Anti-Beta Catenin Antibody

0407-16

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Zebrafish, Rat
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size: 85 kDa

Description: Key downstream component of the canonical Wnt signaling pathway In the absence of Wnt, forms a complex with AXIN1, AXIN2, APC, CSNK1A1 and GSK3B that promotes phosphorylation on N-terminal Ser and Thr residues and ubiquitination of CTNNB1 via BTRC and its subsequent degradation by the proteasome. In the presence of Wnt ligand, CTNNB1 is not ubiquitinated and accumulates in the nucleus, where it acts as a coactivator for transcription factors of the TCF/LEF family, leading to activate Wnt responsive genes Involved in the regulation of cell adhesion, as component of an E-cadherin:catenin adhesion complex. Acts as a negative regulator of centrosome cohesion. Involved in the CDK2/PTPN6/CTNNB1/CEACAM1 pathway of insulin internalization. Blocks anoikis of malignant kidney and intestinal epithelial cells and promotes their anchorage-independent growth by down-regulating DAPK2. Disrupts PML function and PML-NB formation by inhibiting RANBP2-mediated sumoylation of PML. Promotes neurogenesis by maintaining sympathetic neuroblasts within the cell cycle. Involved in chondrocyte differentiation via interaction with SOX9: SOX9-binding competes with the binding sites of TCF/LEF within CTNNB1, thereby inhibiting the Wnt signaling.

Immunogen: Synthetic peptide within N-terminal human beta Catenin.

Positive control: Hybrid fish (crucian-carp) heart tissue lysates, SW480, A431 cell lysate, SW480 cell lysate, mouse liver tissue lysates.

Subcellular location: Cell membrane, Synapse, Cell junction, Cytoplasm, Nucleus, Cytoskeleton.

Database links: SwissProt: P35222 Human | Q02248 Mouse | Q9WU82 Rat

Recommended Dilutions:

WB	1:500-1:5,000
IF-Cell	1:200

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Images

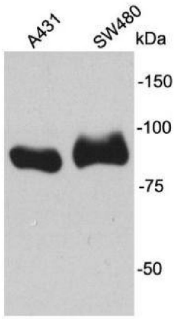

Fig1: Western blot analysis of beta Catenin on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (0407-16, 1/5,000) was used in 5% NFDM/TBST at room temperature for 1 hour. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 45 mins at room temperature.

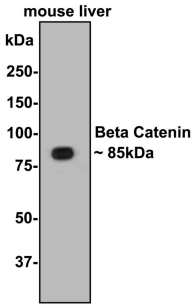

Fig2: Western blot analysis of Beta Catenin on mouse liver tissue lysates with Rabbit anti-Beta Catenin antibody (0407-16) at 1/500 dilution.

Lysates/proteins at 10 µg/Lane.

Predicted band size: 85 kDa
Observed band size: 85 kDa

Exposure time: 30 seconds;

8% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (0407-16) at 1/500 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:40,000 dilution was used for 1 hour at room temperature.

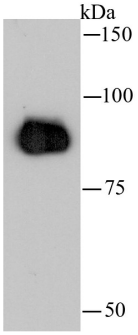

Fig3: Western blot analysis of beta Catenin on hybrid fish (crucian-carp) heart tissue lysates. Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (0407-16, 1/500) was used in 5% NFDM/TBST at room temperature for 1 hour. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 45 mins at room temperature.

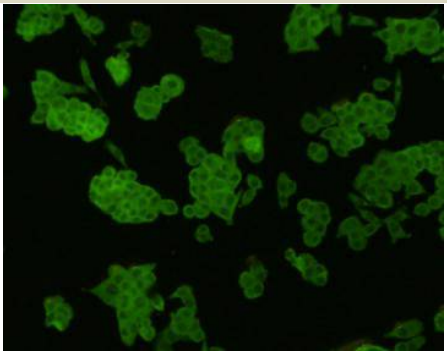

Fig4: ICC staining of beta Catenin in SW480 cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (0407-16, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution.

Background References

1. Kikuchi A.;"Regulation of beta-catenin signaling in the Wnt pathway."; Biochem. Biophys. Res. Commun. 268:243-248(2000).
2. Dobrosotskaya I.Y., James G.L.; "MAGI-1 interacts with beta-catenin and is associated with cell-cell adhesion structures."; Biochem. Biophys. Res. Commun. 270:903-909(2000).
3. Kim J.-S., Crooks H., Dracheva T., Nishanian T.G., Singh B., Jen J., Waldman T.; "Oncogenic beta-catenin is required for bone morphogenetic protein 4 expression in human cancer cells."; Cancer Res. 62:2744-2748(2002).