

Anti-Catenin, beta (p120) Antibody
Mouse Monoclonal Antibody
Catalog # AH13155

Specification

Anti-Catenin, beta (p120) Antibody - Product Information

Application ,1,14,3,4,
Primary Accession [P35222](#)
Other Accession [476018](#)
Reactivity Human, Mouse, Rat
Host Mouse
Clonality Monoclonal
Isotype Mouse / IgG1, kappa
Calculated MW 85497

Anti-Catenin, beta (p120) Antibody - Additional Information

Gene ID 1499

Other Names

Cadherin associated protein, beta 1 88kDa,
Catenin beta-1, CATNB, CHBCAT, CTNNB1

Format

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage

Store at 2 to 8°C. Antibody is stable for 24 months.

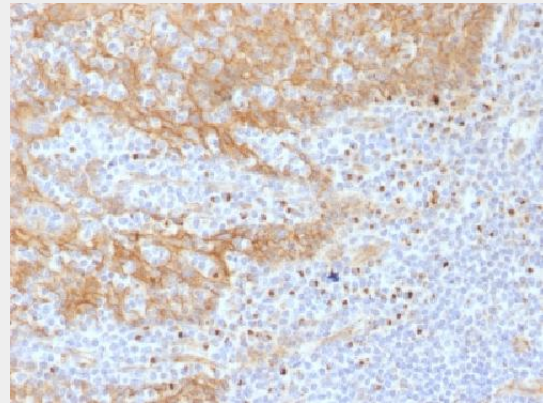
Precautions

Anti-Catenin, beta (p120) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

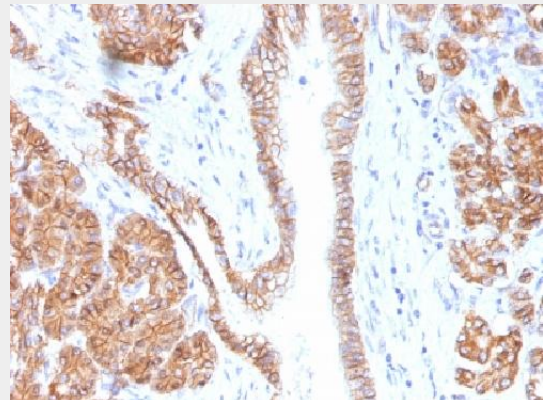
Anti-Catenin, beta (p120) Antibody - Protein Information

Name CTNNB1

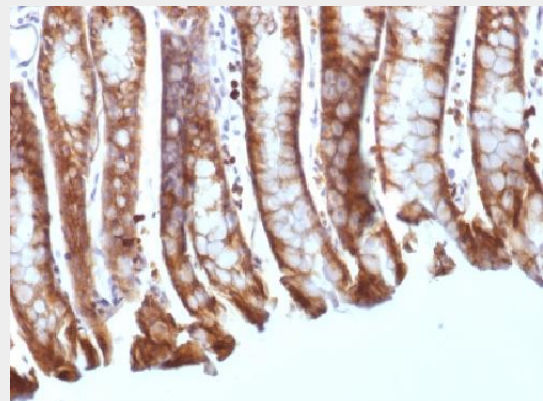
Synonyms CTNNB



Formalin-fixed, paraffin-embedded human Tonsil stained with Beta-Catenin (p120) Monoclonal Antibody (CTNNB1/1508).



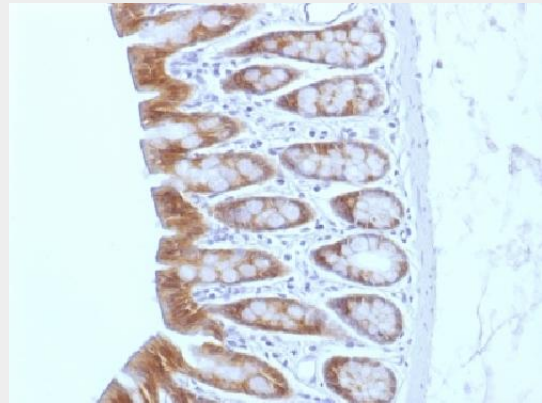
Formalin-fixed, paraffin-embedded human Pancreas stained with Beta-Catenin (p120) Monoclonal Antibody (CTNNB1/1508).



Function

Key downstream component of the canonical Wnt signaling pathway (PubMed:17524503, PubMed:18077326, PubMed:18086858, PubMed:18957423, PubMed:21262353, PubMed:22155184, PubMed:22647378, PubMed: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:17524503, PubMed:18077326, PubMed:18086858, PubMed:18957423, PubMed:21262353, PubMed:22155184, PubMed:22647378, PubMed:22699938). In the

Formalin-fixed, paraffin-embedded Mouse Colon stained with Beta-Catenin (p120) Monoclonal Antibody (CTNNB1/1508).



Formalin-fixed, paraffin-embedded Rat Colon stained with Beta-Catenin (p120) Monoclonal Antibody (CTNNB1/1508).

Anti-Catenin, beta (p120) Antibody - Background

Beta-catenin associates with the cytoplasmic portion of E-cadherin, which is necessary for the function of E-cadherin as an adhesion molecule. In normal tissues, beta-catenin is localized to the membrane of epithelial cells, consistent with its role in the cell adhesion complex. In breast ductal neoplasia, beta-catenin is usually localized in cellular membranes. However, in lobular neoplasia, a marked redistribution of beta-catenin throughout the cytoplasm results in a diffuse cytoplasmic pattern. Immuno-staining of beta-catenin and E-cadherin is helpful in the accurate identification of ductal and lobular neoplasms, including a distinction between low-grade ductal carcinoma in situ (DCIS) and lobular carcinoma. Additionally, some rectal and gastric adenocarcinomas demonstrate diffuse cytoplasmic beta-catenin staining and a lack of membranous staining, mimicking the staining pattern observed with lobular breast carcinomas.

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:17524503, PubMed:18077326, PubMed:18086858, PubMed:18957423, PubMed:21262353, PubMed:22155184, PubMed:22647378, PubMed: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:18086858). Involved in the CDK2/PTPN6/CTNNB1/CEACAM1 pathway of insulin internalization (PubMed: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).

Anti-Catenin, beta (p120) Antibody - 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](#)