



## Rabbit Anti-CLSTN1 antibody

SL11644R

<b>Product Name:</b>	CLSTN1
<b>Chinese Name:</b>	老年痴呆相关类钙粘蛋白CS1抗体
<b>Alias:</b>	Calsyntenin 1; Alc alpha; Alc-alpha; Alcadin alpha 1; Alcadin alpha; Alcadin-alpha; alalpha1; alalpha2; Alzheimer related cadherin like protein; Alzheimer-related cadherin-like protein; Calsyntenin-1; Calsyntenin1; CLSTN 1; Clstn1; CS1; CSTN1; CSTN1_HUMAN; CTF1-alpha; FLJ32258; KIAA0911; Non classical cadherin XB31alpha; Non-classical cadherin XB31alpha; PIK3CD; SAlc-alpha; XB31alpha.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Dog,Pig,Rabbit,
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=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>	89/107kDa
<b>Cellular localization:</b>	The nucleuscytoplasmicThe cell membrane
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human Calsyntenin 1:501-600/981<Extracellular>
<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>	Members of the calsyntenin protein family are localized to the post-synaptic membrane of excitatory central nervous system (CNS) synapses. Calsyntenin-1, also known as

CSTN1, PIK3CD, Alzheimer-related cadherin-like protein, non-classical cadherin XB31alpha, KIAA0911, ALC-ALPHA, alcalpha1, alcalpha2 or FLJ32258, is a 981 amino acid single-pass type I membrane protein that localizes to the membrane of endoplasmic reticulum, Golgi apparatus, cell projections and postsynaptic cells. Expressed in brain, calsyntenin-1 is also found at lower levels in placenta, skeletal muscle, heart and kidney. Calyntenin-1 binds synaptic Ca<sup>2+</sup> with its cytoplasmic domain and plays a role in extracellular proteolysis. Calyntenin-1 is also known to form a complex with X11 Beta and APP to suppress the metabolic cleavage of APP, and docks vesicular cargo to KLC1. Calyntenin-1 may be related to the development or progression of Alzheimer's disease, and two calyntenin-1 isoforms are produced as a result of alternative splicing events.

**Function:**

Induces KLC1 association with vesicles and functions as a cargo in axonal anterograde transport. Complex formation with APBA2 and APP, stabilizes APP metabolism and enhances APBA2-mediated suppression of beta-APP40 secretion, due to the retardation of intracellular APP maturation. In complex with APBA2 and C99, a C-terminal APP fragment, abolishes C99 interaction with PSEN1 and thus APP C99 cleavage by gamma-secretase, most probably through stabilization of the direct interaction between APBA2 and APP. The intracellular fragment AlcICD suppresses APBB1-dependent transactivation stimulated by APP C-terminal intracellular fragment (AICD), most probably by competing with AICD for APBB1-binding. May modulate calcium-mediated postsynaptic signals.

**Subunit:**

Directly interacts with APBA2. Forms a tripartite complex with APBA2 and APP. The CTF1 chain interacts with PSEN1. The intracellular fragment AlcICD interacts with APBB1; this interaction stabilizes AlcICD metabolism. Interacts with KLC1 and APBB1

**Subcellular Location:**

Endoplasmic reticulum membrane. Golgi apparatus membrane. Cell projection. Cell junction > synapse > postsynaptic cell membrane. Nucleus. Neurite tips. Localized in the postsynaptic membrane of both excitatory and inhibitory synapses (By similarity). The AlcICD fragment is translocated to the nucleus upon interaction with APBB1.

**Tissue Specificity:**

Expressed in the brain and, a lower level, in the heart, skeletal muscle, kidney and placenta. Accumulates in dystrophic neurites around the amyloid core of Alzheimer disease senile plaques (at protein level).

**Post-translational modifications:**

Proteolytically processed under normal cellular conditions. A primary zeta-cleavage generates a large extracellular (soluble) N-terminal domain (sAlc) and a short C-terminal transmembrane fragment (CTF1). A secondary cleavage catalyzed by presenilin gamma-secretase within the transmembrane domain releases the beta-Alc-

alpha chain in the extracellular milieu and produces an intracellular fragment (A $\beta$ ICD). This processing is strongly suppressed in the tripartite complex formed with APBA2 and APP, which seems to prevent the association with PSEN1.

**Similarity:**

Contains 2 cadherin domains.

**SWISS:**

O94985

**Gene ID:**

22883

**Database links:**

[Entrez Gene: 22883](#) Human

[Entrez Gene: 65945](#) Mouse

[Omim: 611321](#) Human

[SwissProt: O94985](#) Human

[SwissProt: Q9EPL2](#) Mouse

[Unigene: 29665](#) Human

[Unigene: 38993](#) Mouse

**Important Note:**

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