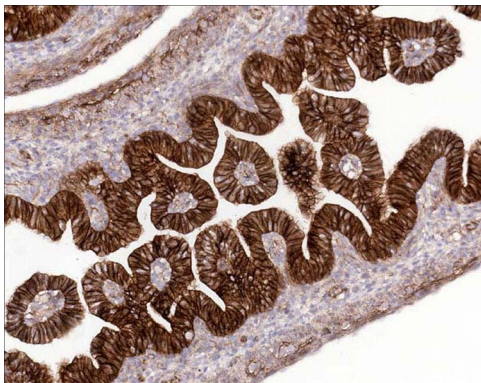
Size 100 μl

Background:

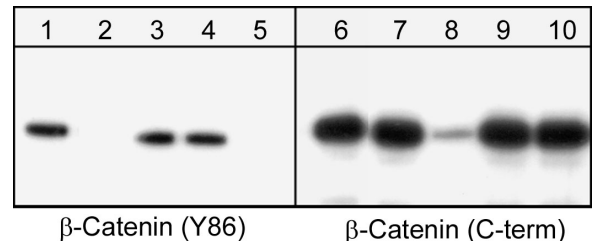
β-Catenin is a 92 kDa protein that binds to the cytoplasmic tail of E-Cadherin. The cadherins, transmembrane adhesion molecules, are found with catenins at adherens junctions. Deletions in the cytoplasmic domain of E-Cadherin eliminate catenin binding and result in a loss of cell adhesion. Tyrosine phosphorylation 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.

References

- Ozawa, M. et al. (1990) Proc. Natl. Acad. Sci. USA 87:4246.
Roura, S. et al. (1999) J Biol Chem. 274(51) :36734.
Piedra, J. et al. (2003) Mol. Cell. Biol. 23(7):2287-2297.
Brembeck, F.H. et al. (2004) Genes Dev. 18(18):2225-2230.



Formalin fixed, citric acid treated paraffin sections of embryonic Rat E16 intestines. Sections were probed with anti-β-Catenin (CM1181) then anti-mouse:HRP before detection using DAB. (Images provided by Carl Hobbs and Dr. Pat Doherty at Wolfson Centre for Age-Related Diseases, King's College London).



Western blot analysis of β-Catenin immunoprecipitated from A431 cells treated with pervanadate. The blots were probed with either anti-β-Catenin (Tyr-86) or anti-β-Catenin (C-terminal) polyclonal antibodies. The immunoprecipitated β-Catenin was untreated (lanes 1 & 6) or treated with alkaline phosphatase (lanes 5 & 10) then probed with the antibodies. In addition, these antibodies were used in the presence of phospho-β-Catenin (Tyr-86) peptide (lanes 2 & 7), β-Catenin (C-terminal) peptide (lanes 3 & 8), or BSA-coupled phosphotyrosine (lanes 4 & 9).

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Size 100 μ l

Immunogen:

Clone (M118) was generated from a recombinant protein corresponding to amino acid residues in the C-terminal region of human β -Catenin. This peptide sequence is highly conserved in rat and mouse β -Catenin.

Buffer and Storage:

Mouse monoclonal antibody purified with protein A chromatography 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	1:1000	ICC	1:250
ELISA	1:2000	IHC	1:500
IP	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:

The antibody detects a 92 kDa* protein corresponding to the molecular mass of β -Catenin on SDS-PAGE immunoblots of A431 and Hct116 src transformed cells. In addition, this antibody recognizes only β -Catenin in immunoprecipitations using anti- β -Catenin versus γ -Catenin.

*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
- CP1081 β -Catenin (Tyr-142), phospho-specific [Conserved site] Rabbit
- CP1201 β -Catenin / γ -Catenin (C-terminal) Rabbit Polyclonal
- CP1061 β -Catenin (N-terminal) Rabbit Polyclonal

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