

# $\delta$ 1-Catenin (Thr-916), phospho-specific

Cat. # CP3621

Host Rabbit Polyclonal

Size 100  $\mu$ 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.  $\delta$ 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.  $\delta$ 1-Catenin regulates E-cadherin turnover, and has both positive and negative effects on cadherin-mediated adhesion. Actin dynamics are also regulated by  $\delta$ 1-Catenin, which can modulate RhoA, Rac and cdc42 activity.  $\delta$ 1-Catenin is phosphorylated at multiple tyrosine, serine and threonine sites both *in vitro* and *in vivo*. High levels of  $\delta$ 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  $\delta$ 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- $\delta$ 1-Catenin (Thr-916) synthetic peptide corresponds to amino acid residues around threonine 916 of human  $\delta$ 1-Catenin. This peptide sequence is highly conserved in rat and mouse  $\delta$ 1-Catenin.

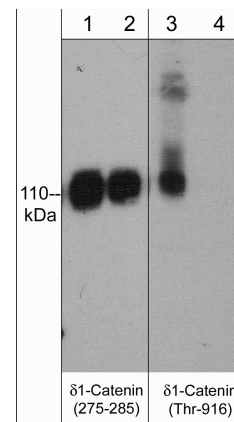
## Applications:

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  $\delta$ 1-Catenin (a.a. 275-285) Mouse Monoclonal  
 CM3551  $\delta$ 1-Catenin (Tyr-96), phospho-specific Mouse Monoclonal  
 CM3561  $\delta$ 1-Catenin (Tyr-228), phospho-specific Mouse Monoclonal  
 CM3571  $\delta$ 1-Catenin (Tyr-280), phospho-specific Mouse Monoclonal  
 CM3601  $\delta$ 1-Catenin (Tyr-302), phospho-specific Mouse Monoclonal  
 CK6120  $\beta$ -Catenin Phospho-Regulation Antibody Sampler Kit



Western blot analysis of  $\delta$ 1-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- $\delta$ 1-Catenin (a.a. 275-285) (lanes 1 & 2) or rabbit polyclonal anti- $\delta$ 1-Catenin (Thr-916) (lanes 3 & 4).

## Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100 $\mu$ l phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at  $-20^{\circ}$ C. Do not aliquot. Stable for 1 year.

## Specificity:

This antibody was affinity purified using phospho- $\delta$ 1-Catenin (Thr-916) peptide (without carrier). The antibody detects a 110 kDa\* protein corresponding to the molecular mass of  $\delta$ 1-Catenin on SDS-PAGE immunoblots of A431 cells treated with calyculin A, but does not detect this band after lambda 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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