

## Catenin- $\beta$ Monoclonal Antibody

<b>Catalog No :</b>	YM0094
<b>Reactivity :</b>	Human
<b>Applications :</b>	WB;IHC;IF;FCM;ELISA
<b>Target :</b>	Catenin- $\beta$
<b>Fields :</b>	>>Rap1 signaling pathway;>>Wnt signaling pathway;>>Hippo signaling pathway;>>Focal adhesion;>>Adherens junction;>>Signaling pathways regulating pluripotency of stem cells;>>Leukocyte transendothelial migration;>>Melanogenesis;>>Thyroid hormone signaling pathway;>>Cushing syndrome;>>Alcoholic liver disease;>>Alzheimer disease;>>Pathways of neurodegeneration - multiple diseases;>>Bacterial invasion of epithelial cells;>>Salmonella infection;>>Hepatitis C;>>Human cytomegalovirus infection;>>Human papillomavirus infection;>>Kaposi sarcoma-associated herpesvirus infection;>>Pathways in cancer;>>Proteoglycans in cancer;>>Colorectal cancer;>>Endometrial cancer;>>Prostate cancer;>>Thyroid cancer;>>Basal cell carcinoma;>>Breast cancer;>>Hepatocellular carcinoma;>>Gastric cancer;>>Arrhythmogenic right ventricular cardiomyopathy;>>Fluid shear stress and atherosclerosis
<b>Gene Name :</b>	CTNNB1 CTNNB OK/SW-cl.35 PRO2286
<b>Protein Name :</b>	Catenin- $\beta$ ;b-catenin;Beta catenin;Beta-catenin;Cadherin associated protein;Catenin (cadherin associated protein), beta 1, 88 kDa;Catenin beta 1;Catenin beta-1;CATNB;CHBCAT;CTNB1_HUMAN;CTNNB;CTNNB1;DKFZ
<b>Human Gene Id :</b>	1499
<b>Human Swiss Prot No :</b>	P35222
<b>Mouse Swiss Prot No :</b>	Q02248
<b>Immunogen :</b>	Purified recombinant fragment of human Catenin- $\beta$ expressed in E. Coli.
<b>Specificity :</b>	Catenin- $\beta$ Monoclonal Antibody detects endogenous levels of Catenin- $\beta$ protein.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

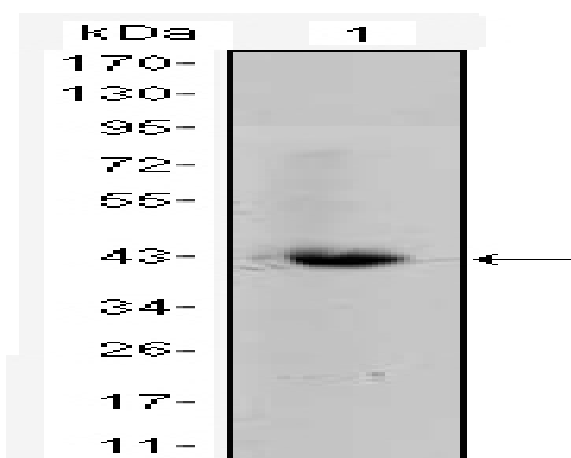
<b>Source :</b>	Monoclonal, Mouse
<b>Dilution :</b>	WB 1:500 - 1:2000. IHC 1:200 - 1:1000. IF 1:200 - 1:1000. Flow cytometry: 1:200 - 1:400. ELISA: 1:10000. Not yet tested in other applications.
<b>Purification :</b>	Affinity purification
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Observed Band :</b>	92kD
<b>Cell Pathway :</b>	Stem cell pathway; Adherens_Junction; Protein_Acetylation
<b>P References :</b>	<ol style="list-style-type: none"><li>1. Cancer Gennet Cytogenet. 2008. 187(1):12-8.</li><li>2. Hepatobiliary Pancreat Dis Int. 2008. 7(5):490-6</li><li>3. J Biol Chem. 1995. 270(10):5549-55.</li><li>4. EMBO J. 1998. 17(5):137-84.</li></ol>
<b>Background :</b>	<p>The protein encoded by this gene is part of a complex of proteins that constitute adherens junctions (AJs). AJs are necessary for the creation and maintenance of epithelial cell layers by regulating cell growth and adhesion between cells. The encoded protein also anchors the actin cytoskeleton and may be responsible for transmitting the contact inhibition signal that causes cells to stop dividing once the epithelial sheet is complete. Finally, this protein binds to the product of the APC gene, which is mutated in adenomatous polyposis of the colon. Mutations in this gene are a cause of colorectal cancer (CRC), pilomatrixoma (PTR), medulloblastoma (MDB), and ovarian cancer. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2016],</p>
<b>Function :</b>	<p>disease:A chromosomal rearrangement involving CTNNB1 may be a cause of salivary gland pleiomorphic adenomas (PA) [181030]. Pleiomorphic adenomas are the most common benign epithelial tumors of the salivary gland. Translocation t(3;8)(p21;q12) with PLAG1.,disease:Activating mutations in CTNNB1 have oncogenic activity resulting in tumor development. Somatic mutations are found in various tumor types, including colon cancers, ovarian and prostate carcinomas, hepatoblastoma (HB), hepatocellular carcinoma (HCC). HBs are malignant embryonal tumors mainly affecting young children in the first three years of life.,disease:Defects in CTNNB1 are a cause of medulloblastoma (MDB) [MIM:155255]. MDB is a malignant, invasive embryonal tumor of the cerebellum with a preferential manifestation in children.,disease:Defects in CTNNB1 are a cause of pilomatrixoma (PTR) [MIM:132600]; a common benign skin tum</p>
<b>Subcellular Location :</b>	Cytoplasm . Nucleus . Cytoplasm, cytoskeleton . Cell junction, adherens junction . Cell junction . Cell membrane . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle pole. Cell junction, synapse . Cytoplasm, cytoskeleton, cilium basal body . Colocalized with RAPGEF2 and TJP1 at cell-cell contacts (By similarity). Cytoplasmic when it is unstabilized (high

