



### Anti-Nicastrin antibody ab3444

[4 References](#) [3 Images](#)

#### Overview

<b>Product name</b>	Anti-Nicastrin antibody
<b>Description</b>	Rabbit polyclonal to Nicastrin
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide corresponding to Human Nicastrin aa 650-750. <a href="#">Run BLAST with</a>  <a href="#">Run BLAST with</a> 
<b>Positive control</b>	WB: T98G, RSC96, mouse neuronal cells, HeLa, IMR-32, NIH/3T3, L6, mouse brain, rat brain
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 99% PBS
<b>Purity</b>	Immunogen affinity purified
<b>Primary antibody notes</b>	Amyloid beta peptide is the major constituent of amyloid plaques in the brains of individuals afflicted with Alzheimer's disease. This peptide is generated from the beta-amyloid precursor protein (beta APP) in a two-step process. The first step involves cleavage of the extracellular, amino-terminal domain of beta APP. Protein cleavage is performed by an aspartyl protease termed beta-secretase (BACE). This enzyme is synthesized as a propeptide that must be modified to the mature and active form by the prohormone convertase, furin. Beta APP cleavage by the mature form of BACE results in the cellular secretion of a segment of beta APP and a

membrane-bound remnant. This remnant is then processed by another protease termed gamma-secretase. Gamma-secretase cleaves an intra-membrane site in the carboxyl-terminal domain of beta APP, thus generating the amyloid beta peptide. Gamma-secretase is believed to be a multi-subunit complex containing presenilin-1 and 2 as central components. Found associated with the presenilins is the transmembrane glycoprotein nicastrin. Nicastrin has been found to bind to the carboxyl-terminus of beta APP and helps to modulate the production of the amyloid beta peptide. Also found in the neurofibrillary lesions associated with Alzheimer's disease is a protein termed Tau. Tau is a neuronal microtubule-associated protein found predominantly on axons. Tau functions to promote tubulin polymerization and stabilize microtubules. Tau, in its hyperphosphorylated form, is the major constituent of paired helical filaments (PHF), which are the building block of neurofibrillary lesions found in brain tissue of Alzheimer's diseased patients.

#### Clonality

Polyclonal

#### Isotype

IgG

### Applications

#### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab3444 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 1 - 2 µg/ml. Detects a band of approximately 110 kDa (predicted molecular weight: 78 kDa).

### Target

#### Function

Essential subunit of the gamma-secretase complex, an endoprotease complex that catalyzes the intramembrane cleavage of integral membrane proteins such as Notch receptors and APP (beta-amyloid precursor protein). It probably represents a stabilizing cofactor required for the assembly of the gamma-secretase complex.

#### Tissue specificity

Widely expressed.

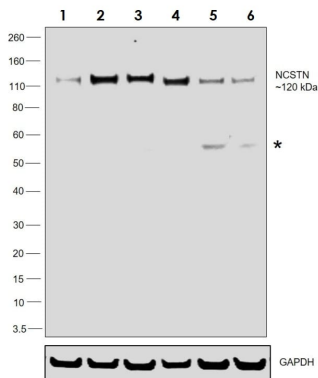
#### Sequence similarities

Belongs to the nicastrin family.

#### Cellular localization

Membrane. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

### Images



Western blot - Anti-Nicastrin antibody (ab3444)

**All lanes :** Anti-Nicastrin antibody (ab3444) at 1 µg/ml

**Lane 1 :** HeLa whole cell extract

**Lane 2 :** IMR-32 whole cell extract (human neuroblastoma cell line)

**Lane 3 :** NIH/3T3 whole cell extract (mouse embryo fibroblast cell line)

**Lane 4 :** L6 whole cell extract (Rat skeletal muscle cell line)

**Lane 5 :** mouse brain

**Lane 6 :** rat brain

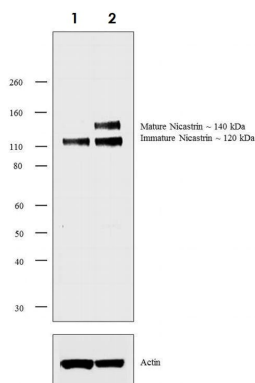
Lysates/proteins at 60 µg per lane.

#### Secondary

**All lanes :** Goat anti-Rabbit IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP at 1/4000 dilution

Developed using the ECL technique.

**Predicted band size:** 78 kDa



Western blot - Anti-Nicastrin antibody (ab3444)

**All lanes :** Anti-Nicastrin antibody (ab3444) at 2 µg/ml

**Lane 1 :** T98G membrane extract (Human glioblastoma cell line)

**Lane 2 :** RSC96 membrane extract (spontaneously immortalized rat Schwann cell line )

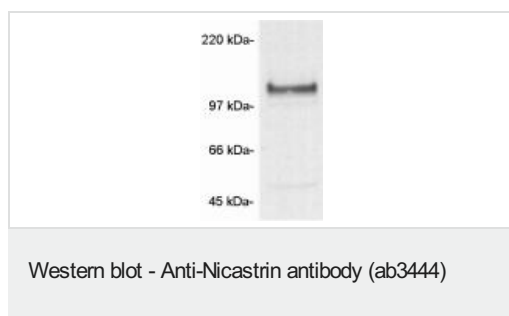
Lysates/proteins at 30 µg per lane.

#### Secondary

**All lanes :** Goat anti-Rabbit IgG (H+L) Superclonal™ Secondary Antibody, HRP conjugate at 1/4000 dilution

Developed using the ECL technique.

**Predicted band size:** 78 kDa



Western blot detection of Nicastrin on mouse primary cultured neuronal cells using ab3444.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

### Our Abpromise to you: Quality guaranteed and expert technical support

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