Catalog No. LF-PA0140

POLYCLONAL ANTIBODY

Anti-beta Catenin (N)

Background : β-Catenin was a cytosolic protein originally identified through its association with the cadherin class of cell-adhesion proteins. β-Catenin has two key cellular functions; one plays direct role in cell adhesion/migration, bridging between cadherins and tactin cytoskeleton. The other plays as a transcription cofactor with T cell factor/lymphoid enhancer factor (TCF/LEF) in the Wnt pathway. Wnt are powerful regulators of cell proliferation and differentiation, and their signaling pathway involves proteins that directly participate in both gene transcription and cell adhesion. Activation of Wnt signaling leads to inhibition of Glycogen synthase-3β (GSK-3β) activity, resulting in accumulation of cytoplasmic (signaling) β-Catenin, which becomes available to bind the TCF/LEF family of transcription factors and to induce target gene expression. In the absence of Wnt signaling, A complex of axin and casein kinase-I(CK-I) induces β-Catenin phosphorylation at a single site: serine 45(Ser45). This likely serves as a priming site for subsequent phosphorylation by GSK3b. And then β-Catenin is phosphorylated by GSK-3β at Ser33/37 and Thr41. These serine/threonine phosphylation is required for the phosph rylation-dependant degradation of beta catenin via ubiquitin-proteosome pathway. Mutation of these phosphorylation sites in β-Catenin has been found in many tumor cell lines.

Immunogen : His-tagged recombinant Human β-Catenin (N-terminal fragment) protein purified from *E. coli*

Host : Rabbit

Size : 100 μℓ

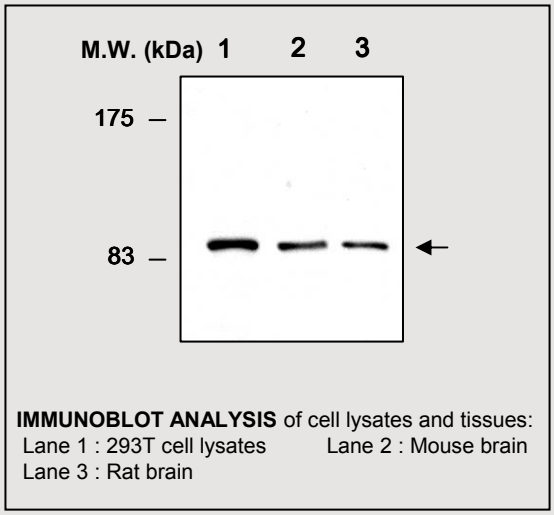
Composition : PBS containing 50% glycerol

Positive control : 293T cell lysate

Storage : Store for 1 year at -20°C from date of shipment

Species cross reactivity

Human	Mouse	Rat
+	+	+



IMMUNOBLOT ANALYSIS of cell lysates and tissues:
Lane 1 : 293T cell lysates Lane 2 : Mouse brain
Lane 3 : Rat brain

Applications :
Western Blotting (1:2000~4000)
Immunoprecipitation (3 μℓ/400 μℓ cell lysates)

Background Reference :

(1) Hinck L, et al. (1994)*Trends Biochem Sci.* **19**(12) :538-42
(2) Schneider SQ, et al. (2003) *J Exp Zoolog B Mol Dev Evol*. **295**(1):25-44
(3) W. James Nelson et al. (2004) *Science* **303** :1483-7
(4) Amit S, et al. (2002) *Genes Dev*. **16**(9):1066-76
(5) Morin P.J., et al. (1997) *Science* **275**:1787-1790

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