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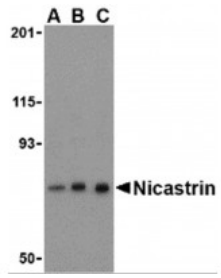
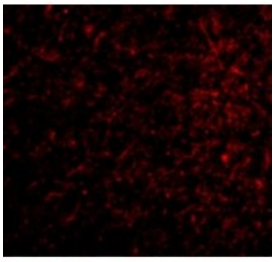
Nicastrin Antibody

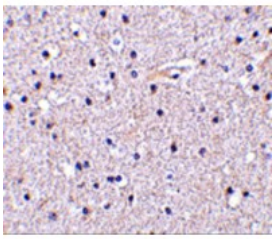
CATALOG NUMBER: 3983



Western blot analysis of Nicastrin in mouse brain tissue lysate with Nicastrin antibody at (A) 0.5, (B) 1, and (C) 2 ug/mL.



Immunofluorescence of Nicastrin in Human Brain cells with Nicastrin antibody at 20 ug/mL.



Immunohistochemistry of Nicastrin in human brain tissue with Nicastrin antibody at 5 ug/mL.

Specifications

SPECIES REACTIVITY:	Human, Mouse, Rat
TESTED APPLICATIONS:	ELISA, IF, IHC-P, WB
APPLICATIONS:	Nicastrin antibody can be used for detection of Nicastrin by Western blot at 0.5 - 2 ug/mL. Antibody can also be used for immunohistochemistry starting at 5 ug/mL. For immunofluorescence start at 20 ug/mL.
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
POSITIVE CONTROL:	1) Cat. No. 1403 - Mouse Brain Tissue Lysate
	2) Cat. No. 1303 - Human Brain Tissue Lysate
IMMUNOGEN:	Nicastrin antibody was raised against a 17 amino acid synthetic peptide from near the carboxy terminus of human Nicastrin. The immunogen is located within amino acids 630 - 680 of Nicastrin.
HOST SPECIES:	Rabbit

Properties

PURIFICATION:	Nicastrin Antibody is affinity chromatography purified via peptide column.
PHYSICAL STATE:	Liquid
BUFFER:	Nicastrin Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	Nicastrin antibody can be stored at 4˚C for three months and -20˚C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated

Additional Info

ALTERNATE NAMES:	Nicastrin Antibody: ATAG1874, KIAA0253, UNQ1874/PRO4317, Nicastrin

ACCESSION NO.:	NP_056146
PROTEIN GI NO.:	24638433
OFFICIAL SYMBOL:	NCSTN
GENE ID:	23385

Background

BACKGROUND:	Nicastrin Antibody: Nicastrin, in addition to presenilin, PEN2, and APH-1 forms the gamma-secretase protein complex, a membrane-bound aspartyl protease that can cleave certain proteins at peptide bonds buried within the hydrophobic environment of the lipid bilayer. This cleavage is responsible for a key step in signaling from several cell-surface receptors and is thought to be required for the generation of the neurotoxic amyloid peptides that are central to the pathogenesis of Alzheimer's disease. Like the tumor necrosis factor-a-converting enzyme (TACE) and the b-site cleavage enzyme (BACE) protease families, gamma-secretase will cleave the amyloid precursor protein (APP), but within the intramembrane region of APP, resulting in either the non-toxic p3 (from the alpha and gamma cleavage site) or the toxic Abeta amyloid peptide (from the beta and gamma cleavage site). It is thought that accumulation of the Abeta peptide is the precursor to Alzheimer's disease. Nicastrin is also thought to be involved in cell proliferation and signaling, especially in regards to activation of Notch receptors as loss of Nicastrin expression results in mouse embryonic lethality.
REFERENCES:	1) Weihofen A and Martoglio B. Intramembrane-cleaving proteases: controlled liberation of proteins and bioactive peptides. Trends Cell Biol. 2003; 13:71-8.
	2) Periz G and Fortini ME. Functional reconstitution of g-secretase through coordinated expression of presenilin, nicastrin, aph-1, and pen-2. J. Neurosci. Res. 2004; 77:309-22.
	3) Selkoe DJ. The cell biology of b-amyloid precursor protein and presenilin in Alzheimer’s disease. Trends Cell Biol. 1998; 8:447-53.
	4) Nguyen V, Hawkins C, Bergeron C, et al. Loss of nicastrin elicits an apoptotic phenotype in mouse embryos. Brain Res. 2006; 1086:76-84.

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December 12, 2016