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Anti-CTNNA1 Picoband Antibody

Catalog # ABO11838

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.

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
Application Details	Immunohistochemistry(Frozen Section), 0.5-1 □g/ml, Rat, - Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/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.
Source	Eukaryota
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.

Protein Information

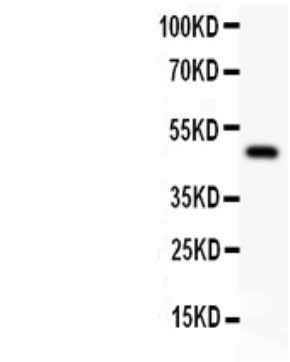
Name	CTNNA1 (HGNC:2509)
Function	Associates with the cytoplasmic domain of a variety of cadherins. The association of catenins to cadherins produces a complex which is linked to the actin filament network, and which seems to be of primary importance for cadherins cell-adhesion properties (PubMed:40983751). 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.

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.

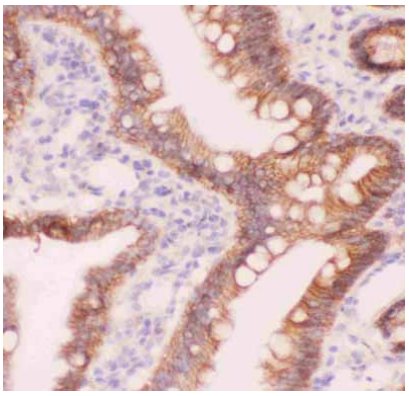
Images

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

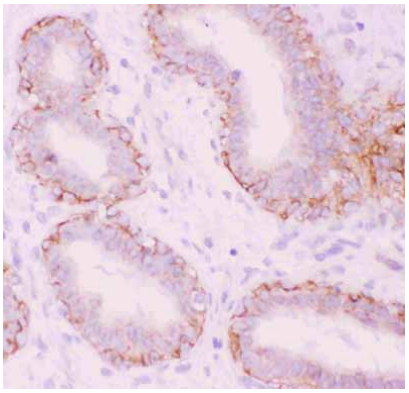


47KDObserved bind size: 47KD

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

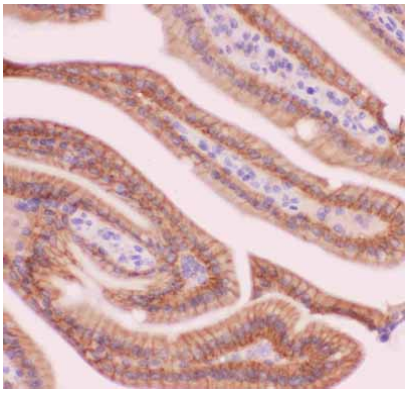


Anti-CTNNA1 Picoband antibody, ABO11838-3.JPGIHC(P): Rat Intestine Tissue



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

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



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