



## Rabbit Anti-CTNNA1 antibody

SL1594R

<b>Product Name:</b>	CTNNA1
<b>Chinese Name:</b>	$\alpha$ -连环蛋白抗体
<b>Alias:</b>	alpha 1 Catenin; Alpha-Catenin; alpha catenin; alpha E catenin; alphaE catenin; Cadherin associated protein 102kDa; Cadherin associated protein; CAP 102; CAP102; Catenin (cadherin associated protein) alpha 1 102kDa; Catenin alpha 1; CTNNA 1; CTNNA1; Alpha-cats; FLJ36832; NY REN 13 antigen; CTNA1_HUMAN.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Chicken,Dog,Pig,Horse,Rabbit,
<b>Applications:</b>	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	102kDa
<b>Cellular localization:</b>	cytoplasmicThe cell membrane
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human Catenin:801-906/906
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	The distinct peripheral cytosolic proteins, alpha, beta and gamma-catenin (102, 94 and 86 kDa) found in many tissues bind to the conserved cytoplasmic tail domain of the cell-adhesion cadherins. Catenins link E-cadherin to other integral membrane or cytoplasmic proteins and are modulated by Wnt-1 proto-oncogene. They are good candidates for

mediating transduction of cell-cell contact positional signals to the cell interior. Absence of alpha-catenin is found in certain tumor cell lines and reduced levels in certain human carcinomas. Beta-catenin binds directly to the cytoplasmic tail of E-cadherin. It binds to the N-terminus of alpha-catenin and interacts with the protein product of the tumor suppressor gene APC. This interaction involves a 15-aa repeat in the APC. Beta-catenin cell levels seem to be controlled by APC. The central core region of beta-catenin is involved in mediation of cadherin-catenin complex interaction with EGFR.

**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. May play a crucial role in cell differentiation.

**Subunit:**

Monomer and homodimer; the monomer preferentially binds to CTNNB1 and the homodimer to actin. Binds MLLT4 and F-actin. Possible component of an E-cadherin/catenin adhesion complex together with E-cadherin/CDH1 and beta-catenin/CTNNB1 or gamma-catenin/JUP; the complex is located to adherens junctions. The stable association of CTNNA1 is controversial as CTNNA1 was shown not to bind to F-actin when assembled in the complex. Alternatively, the CTNNA1-containing complex may be linked to F-actin by other proteins such as LIMA1. Interacts with ARHGAP21 and with AJUBA. Interacts with LIMA1.

**Subcellular Location:**

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

**Tissue Specificity:**

Expressed ubiquitously in normal tissues.

**Post-translational modifications:**

Sumoylated.

**Similarity:**

Belongs to the vinculin/alpha-catenin family.

**SWISS:**  
P35221

**Gene ID:**  
1495

**Database links:**

[Entrez Gene: 1495](#)Human

[Entrez Gene: 12385](#)Mouse

[Entrez Gene: 307505](#)Rat

[Omim: 116805](#)Human

[SwissProt: P35221](#)Human

[SwissProt: P26231](#)Mouse

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

细胞粘附蛋白 (Cell Adhesion Protein)

$\alpha$ -catenin是一种多功能的蛋白质, 能链接E-N-P-

钙粘附分子, 具有参与细胞粘附和介导Signal

transduction的双重功能, 并与Tumour的发生发展及浸润密切相关。

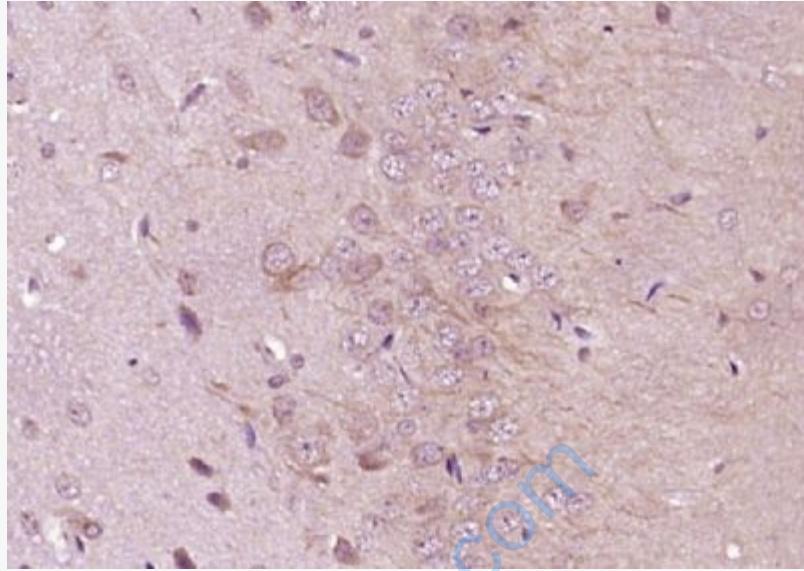
在正常个体中,  $\beta\alpha$ -

catenin和钙黏蛋白形成复合体, 介导同型细胞的粘附, 维持细胞的稳定; 同时,  $\alpha$ -

catenin作为Wnt/ $\alpha$ -catenin信号通路的关键成员在介导Signal

transduction过程中调控细胞的增殖和凋亡。

在恶性Tumour中,  $\alpha$ 连环蛋白的表达呈现明显的异质性, 促使细胞异常增殖, 还可使细胞之间的黏附性减弱, 侵袭性增强。



**Picture:**

Paraformaldehyde-fixed, paraffin embedded (rat brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CTNNA1) Polyclonal Antibody, Unconjugated (SL1594R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.