

# **CLSTN1 Antibody (N-term) Blocking Peptide**

Synthetic peptide Catalog # BP18952a

## **Specification**

# CLSTN1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession <u>094985</u>

# CLSTN1 Antibody (N-term) Blocking Peptide - Additional Information

## **Gene ID 22883**

## **Other Names**

Calsyntenin-1, Alcadein-alpha, Alc-alpha, Alzheimer-related cadherin-like protein, Non-classical cadherin XB31alpha, Soluble Alc-alpha, SAlc-alpha, CTF1-alpha, C-terminal fragment 1-alpha, CLSTN1, CS1, KIAA0911

#### **Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

## **Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

# CLSTN1 Antibody (N-term) Blocking Peptide - Protein Information

## Name CLSTN1 (HGNC:17447)

### **Function**

Postsynaptic adhesion molecule that binds to presynaptic neurexins to mediate both excitatory and inhibitory synapse formation (By similarity). Promotes synapse development by acting as a cell adhesion molecule at the postsynaptic membrane, which associates with neurexin-alpha at the presynaptic membrane (By similarity). Also functions as a cargo in axonal anterograde transport by acting as a molecular adapter that promotes KLC1 association with vesicles (PubMed:<a href="http://www.uniprot.org/citations/21385839" target="\_blank">21385839</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/12972431" target="\_blank">12972431</a>).

## **Cellular Location**

Postsynaptic cell membrane {ECO:0000250|UniProtKB:Q9EPL2}; Single-pass type I membrane protein. Endoplasmic reticulum membrane; Single-pass type I membrane protein. Golgi apparatus membrane; Single-pass type I membrane protein. Cell projection, neuron projection. Note=Localized in the postsynaptic membrane of both excitatory and inhibitory synapses {ECO:0000250|UniProtKB:Q9EPL2}



#### **Tissue Location**

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).

## CLSTN1 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

## Blocking Peptides

CLSTN1 Antibody (N-term) Blocking Peptide - Images

# CLSTN1 Antibody (N-term) Blocking Peptide - Background

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 (By similarity).

## **CLSTN1 Antibody (N-term) Blocking Peptide - References**

Konecna, A., et al. Mol. Biol. Cell 17(8):3651-3663(2006)Wang, A.G., et al. Biochem. Biophys. Res. Commun. 345(3):1022-1032(2006)Araki, Y., et al. J. Biol. Chem. 279(23):24343-24354(2004)Schmitt-Ulms, G., et al. Nat. Biotechnol. 22(6):724-731(2004)Araki, Y., et al. J. Biol. Chem. 278(49):49448-49458(2003)