



# Catenin- $\beta$ Monoclonal Antibody(4F2)

<b>Catalog No</b>	YP-Ab-16855
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat;Zebrafish
<b>Applications</b>	WB;IF;IHC
<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>Immunogen</b>	Recombinant Protein of Catenin- $\beta$
<b>Specificity</b>	The antibody detects endogenous Catenin- $\beta$ protein.
<b>Formulation</b>	PBS, pH 7.4, containing 0.5%BSA, 0.02% sodium azide as Preservative and 50% Glycerol.
<b>Source</b>	Monoclonal, Mouse
<b>Purification</b>	The antibody was affinity-purified from mouse ascites by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	WB: 1:1000-2000 IHC: 1:200-500 IF 1:200
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	$\geq 90\%$
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	CTNNB1; CTNNB; OK/SW-cl.35; Catenin beta-1; Beta-catenin
<b>Observed Band</b>	92kD
<b>Cell Pathway</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
<b>Tissue Specificity</b>	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).
<b>Function</b>	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 pilomatixoma (PTR) [MIM:132600]; a common benign skin tum

**Background**

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), pilomatixoma (PTR), medulloblastoma (MDB), and ovarian cancer. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2016],

**matters needing attention**

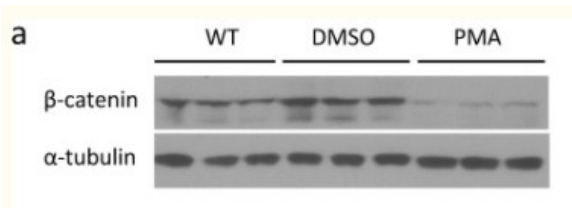
Avoid repeated freezing and thawing!

**Usage suggestions**

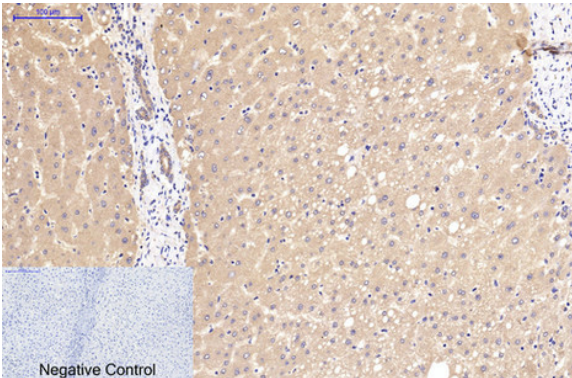
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



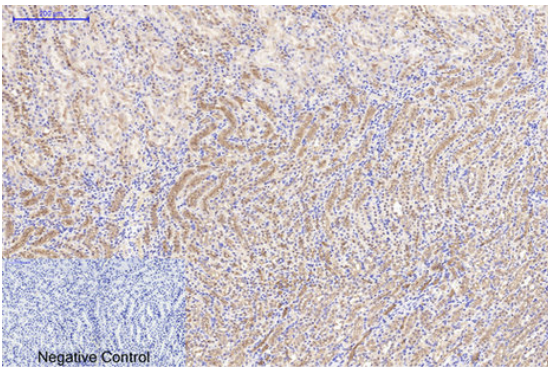
## Products Images



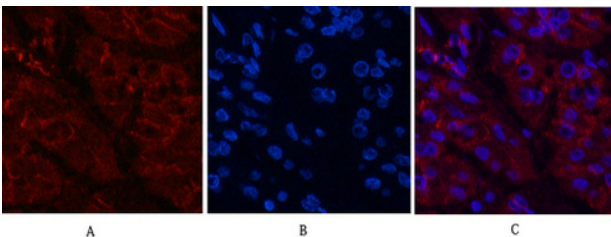
Liu, Taian, et al. "Developmental protein kinase C hyper-activation results in microcephaly and behavioral abnormalities in zebrafish." *Translational psychiatry* 8 (2018).



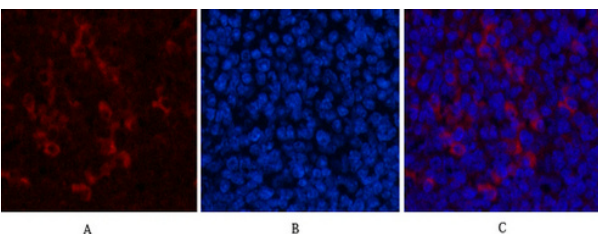
Immunohistochemical analysis of paraffin-embedded Human-liver tissue. 1, Catenin- $\beta$  Monoclonal Antibody(4F2) was diluted at 1:200(4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Mouse-kidney tissue. 1, Catenin- $\beta$  Monoclonal Antibody(4F2) was diluted at 1:200(4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



Immunofluorescence analysis of Human-stomach-cancer tissue. 1, Catenin- $\beta$  Monoclonal Antibody(4F2)(red) was diluted at 1:200(4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300(room temperature, 50min). 3, Picture B: DAPI(blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of Mouse-spleen tissue. 1, Catenin- $\beta$  Monoclonal Antibody(4F2)(red) was diluted at 1:200(4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300(room temperature, 50min). 3, Picture B: DAPI(blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B