

## Anti-Nicastrin NCSTN Antibody

Catalog Number: A03144

### About NCSTN

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 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.

### Overview

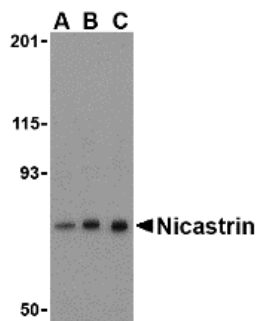
Product Name	Anti-Nicastrin NCSTN Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Nicastrin NCSTN Antibody (Catalog # A03144). Tested in ELISA, WB, IHC-P, IF applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IF, IHC-P, WB
Clonality	Polyclonal
Formulation	Nicastrin Antibody is supplied in PBS containing 0.02% sodium azide.
Storage Instructions	Nicastrin antibody can be stored at 4°C for three months and -20°C, stable for up to one year. Avoid repeated freeze-thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Host	Rabbit
Uniprot ID	Q92542

### Technical Details

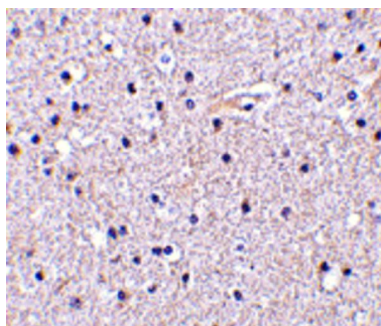
Immunogen	Nicastrin antibody was raised against a 17 amino acid synthetic peptide from near the carboxy terminus of human Nicastrin. The immunogen is located within amino acids 630 - 680 of Nicastrin.
Predicted Reactive Species	Bovine, Rat
Cross Reactivity	At least four isoforms of ATP2C1 are known to exist; this antibody will recognize only the three longest isoforms. ATP2C1 antibody will not cross-react with ATP2C2.
Isotype	IgG
Form	Liquid

Concentration	1 mg/mL
Purification	Nicastrin Antibody is affinity chromatography purified via peptide column.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>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.</p> <p>Antibody validated: Western Blot in mouse samples; Immunohistochemistry in human samples and Immunofluorescence in human samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher.</p>

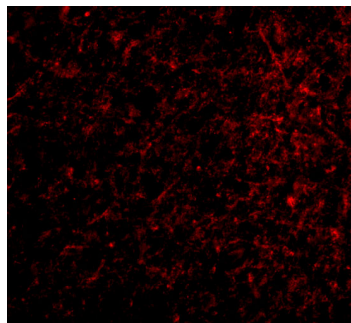
## Anti-Nicastrin NCSTN Antibody (A03144) Images



Western blot analysis of Nicastrin in mouse brain tissue lysate with Nicastrin antibody at (A) 0.5



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



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

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