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KD-Validated Anti-Catenin alpha 1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1177

Specification

KD-Validated Anti-Catenin alpha 1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	P35221
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 100 kDa , observed, 100 kDa KDa**
Gene Name	**CTNNA1**
Aliases	**CTNNA1; Catenin Alpha 1; CAP102; Renal Carcinoma Antigen NY-REN-13; Alpha-E-Catenin; Catenin Alpha-1; Catenin (Cadherin-Associated Protein), Alpha 1 (102kD); Catenin (Cadherin-Associated Protein), Alpha 1, 102kDa; Epididymis Secretory Sperm Binding Protein; Cadherin-Associated Protein; Alpha E-Catenin; MDBS2; MDPT2**
Immunogen	**A synthesized peptide derived from human alpha 1 Catenin**

KD-Validated Anti-Catenin alpha 1 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**1495**

Other Names
Catenin alpha-1 {ECO:0000312|HGNC:HGNC:2509}, Alpha E-catenin {ECO:0000312|HGNC:HGNC:2509}, Cadherin-associated protein {ECO:0000312|HGNC:HGNC:2509}, Renal carcinoma antigen NY-REN-13, CTNNA1 (HGNC:2509)

KD-Validated Anti-Catenin alpha 1 Rabbit Monoclonal 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}

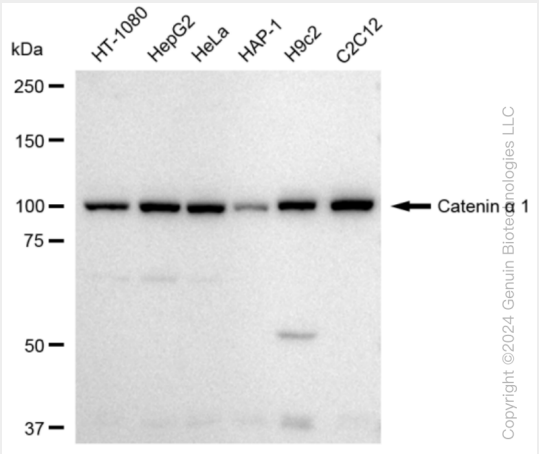
Tissue Location
[Isoform 1]: Ubiquitously expressed in normal tissues.

KD-Validated Anti-Catenin alpha 1 Rabbit Monoclonal 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

KD-Validated Anti-Catenin alpha 1 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-Catenin alpha 1 antibody (Cat#AGI1177). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Catenin alpha 1 antibody (Cat#AGI1177, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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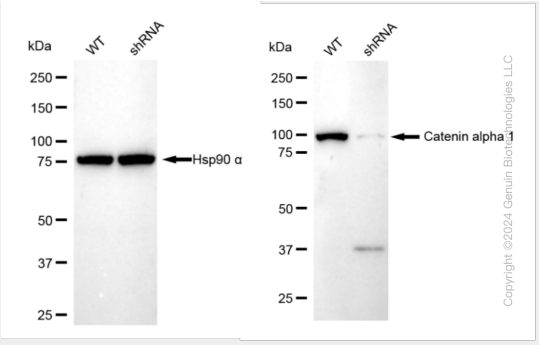
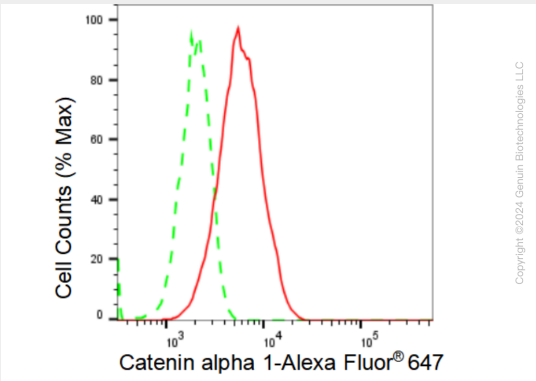
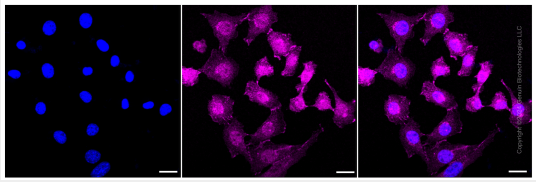


Western blotting analysis using anti-Catenin alpha 1 antibody (Cat#AGI1177). Catenin alpha 1 expression in wild type (WT) and Catenin alpha 1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-Catenin alpha 1 antibody (Cat#AGI1177, 1:20,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Catenin alpha 1 expression in C2C12 cells using Catenin alpha 1 antibody (Cat#AGI1177, 1:2,000). Green, isotype control; red, Catenin alpha 1.



Immunocytochemical staining of C2C12 cells with Catenin alpha 1 antibody (Cat#AGI1177, 1:1,000). Nuclei were stained blue with DAPI; Catenin alpha 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.