10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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 r˚Constitution, 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.

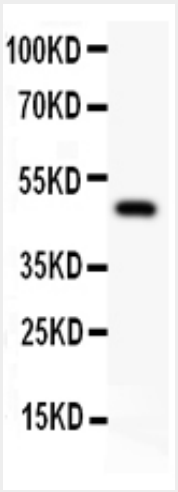
Anti-CTNNA1 Picoband Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry

- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-CTNNA1 Picoband Antibody - Images



Anti-CTNNA1 Picoband antibody, ABO11838-1.jpgAll lanes: Anti CTNNA1 (ABO11838) at 0.5ug/mlWB: Human Recombinant CTNNA1 Protein 0.5ngPredicted bind size: 47KDObserved bind size: 47KD

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

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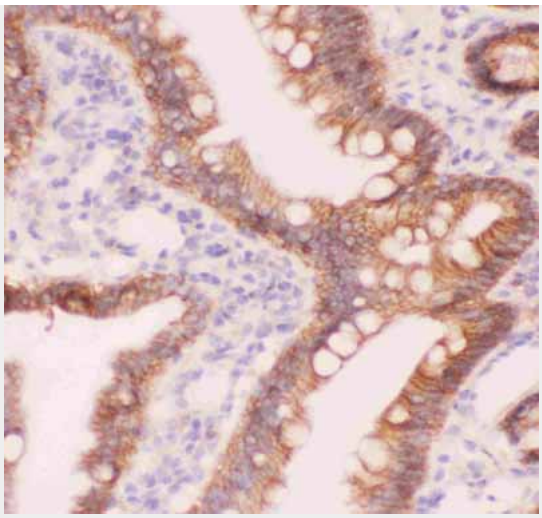
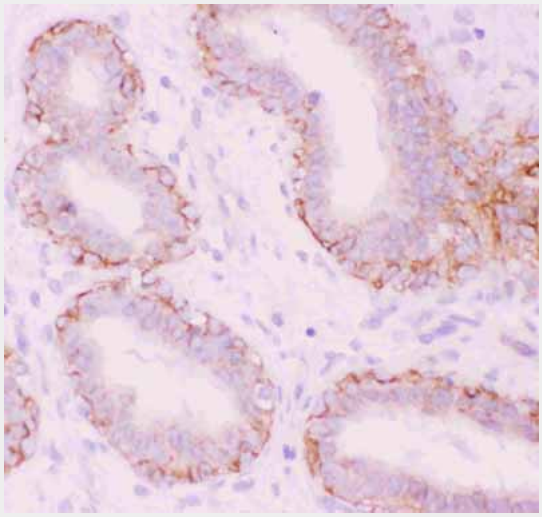
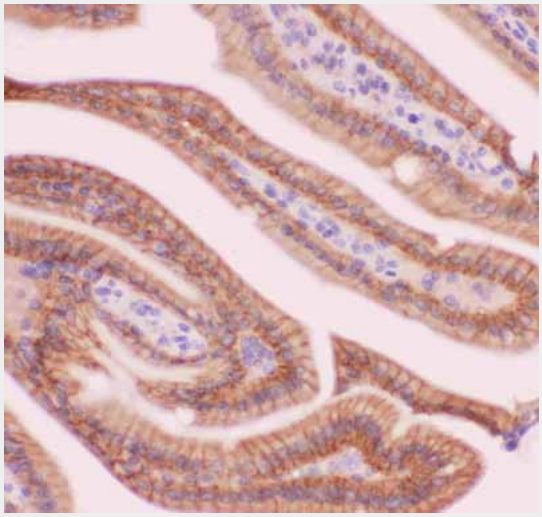


Anti-CTNNA1 Picoband antibody, ABO11838-3.JPGIHC(P): Rat Intestine Tissue



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.