

Catenin- β Monoclonal Antibody(4F2) Catalog # AP63545

Specification

Catenin- β Monoclonal Antibody(4F2) - Product Information

Application	WB
Primary Accession	P35222
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal

Catenin- β Monoclonal Antibody(4F2) - Additional Information

Gene ID 1499

Other Names

CTNNB1; CTNNB; OK/SW-cl.35; Catenin beta-1; Beta-catenin

Dilution

WB~~WB: 1:1000-2000 IHC: 1:200-500 IF 1:200

Format

PBS, pH 7.4, containing 0.02% sodium azide as Preservative and 50% Glycerol.

Storage Conditions

-20°C

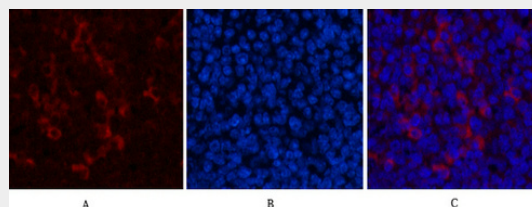
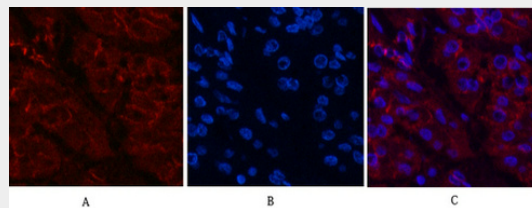
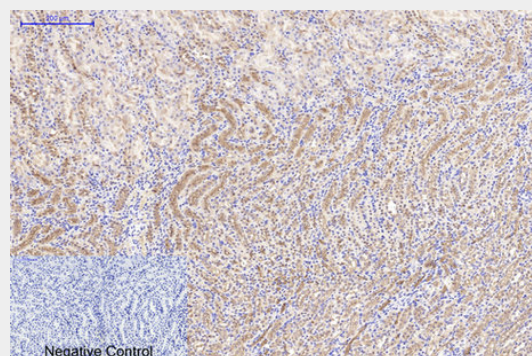
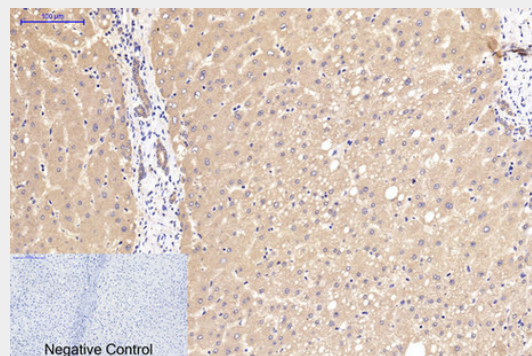
Catenin- β Monoclonal Antibody(4F2) - Protein Information

Name CTNNB1

Synonyms CTNNB

Function

Key downstream component of the canonical Wnt signaling pathway
(PubMed:17524503, PubMed:18077326, PubMed:18077326, PubMed:18077326)



Catenin- β Monoclonal Antibody(4F2) - Background

tations/18086858"
target="_blank">18086858,
PubMed:<a href="http://www.uniprot.org/ci
tations/18957423"
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PubMed:<a href="http://www.uniprot.org/ci
tations/21262353"
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PubMed:<a href="http://www.uniprot.org/ci
tations/22155184"
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PubMed:<a href="http://www.uniprot.org/ci
tations/22647378"
target="_blank">22647378,
PubMed:<a href="http://www.uniprot.org/ci
tations/22699938"
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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
(PubMed:<a href="http://www.uniprot.org/ci
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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
(PubMed:<a href="http://www.uniprot.org/ci
tations/17524503"
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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 (PubMed:17524503, PubMed:18077326, PubMed:18086858, PubMed:18957423, PubMed:21262353, PubMed:22647378, PubMed:22699938, PubMed:22155184). Promotes neurogenesis by maintaining sympathetic neuroblasts within the cell cycle (By similarity).

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target="_blank">22155184). Promotes neurogenesis by maintaining sympathetic neuroblasts within the cell cycle (By similarity). 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 (By similarity).

Cellular Location

Cytoplasm. Nucleus. Cytoplasm, cytoskeleton
{ECO:0000250|UniProtKB:B6V8E6}. Cell junction, adherens junction
{ECO:0000250|UniProtKB:Q02248}. Cell

junction

{ECO:0000250|UniProtKB:B6V8E6}. Cell membrane. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle pole Cell junction, synapse

{ECO:0000250|UniProtKB:Q02248}.

Cytoplasm, cytoskeleton, cilium basal body

{ECO:0000250|UniProtKB:Q02248}

Note=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 poles independent of CROCC.

Colocalizes with CDK5 in the cell-cell

contacts and plasma membrane of

undifferentiated and differentiated

neuroblastoma cells Interaction with

FAM53B promotes translocation to the

nucleus (PubMed:25183871).

{ECO:0000250|UniProtKB:B6V8E6,

ECO:0000269|PubMed:25183871}

Tissue Location

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).

Catenin- β Monoclonal Antibody(4F2) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)

- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)