

Anti-CTNNA1 Picoband Antibody
Catalog # ABO11838**Specification**

Anti-CTNNA1 Picoband Antibody - Product Information

Application	WB, IHC-P, IHC-F
Primary Accession	P35221
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Catenin alpha-1(CTNNA1) detection. Tested with WB, IHC-P, IHC-F in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-CTNNA1 Picoband Antibody - Additional Information

Gene ID 1495

Other Names

Catenin alpha-1, Alpha E-catenin, Cadherin-associated protein, Renal carcinoma antigen NY-REN-13, CTNNA1

Calculated MW

100071 MW KDa

Application Details

Immunohistochemistry(Frozen Section), 0.5-1 µg/ml, Rat,
-
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By
Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat

Subcellular Localization

Isoform 1: Cytoplasm, cytoskeleton. Cell junction, adherens junction. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell junction. Found at cell-cell boundaries and probably at cell-matrix boundaries.

Tissue Specificity

Expressed ubiquitously in normal tissues.

Protein Name

Catenin alpha-1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

E.coli-derived human CTNNA1 recombinant protein (Position: D143-D292). Human CTNNA1 shares 98% amino acid (aa) sequence identity with mouse CTNNA1.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the vinculin/alpha-catenin family.

Anti-CTNNA1 Picoband Antibody - Protein Information

Name CTNNA1 ([HGNC:2509](#))

Function

Associates with the cytoplasmic domain of a variety of cadherins. The association of catenins to cadherins produces a complex which is linked to the actin filament network, and which seems to be of primary importance for cadherins cell-adhesion properties. Can associate with both E- and N-cadherins. Originally believed to be a stable component of E-cadherin/catenin adhesion complexes and to mediate the linkage of cadherins to the actin cytoskeleton at adherens junctions. In contrast, cortical actin was found to be much more dynamic than E-cadherin/catenin complexes and CTNNA1 was shown not to bind to F-actin when assembled in the complex suggesting a different linkage between actin and adherens junctions components. The homodimeric form may regulate actin filament assembly and inhibit actin branching by competing with the Arp2/3 complex for binding to actin filaments. Involved in the regulation of WWTR1/TAZ, YAP1 and TGFB1- dependent SMAD2 and SMAD3 nuclear accumulation (By similarity). May play a crucial role in cell differentiation.

Cellular Location

Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:P26231}. Cell junction, adherens junction. Cell membrane {ECO:0000250|UniProtKB:P26231}; Peripheral membrane protein; Cytoplasmic side {ECO:0000250|UniProtKB:P26231}. Cell junction Cytoplasm {ECO:0000250|UniProtKB:Q9PVF8}. Nucleus. Note=Found at cell-cell boundaries and probably at cell-matrix boundaries. {ECO:0000250|UniProtKB:P26231}

Tissue Location

[Isoform 1]: Ubiquitously expressed in normal tissues.

Anti-CTNNA1 Picoband Antibody - Protocols

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

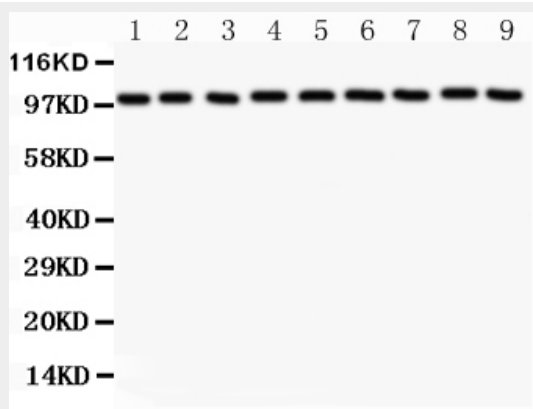
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)