level of phosphorylation) or bound to CDH1. Translocates to the nucleus when it is stabilized (low level of phosphorylation). Interaction with GLIS2 and MUC1 promotes nuclear translocation. Interaction with EMD inhibits nuclear localization. The majority of beta-catenin is localized to the cell membrane. In interphase, colocalizes with CROCC between CEP250 puncta at the proximal end of cent

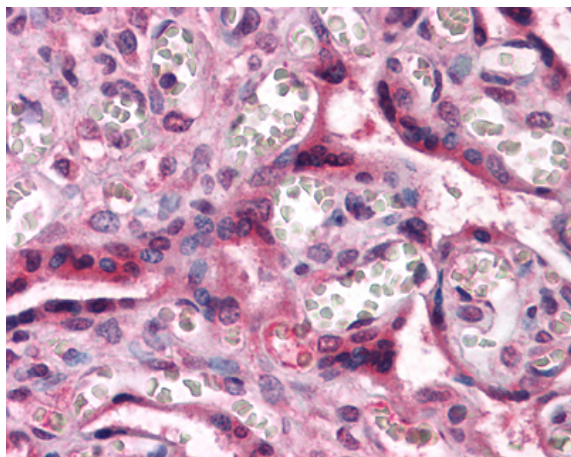
### Expression :

Expressed in several hair follicle cell types: basal and peripheral matrix cells, and cells of the outer and inner root sheaths. Expressed in colon. Present in cortical neurons (at protein level). Expressed in breast cancer tissues (at protein level) (PubMed:29367600).

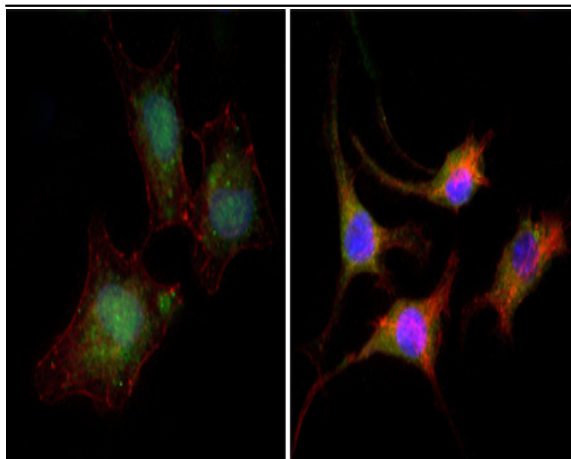
## Products Images



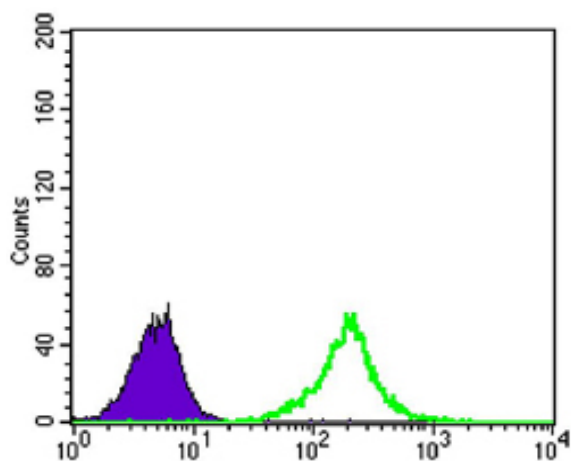
Western Blot analysis using Catenin- $\beta$  Monoclonal Antibody against CTNNB1-hlgGfc transfected HEK293 cell lysate.



Immunohistochemistry analysis of paraffin-embedded human Placenta tissues with AEC staining using Catenin- $\beta$  Monoclonal Antibody.



Immunofluorescence analysis of A549 (left) and SK-BR-3 (right) cells using Catenin- $\beta$  Monoclonal Antibody (green). Red: Actin filaments have been labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye.



Flow cytometric analysis of A549 cells using Catenin- $\beta$  Monoclonal Antibody (green) and negative control (purple).