

CLSTN1 Recombinant Rabbit mAb

Catalog # AP99555

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	O94985
Other Accession	O94985
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Recombinant
Calculated MW	109793
Physical State	Liquid
Immunogen	A synthesized peptide derived from human Calsyntenin 1
Epitope Specificity	920-981/981
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	10mM phosphate buffered saline(pH 7.4) with 150mM sodium chloride, 0.05% BSA, 0.02% Proclin300 and 50% glycerol.
SIMILARITY	Contains 2 cadherin domains.
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
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 (AlcICD). This processing is strongly suppressed in the tripartite complex formed with APBA2 and APP, which seems to prevent the association with PSEN1.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Postsynaptic adhesion molecule that binds to presynaptic neuroligins to mediate both excitatory and inhibitory synapse formation. Promotes synapse development by acting as a cell adhesion molecule at the postsynaptic membrane, which associates with neuroligin-alpha at the presynaptic membrane.

Additional Information

Gene ID	22883
Other Names	ALC-ALPHA; CDHR12; CST-1; CSTN1; PIK3CD; XB31alpha; alcalpha1; alcalpha2; 1810034E21Rik; CSTN1_HUMAN; CLSTN1; Alcadin-alpha (Alc-alpha); Alzheimer-related cadherin-like protein; Non-classical cadherin XB31alpha; CS1; KIAA0911; CSTN1_MOUSE; calsyntenin 1; cadherin-related family

member 12

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1:50-100
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

Protein Information

Name	CLSTN1 (HGNC:17447)
Function	Postsynaptic adhesion molecule that binds to presynaptic neuroligins 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 neuroligin-1 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: 21385839). 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: 12972431).
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).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.