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

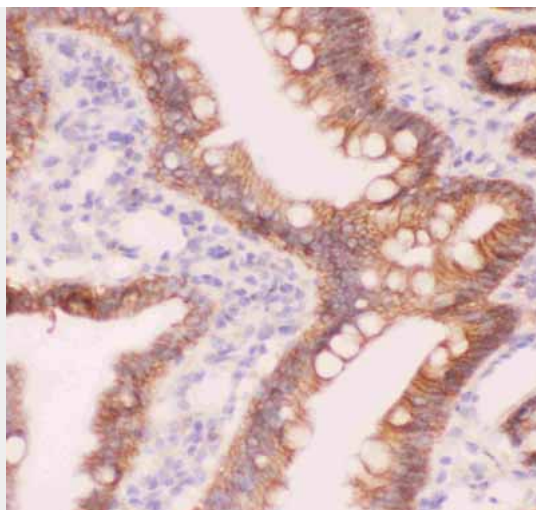
Anti-CTNNA1 Picoband Antibody - Images



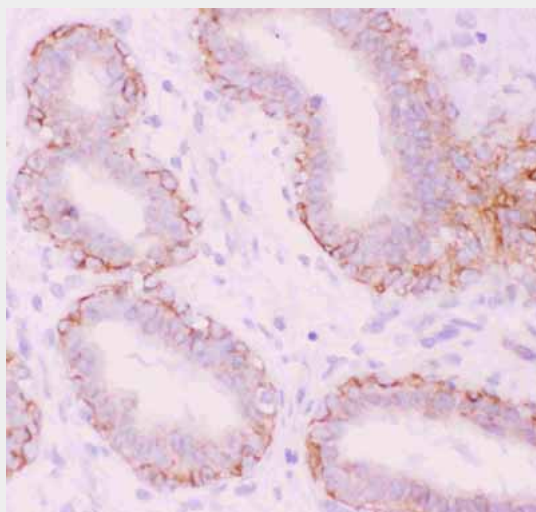
Anti-CTNNA1 Picoband antibody, ABO11838-1.jpg All lanes: Anti CTNNA1 (ABO11838) at 0.5ug/ml WB: Human Recombinant CTNNA1 Protein 0.5ng Predicted bind size: 47KD Observed bind size: 47KD



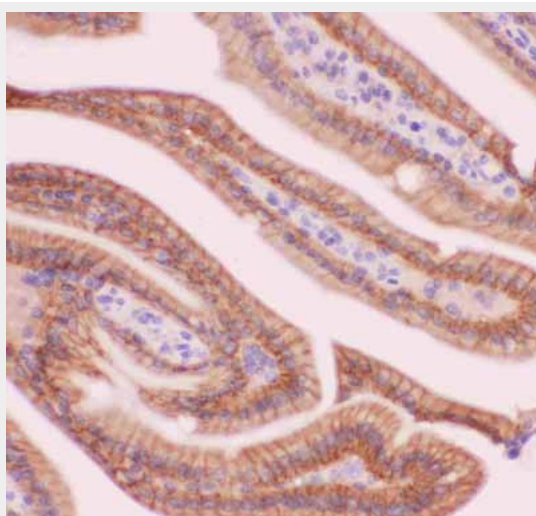
Anti-CTNNA1 Picoband antibody, ABO11838-2.jpg All lanes: Anti CTNNA1 (ABO11838) at 0.5ug/ml Lane 1: Rat Liver Tissue Lysate at 50ug Lane 2: Rat Lung Tissue Lysate at 50ug Lane 3: Rat Cardiac Muscle Tissue Lysate at 50ug Lane 4: NIH3T3 Whole Cell Lysate at 40ug Lane 5: PC-12 Whole Cell Lysate at 40ug Lane 6: HEPG2 Whole Cell Lysate at 40ug Lane 7: HELA Whole Cell Lysate at 40ug Lane 8: MCF-7 Whole Cell Lysate at 40ug Lane 9: HEPA Whole Cell Lysate at 40ug Predicted bind size: 100KD Observed bind size: 100KD



Anti-CTNNA1 Picoband antibody, ABO11838-3.JPGIHC(P): Rat Intestine Tissue



Anti-CTNNA1 Picoband antibody, ABO11838-4.JPGIHC(P): Human Mammary Tissue



Anti-CTNNA1 Picoband antibody, ABO11838-5.JPGIHC(P): Mouse Intestine Tissue

Anti-CTNNA1 Picoband Antibody - Background

CTNNA1, also known as Catenin alpha-1 or Catenin (cadherin-associated protein), alpha 1, is a protein that in humans is encoded by the CTNNA1 gene. It is mapped to 5q31.2. When surface epithelium CTNNA1 was ablated, hair follicle development was blocked and epidermal morphogenesis was dramatically affected, with defects in adherens junction formation, intercellular adhesion, and epithelial polarity. In vitro, CTNNA1 null keratinocytes were poorly contact inhibited and grew rapidly. These differences were not dependent upon intercellular adhesion and were in marked contrast to keratinocytes conditionally null for another essential intercellular adhesion protein, desmoplakin. Knockout keratinocytes exhibited sustained activation of the Ras-MAPK cascade due to aberrations in growth factor responses. It is concluded that features of precancerous lesions often attributed to defects in cell cycle regulatory genes can be generated by compromising the function of CTNNA1.