

δ1-Catenin Phospho-Regulation Antibody Sampler Kit

Catalog # CK6230

Kit Components:

Catalog#	Description	Host	Size	Applications	Species Reactivity	MW (kDa)
CM3541	δ1-Catenin (a.a. 275-285)	Mouse mAb	50 µl	WB, E, ICC	H, R, M	110
CM3551	δ1-Catenin (Tyr-96), phospho-specific	Mouse mAb	50 µl	WB, E	H, R, M	110
CM3561	δ1-Catenin (Tyr-228), phospho-specific	Mouse mAb	50 µl	WB, E, ICC	H, R, M	110
CM3571	δ1-Catenin (Tyr-280), phospho-specific	Mouse mAb	50 µl	WB, E, ICC	H, R, M	110
CM3601	δ1-Catenin (Tyr-302), phospho-specific	Mouse mAb	50 µl	WB, E, ICC	H, R, M	110
CP3621	δ1-Catenin (Thr-916), phospho-specific	Rabbit pAb	50 µl	WB, E, ICC	H, R, M	110

Applications: WB = Western blot, E = ELISA, ICC = Immunocytochemistry.

Species: H = Human, R = Rat, M = Mouse

Kit Summary:

The δ1-Catenin phospho-regulation antibody sampler kit may be used to examine phosphorylation of δ1-Catenin at Tyr-96, Tyr-228, Tyr-280, Tyr-302, and Thr-916. The kit also includes a monoclonal antibody to monitor total expression levels of δ1-Catenin.

Buffers and Storage:

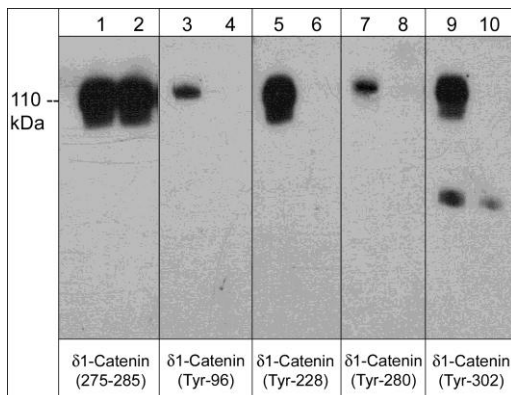
Mouse monoclonal and rabbit polyclonal antibodies are supplied in 50µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

Background:

Catenins are 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.

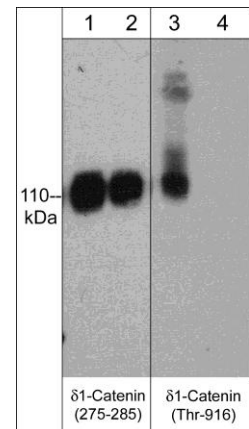
References:

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.



Western blot analysis of δ1-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-δ1-Catenin (a.a. 275-285) (lanes 1 & 2), anti-δ1-Catenin (Tyr-96) (lanes 3 & 4), anti-δ1-Catenin (Tyr-228) (lanes 5 & 6), anti-δ1-Catenin (Tyr-280) (lanes 7 & 8) or anti-δ1-Catenin (Tyr-302) (lanes 9 & 10).

δ1-Catenin phosphorylation in A431 cells stimulated with calyculin A (100 nM) for 30 min. (lanes 1 & 3). The blots were treated with lambda phosphatase (lanes 2 & 4), then 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).



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