

### **Product Datasheet**

# Anti-δ1-Catenin (central region) Antibody

#### Overview

 Catalog #
 CM3541

 Size
 100 μL

Host SpeciesMouse MonoclonalFormatProtein A Purified

**Applications** WB 1:1000 ICC 1:100 IP 1:50

Species Tested Human, Mouse, and Rat

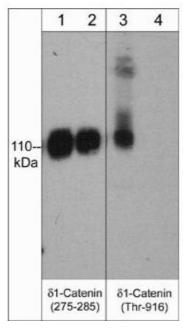
Immunogen Clone (M354) was generated from a peptide that includes amino acids from the central region of

human  $\delta$ 1-Catenin. This peptide sequence is highly conserved in rat and mouse  $\delta$ 1-Catenin.

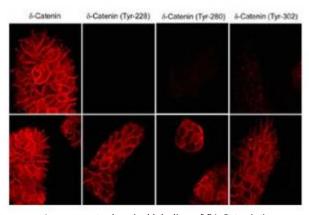
Molecular Weight 110 kDa

Cite this Antibody PhosphoSolutions Cat# CM3541, RRID:AB\_1769552

#### **Images**



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).



Immunocytochemical labeling of  $\delta 1\text{-}Catenin$  in untreated (Top) or pervanadate-treated (bottom) A431 cells. The cells were labeled with mouse monoclonal  $\delta 1\text{-}Catenin$  (a.a. 275-285),  $\delta 1\text{-}Catenin$  (Tyr-228),  $\delta 1\text{-}Catenin$  (Tyr-280), or  $\delta 1\text{-}Catenin$  (Tyr-302) antibodies. The antibodies were detected using donkey anti-mouse secondary antibodies conjugated to Cy3.

#### **Details**

#### **Target Description**

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 constituitively phosphorylated in many cell types, however this phosphorylation may occur only in  $\delta 1$ -Catenin associated with the plasma membrane.

**Specificity** 

The antibody detects a 110 kDa\* protein corresponding to the molecular mass of  $\delta 1\text{-}Catenin\ on\$ 

SDS-PAGE immunoblots of human A431 and HUVEC cells.

**Quality Control** 

Western blots performed on each lot.

Buffer

PBS + 1 mg/ml BSA, 0.05% NaN3 and 50% glycerol

Storage

Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to

presence of 50% glycerol. Stable for at least 1 year at -20°C.

Stability

After date of receipt, stable for at least 1 year at -20°C.

## **Significant Citations**

Chow, S.-E., Meir, Y.-J.J., Li, J.-M., Hsu, P.-C. and Yang, C.-T. (2022). Nuclear p120 catenin is a component of the perichromosomal layer and coordinates sister chromatid segregation during mitosis in lung cancer cells. *Cell Death & Disease*, 13(6), p.526.

Yang, C.-T., Li, J.-M., Chu, W.-K. and Chow, S.-E. (2018). Downregulation of lumican accelerates lung cancer cell invasion through p120 catenin. *Cell Death & Disease*, 9(4).

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