Anti-Beta-catenin Antibody [10-C0-B7]

M1405-6

Product Type:	Mouse monoclonal IgG2b, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P, FC
Molecular Wt:	85 kDa
Clone number:	10-C0-B7

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 C-terminal human Beta-catenin.
Positive control:	Hela, 293T, human colon carcinoma tissue.
Subcellular location:	Cytoplasm, nucleus
Database links:	SwissProt: P35222 Human | Q02248 Mouse | Q9WU82 Rat

Recommended Dilutions:

WB	1:2000
IF-Cell	1:200
IHC-P	1:200
FC	1:100

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:	Protein G affinity purified.

Images

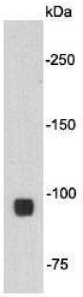

Fig1: Western blot analysis on 293T cell lysates using anti- Beta-catenin mouse mAb.

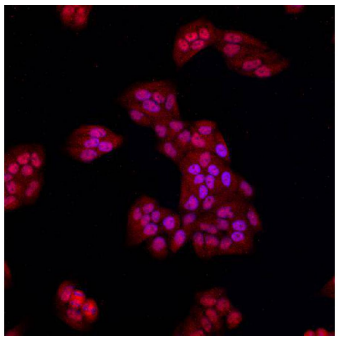

Fig2: ICC staining Beta-catenin in Hela cells (red). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS and counterstained with DAPI in order to highlight the nucleus (blue).

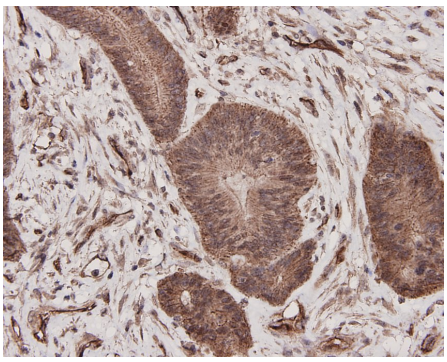

Fig3: Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue using anti-Beta-catenin antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (M1405-6, 1/200) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. "The inner nuclear membrane protein emerin regulates beta-catenin activity by restricting its accumulation in the nucleus." Markiewicz E., Tilgner K., Barker N., van de Wetering M., Clevers H., Dorobek M., Hausmanowa-Petrusewicz I., Ramaekers F.C.S., Broers J.L.V., Blankesteijn W.M., Salpingidou G., Wilson R.G., Ellis J.A., Hutchison C.J. EMBO J. 25:3275-3285(2006)
2. "The tumor suppressor Fhit acts as a repressor of beta-catenin transcriptional activity." Weiske J., Albring K.F., Huber O. Proc. Natl. Acad. Sci. U.S.A. 104:20344-20349(2007)
3. "Identification of beta-catenin as a target of the intracellular tyrosine kinase PTK6." Palka-Hamblin H.L., Gierut J.J., Bie W., Brauer P.M., Zheng Y., Asara J.M., Tyner A.L. J. Cell Sci. 123:236-245(2010)

Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation