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Datasheet for 600-401-DB2

Nicastrin Antibody

Overview

Description:	Anti-Nicastrin (RABBIT) Antibody - 600-401-DB2
Item No.:	600-401-DB2
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	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-alpha-converting enzyme (TACE) and the beta-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.
Synonyms:	Nicastrin Antibody, ATAG1874, KIAA0253, UNQ1874/PRO4317, Nicastrin, NCSTN
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	NCSTN
Reactivity:	Human, Mouse, Rat

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-Nicastrin antibody was prepared from whole rabbit serum produced by repeated immunizations with a 18 amino acid synthetic peptide from near the internal region of human Nicastrin.
Purity/Specificity:	Anti-Nicastrin Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with Nicastrin from other sources has not been determined.
Relevant Links:	• UniProtKB - Q92542 • GeneID - 23385 • NCBI - NP_056146

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-Nicastrin Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 78 kDa in Western Blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5,000 - 1:10,000
IF:	20 µg/mL
IHC:	2.5 µg/mL
WB:	.5-1 µg/mL

Formulation

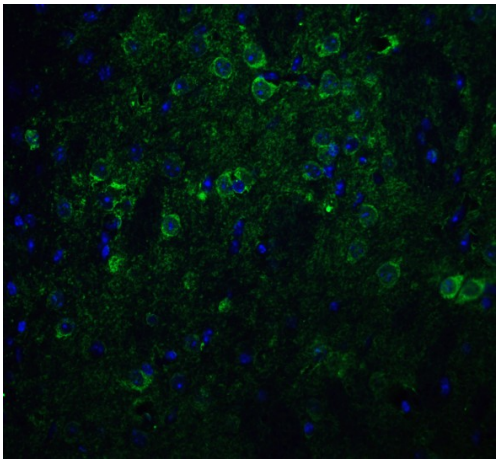
Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

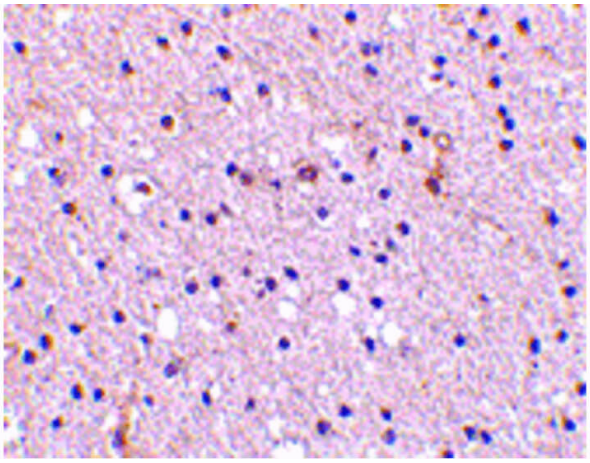
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

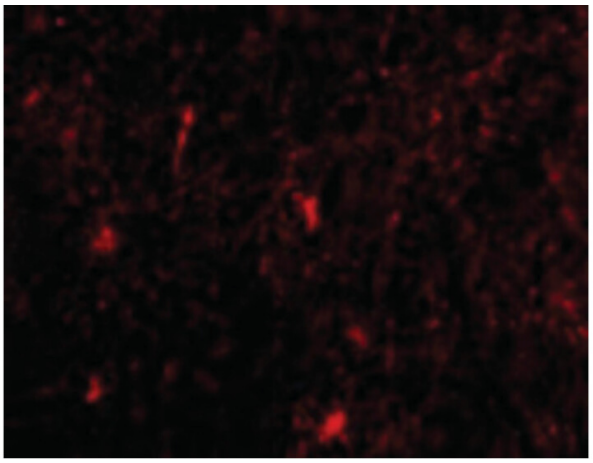
Images



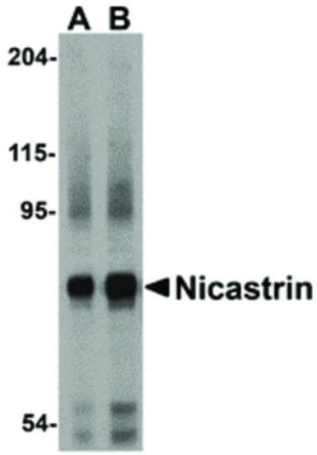
Immunofluorescence Microscopy
Immunofluorescence of Nicastrin in mouse brain tissue with Nicastrin antibody at 20 µg/ml.
Green: Nicastrin Antibody.
Blue: DAPI staining.



Immunohistochemistry
Immunohistochemistry of Nicastrin antibody. Tissue: human brain tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Nicastrin antibody at 2.5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: Nicastrin is located in the cell membrane. Staining: Nicastrin is stained with hematoxylin purple nuclear counterstain.



Immunofluorescence Microscopy
Immunofluorescence Microscopy of Nicastrin antibody. Cell Type: human brain cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: Nicastrin antibody at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: Nicastrin is located in the cell membrane. Staining: Nicastrin as red fluorescent signal.



Western Blot
Western Blot of Nicastrin antibody in human brain tissue lysate. Lane A: Nicastrin antibody at 0.5 µg/mL. Lane B: Nicastrin antibody at 1 µg/mL. Load: 35 µg per lane. Primary antibody: Nicastrin antibody at designated concentrations for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 78 kDa, 72 kDa for Nicastrin. Other band(s): Nicastrin splice variants and isoforms.

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