

δ 1-Catenin (Tyr-280), phospho-specific

Cat. # CM3571

Host Mouse Monoclonal IgG1

Size 100 μ l

Background:

Catenins have emerged as molecular sensors that integrate cell-cell junctions and cytoskeletal dynamics with signaling pathways that control morphogenesis and cell to cell communication. δ 1-Catenin (p120 catenin) is a catenin family member which contains an N-terminal coiled-coil domain, a regulatory domain containing multiple phosphorylation sites, and a central Armadillo repeat domain. δ 1-Catenin regulates E-cadherin turnover, and has both positive and negative effects on cadherin-mediated adhesion. Actin dynamics are also regulated by δ 1-Catenin, which can modulate RhoA, Rac and cdc42 activity. δ 1-Catenin is phosphorylated at multiple tyrosine, serine and threonine sites both *in vitro* and *in vivo*. High levels of δ 1-Catenin phosphorylated at Tyr-228 are commonly seen in several carcinoma cell lines and after EGFR activation. Many other tyrosine sites are also phosphorylated in the N-terminal region including Tyr-96, Tyr-112, Tyr-280, and Tyr-302. In addition, Thr-310 and Thr-916 are constitutively phosphorylated in many cell types, however this phosphorylation may occur only in δ 1-Catenin associated with the plasma membrane.

References

- Mariner, D.J. et al. (2001) J. Biol. Chem. 276:28006.
 Reynolds, A.B. & Rocznik-Ferguson, A. (2004) Oncogene 23:7947.
 Fukumoto, Y. et al. (2008) Exp. Cell Res. 314:52.

Immunogen:

Phospho- δ 1-Catenin (Tyr-280) synthetic peptide corresponds to amino acid residues around tyrosine 280 of human δ 1-Catenin. This peptide sequence is highly conserved in rat and mouse δ 1-Catenin.

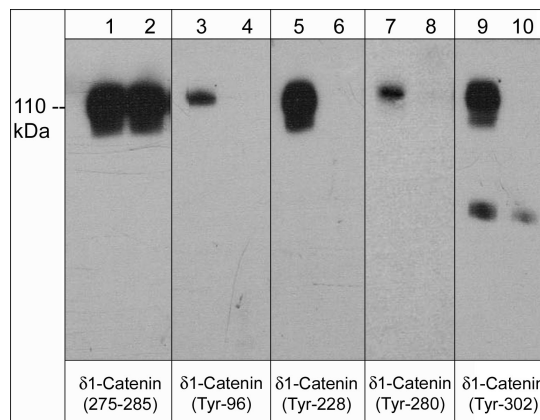
Applications:

WB 1:1000
 ELISA 1:2000

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 1 hour at room temperature.

Related Products:

- CM3541 δ 1-Catenin (a.a. 275-285) Mouse Monoclonal
 CM3551 δ 1-Catenin (Tyr-96), phospho-specific Mouse Monoclonal
 CM3561 δ 1-Catenin (Tyr-228), phospho-specific Mouse Monoclonal
 CM3601 δ 1-Catenin (Tyr-302), phospho-specific Mouse Monoclonal
 CP3621 δ 1-Catenin (Thr-916), phospho-specific Rabbit Polyclonal
 CK6120 β -Catenin Phospho-Regulation Antibody Sampler Kit



Western blot analysis of δ 1-Catenin phosphorylation in A431 cells stimulated with pervanadate (1 mM) for 30 min. (lanes 1, 3, 5, 7, & 9). The blot was then treated with alkaline phosphatase (lanes 2, 4, 6, 8, & 10). Blots were probed with mouse monoclonal anti- δ 1-Catenin (a.a. 275-285) (lanes 1 & 2), anti- δ 1-Catenin (Tyr-96) (lanes 3 & 4), anti- δ 1-Catenin (Tyr-228) (lanes 5 & 6), anti- δ 1-Catenin (Tyr-280) (lanes 7 & 8) or anti- δ 1-Catenin (Tyr-302) (lanes 9 & 10).

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.

Specificity:

The antibody detects a 110 kDa* protein corresponding to the molecular mass of δ 1-Catenin on SDS-PAGE immunoblots of human A431 and HUVEC cells treated with pervanadate. This antibody does not detect this band after alkaline phosphatase treatment.

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

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