Datasheet for ABIN968805

anti-Nicastrin antibody (AA 168-289)

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Overview

Quantity:	50 µg
Target:	Nicastrin (NCSTN)
Binding Specificity:	AA 168-289
Reactivity:	Human, Mouse, Rat, Chicken, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Nicastrin antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Human Nicastrin aa. 168-289
Clone:	35-Nicastrin
Isotype:	IgG2a
Cross-Reactivity:	Chicken, Dog (Canine), Mouse (Murine), Rat (Rattus)
Characteristics:	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.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

	chromatography.

Target Details

Target:	Nicastrin (NCSTN)
Alternative Name:	Nicastrin (NCSTN Products)
Background:	Amyloid precursor protein (APP) gene encodes multiple APPs ranging from 695 to 770 amino acids. The unprocessed form of APP is a putative cell surface receptor that possesses neurite-promoting activity, and is involved in synaptic vesicle recycling. Processing of APP by sequential enzymatic activity of beta- and gamma-secretase, and the presenilin proteins PS1 and PS2, produces APP fragments that may have unique functions. beta-secretase activity cleaves the extracellular portion of APP leading to asecreted APP form, while gamma-secretase activity produces beta-Amyloid peptide (39-43 amino acids). The Abeta peptide produces abnormal plaques in the cerebral cortex and blood vesselwalls during Alzheimer's disease. Nicastrin is a PS1 associated transmembrane protein,that contains N-terminal glycosylation and myristoylation sites. Nicastrin can bind full length APP and the fragments produced by gamma-secretase. In C. elegans, suppression of nicastrin expression produces phenotypes that mimic those produced when notch signaling proteins are suppressed. In Drosophila, deficiencies in nicastrin prevent cleavage of the intracellular portion of Notch. Thus, nicastrin may be a functional component of presenilins and gamma-secretase complexes, which process Notch and APP transmembrane receptors.
Molecular Weight:	110 kDa
Pathways:	Notch Signaling, Neurotrophin Signaling Pathway

Application Details

Comment:	Related Products: ABIN967389, ABIN968553
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide

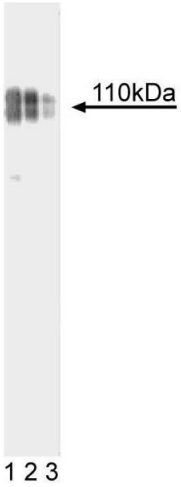
Handling

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:	Chen, Yu, Arawaka, Nishimura, Kawarai, Yu, Tandon, Supala, Song, Rogaeva, Milman, Sato, Yu, Janus, Lee, Song, Zhang, Fraser, St George-Hyslop: "Nicastrin binds to membrane-tethered Notch." in: **Nature cell biology**, Vol. 3, Issue 8, pp. 751-4, (2001) (PubMed). Yu, Nishimura, Arawaka, Levitan, Zhang, Tandon, Song, Rogaeva, Chen, Kawarai, Supala, Levesque, Yu, Yang, Holmes, Milman, Liang, Zhang, Xu, Sato, Rogaev, Smith, Janus, Zhang, Aebersold, Farrer, Sorbi et al.: "Nicastrin modulates presenilin-mediated notch/glp-1 signal transduction and betaAPP processing. ..." in: **Nature**, Vol. 407, Issue 6800, pp. 48-54, (2000) (PubMed).

Images



Western Blotting

Image 1. Western blot analysis of Nicastrin on WI-38 lysate. Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of Nicastrin.