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Product datasheet for TA306369

Nicastrin (NCSTN) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 0.5 - 2 ug/mL, ICC: 5 ug/mL, IF: 20 ug/mL
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Nicastrin antibody was raised against a 17 amino acid peptide from near the carboxy terminus of human Nicastrin.
Formulation:	PBS containing 0.02% sodium azide.
Concentration:	1ug/ul
Purification:	Affinity chromatography purified via peptide column
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	nicastrin
Database Link:	NP_056146 Entrez Gene 59287 MouseEntrez Gene 289231 RatEntrez Gene 23385 Human Q92542

View online »

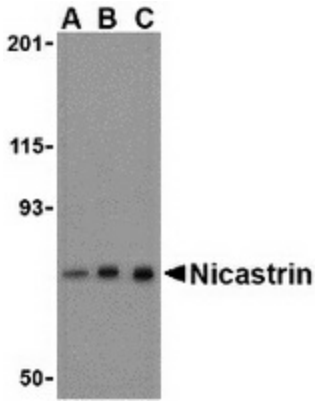
Background: Nicastrin, in addition to presenilin, PEN2, and APH-1 forms the gamma-secretase protein complex, a membrane-bound aspartyl protease that can cleave certain proteins at peptide bonds buried within the hydrophobic environment of the lipid bilayer. This cleavage is responsible for a key step 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-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.

Synonyms: ATAG1874

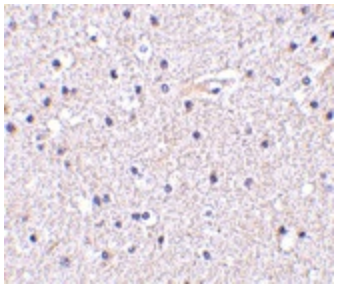
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Alzheimer's disease, Notch signaling pathway

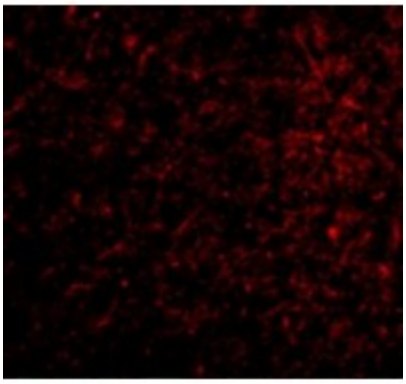
Product images:



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



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.