

**PRODUCT DATA SHEET** 

# Catenin-β Monoclonal Antibody(4F2)

Catalog No.	IMB0036
Reactivity	Human;Mouse;Rat
Applications	WB; IF/ICC; IHC-p
Gene Name	CTNNB1
Protein Name	Catenin beta-1
Human Gene Id	1499
Swiss-Prot	P35222
Formulation	PBS, pH 7.4, containing 0.5%BSA, 0.02% sodium azide as Preservative and
	50% Glycerol.
Source	Monoclonal, Mouse
Dilution	WB: 1:1000-2000 IHC: 1:200-500 IF: 1:200
PurIF:ication	The antibody was affinity-purIF:ied from mouse ascites by affinity-
	chromatography using epitope-specIF:ic immunogen.
Concentration	-
Storage&Stability	-20°C/1 year
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), pilomatrixoma (PTR), medulloblastoma (MDB), and ovarian cancer. Alternative splicing results in multiple transcript variants.
Subcellular Location.	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 centrioles, and this localization is dependent on CROCC and CEP250. In mitosis, when NEK2 activity increases, it localizes to centrosomes at spindle



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poles independent of CROCC. Colocalizes with CDK5 in the cell-cell contacts and plasma membrane of undIF:ferentiated and dIF:ferentiated neuroblastoma cells. Interaction with FAM53B promotes translocation to the nucleus (PubMed:25183871).

#### **BiowMW**

### **Products Images:**



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



Immunohistochemical analysis of paraffin-embedded Human-liver tissue. 1,Catenin-β 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 Mousekidney 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.



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Immunofluorescence analysis of Human-stomach-cancer tissue. 1,Catenin-β Monoclonal Antibody(4F2)(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled 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-β Monoclonal Antibody(4F2)(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled 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



Western blot analysis of 1) Hela, 2) 293T, 3) Mouse Liver Tissue, 4) Rat Liver Tissue using Catenin-β Monoclonal Antibody.



Immunohistochemical analysis of paraffin-embedded Human Lung caricnoma using Catenin-β Monoclonal Antibody.