

Datasheet for ABIN967812
anti-CTNNA1 antibody (AA 729-906)



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Overview

Quantity:	50 µg
Target:	CTNNA1
Binding Specificity:	AA 729-906
Reactivity:	Human, Mouse, Rat, Dog, Chicken
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CTNNA1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	Mouse alpha-Catenin aa. 729-906
Clone:	5-a
Isotype:	IgG1
Cross-Reactivity:	Human, Chicken, Dog (Canine), Rat (Rattus)
Characteristics:	<ol style="list-style-type: none">1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.2. Please refer to us for technical protocols.3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification: The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target: CTNNA1

Alternative Name: alpha-Catenin ([CTNNA1 Products](#))

Background: The catenins (alpha-, beta-, and gamma-) are cytoplasmic proteins that bind to the highly conserved cytoplasmic tail of E-Cadherin. The cadherins, transmembrane adhesion molecules, are found with catenins at adherens junctions (zonula adherens). These junctions are critical for cell-cell adhesion, signal transmission between neighboring cells, and for the anchoring of the actin cytoskeleton. alpha-Catenin (CAP102) shows homology to vinculin, while beta-Catenin is similar to plakoglobin or the Drosophila armadillo gene product. alpha-Catenin was identified as an E-Cadherin-associated protein, however, it also appears to interact with other cadherin family members. There are at least two subtypes of alpha-Catenin: alphaE-Catenin and alphaN-Catenin. The predominant form is known as alphaE-Catenin. It is ubiquitously expressed, but at low levels in the nervous system. The expression of alphaN-Catenin is more restricted and this form predominates in the brain. Increased tyrosine phosphorylation of adherens junction proteins can disrupt catenin-cadherin complexes, leading to changes in cell adhesion properties. It has been noted that down-regulation of this group of proteins often precedes metastasis. In fact, data suggests a correlation between deletions within the alpha-Catenin gene and the development of prostate cancer. This antibody is routinely tested by western blot analysis.

Molecular Weight: 102 kDa

Pathways: [Regulation of Muscle Cell Differentiation](#), [Cell-Cell Junction Organization](#), [Maintenance of Protein Location](#)

Application Details

Comment: Related Products: ABIN968536, ABIN967389

Restrictions: For Research Use only

Handling

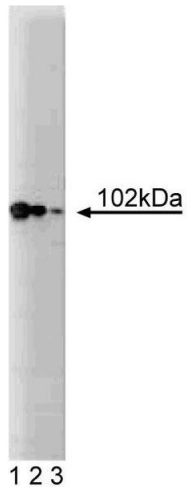
Format: Liquid

Handling

Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

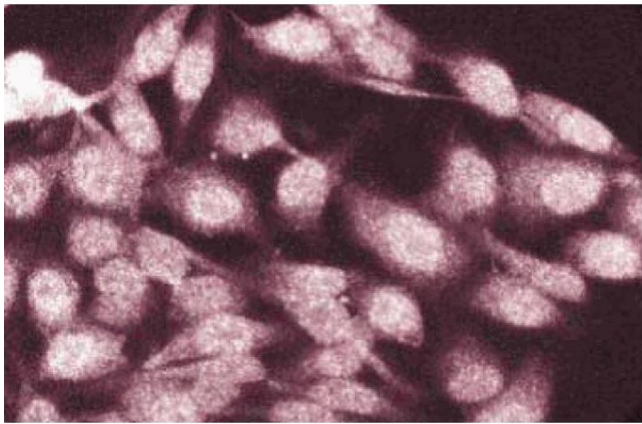
Publications

- Product cited in:
- Baki, Marambaud, Efthimiopoulos, Georgakopoulos, Wen, Cui, Shioi, Koo, Ozawa, Friedrich, Robakis: "Presenilin-1 binds cytoplasmic epithelial cadherin, inhibits cadherin/p120 association, and regulates stability and function of the cadherin/catenin adhesion complex." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 98, Issue 5, pp. 2381-6, (2001) ([PubMed](#)).
- Giannini, Vivanco, Kypta: "alpha-catenin inhibits beta-catenin signaling by preventing formation of a beta-catenin*T-cell factor*DNA complex." in: **The Journal of biological chemistry**, Vol. 275, Issue 29, pp. 21883-8, (2000) ([PubMed](#)).
- Huan, van Adelsberg: "Polycystin-1, the PKD1 gene product, is in a complex containing E-cadherin and the catenins." in: **The Journal of clinical investigation**, Vol. 104, Issue 10, pp. 1459-68, (1999) ([PubMed](#)).
- Herrenknecht, Ozawa, Eckerskorn, Lottspeich, Lenter, Kemler: "The uvomorulin-anchorage protein alpha catenin is a vinculin homologue." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 88, Issue 20, pp. 9156-60, (1991) ([PubMed](#)).



Western Blotting

Image 1. Western blot analysis of alpha-Catenin on a human endothelial cell lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the anti-alpha-Catenin antibody.



Immunofluorescence

Image 2. Immunofluorescence staining of HeLa cells.