

CTNNB1 Antibody (Ascites)
Mouse Monoclonal Antibody (Mab)
Catalog # AM2074a

Specification

CTNNB1 Antibody (Ascites) - Product Information

Application	WB,E
Primary Accession	P35222
Other Accession	P26233 , Q9WU82 , Q02248 , Q0VCX4 , P18824 , NP_001091679.1 , F1QGH7
Reactivity Predicted	Human Drosophila, Bovine, Zebrafish, Mouse, Rat, Xenopus
Host	Mouse
Clonality	Monoclonal
Isotype	IgM
Calculated MW	85497
Antigen Region	646-673

CTNNB1 Antibody (Ascites) - Additional Information

Gene ID 1499

Other Names

Catenin beta-1, Beta-catenin, CTNNB1, CTNNB

Target/Specificity

This CTNNB1 antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 646-673 amino acids from human CTNNB1.

Dilution

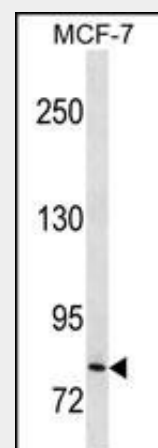
WB~~1:200~1600

Format

Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw



CTNNB1 Antibody (Cat. #AM2074a) western blot analysis in MCF-7 cell line lysates (35µg/lane). This demonstrates the CTNNB1 antibody detected the CTNNB1 protein (arrow).

CTNNB1 Antibody (Ascites) - 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. Three transcript variants encoding the same

cycles.

Precautions

CTNNB1 Antibody (Ascites) is for research use only and not for use in diagnostic or therapeutic procedures.

CTNNB1 Antibody (Ascites) - Protein Information

Name CTNNB1

Synonyms CTNNB

Function

Key downstream component of the canonical Wnt signaling pathway (PubMed:<a href="http://www.uniprot.org/citations/17524503"

target="_blank">17524503,

PubMed:<a href="http://www.uniprot.org/citations/18077326"

target="_blank">18077326,

PubMed:<a href="http://www.uniprot.org/citations/18086858"

target="_blank">18086858,

PubMed:<a href="http://www.uniprot.org/citations/18957423"

target="_blank">18957423,

PubMed:<a href="http://www.uniprot.org/citations/21262353"

target="_blank">21262353,

PubMed:<a href="http://www.uniprot.org/citations/22155184"

target="_blank">22155184,

PubMed:<a href="http://www.uniprot.org/citations/22647378"

target="_blank">22647378,

PubMed:<a href="http://www.uniprot.org/citations/22699938"

target="_blank">22699938). 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 (PubMed:<a href="http://www.uniprot.org/citations/17524503"

target="_blank">17524503,

PubMed:<a href="http://www.uniprot.org/citations/18077326"

target="_blank">18077326,

PubMed:<a href="http://www.uniprot.org/citations/18086858"

target="_blank">18086858,

PubMed:<a href="http://www.uniprot.org/ci

protein have been found
for this gene.

CTNNB1 Antibody (Ascites) - References

Huang, W., et al. Mol. Cell. Biol.

30(19):4575-4594(2010)

Chairoungdua, A., et al. J. Cell Biol.

190(6):1079-1091(2010)

Mirza, M.K., et al. J. Exp. Med.

207(8):1675-1685(2010)

Guo, Q., et al. Acta Biochim. Biophys. Sin.

(Shanghai) 42(7):450-456(2010)

Teng, Y., et al. Zhonghua Yi Xue Za Zhi

90(14):988-992(2010)

tations/18957423"
target="_blank">18957423,
PubMed:<a href="http://www.uniprot.org/ci
tations/21262353"
target="_blank">21262353,
PubMed:<a href="http://www.uniprot.org/ci
tations/22155184"
target="_blank">22155184,
PubMed:<a href="http://www.uniprot.org/ci
tations/22647378"
target="_blank">22647378,
PubMed:<a href="http://www.uniprot.org/ci
tations/22699938"
target="_blank">22699938). 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
(PubMed:<a href="http://www.uniprot.org/c
itations/17524503"
target="_blank">17524503,
PubMed:<a href="http://www.uniprot.org/ci
tations/18077326"
target="_blank">18077326,
PubMed:<a href="http://www.uniprot.org/ci
tations/18086858"
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tations/21262353"
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PubMed:<a href="http://www.uniprot.org/ci
tations/22155184"
target="_blank">22155184,
PubMed:<a href="http://www.uniprot.org/ci
tations/22647378"
target="_blank">22647378,
PubMed:<a href="http://www.uniprot.org/ci
tations/22699938"
target="_blank">22699938). Involved
in the regulation of cell adhesion, as
component of an E-cadherin:catenin
adhesion complex (By similarity). Acts as a
negative regulator of centrosome cohesion
(PubMed:<a href="http://www.uniprot.org/c
itations/18086858"
target="_blank">18086858). Involved
in the CDK2/PTPN6/CTNNB1/CEACAM1
pathway of insulin internalization
(PubMed:<a href="http://www.uniprot.org/c
itations/21262353"
target="_blank">21262353). Blocks
anoikis of malignant kidney and intestinal
epithelial cells and promotes their

anchorage-independent growth by down-regulating DAPK2 (PubMed:18957423). Disrupts PML function and PML- NB formation by inhibiting RANBP2-mediated sumoylation of PML (PubMed: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).

CTNNB1 Antibody (Ascites) - 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](#)