

δ1-Catenin (a.a. 275-285)

Cat. # CM3541

Host Mouse Monoclonal IgG1

Size 100 µl

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. δ1-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. δ1-Catenin regulates E-cadherin turnover, and has both positive and negative effects on cadherin-mediated adhesion. Actin dynamics are also regulated by δ1-Catenin, which can modulate RhoA, Rac and cdc42 activity. δ1-Catenin is phosphorylated at multiple tyrosine, serine and threonine sites both *in vitro* and *in vivo*. High levels of δ1-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 δ1-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:

Clone (M354) was generated from a peptide that includes amino acid 275 to 285 of human δ1-Catenin. This peptide sequence is highly conserved in rat and mouse δ1-Catenin.

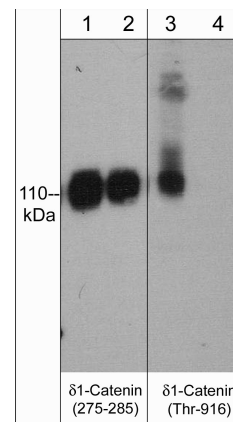
Applications:

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:

CM3551 δ1-Catenin (Tyr-96), phospho-specific Mouse Monoclonal
 CM3561 δ1-Catenin (Tyr-228), phospho-specific Mouse Monoclonal
 CM3571 δ1-Catenin (Tyr-280), phospho-specific Mouse Monoclonal
 CM3601 δ1-Catenin (Tyr-302), phospho-specific Mouse Monoclonal
 CP3621 δ1-Catenin (Thr-916), phospho-specific Rabbit Polyclonal
 CK6120 β-Catenin Phospho-Regulation Antibody Sampler Kit



Western blot analysis of δ1-Catenin phosphorylation in A431 cells stimulated with calyculin A (100 nM) for 30 min. (lanes 1 & 3) then the blot was treated with lambda phosphatase (lanes 2 & 4). The blots were probed with either mouse monoclonal anti-δ1-Catenin (a.a. 275-285) (lanes 1 & 2) or rabbit polyclonal anti-δ1-Catenin (Thr-916) (lanes 3 & 4).

Buffer and Storage:

Mouse monoclonal antibody purified with protein A chromatography is supplied in 100µl 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 δ1-Catenin on SDS-PAGE immunoblots of human A431 and HUVEC 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.

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web: www.ecmbiosciences.com

telephone: 859-879-2075

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toll-free: 1-800-859-8202

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