

Anti-Nicastrin/NCSTN Antibody Picoband™

Catalog Number: A03144-1

About NCSTN

Nicastrin, also known as NCSTN, is a protein that is a part of the gamma secretase protein complex. It is mapped to 1q23.2. This gene is not catalytically active, but instead promotes the maturation and proper trafficking of the other proteins in the gamma secretase protein complex, all of which undergo significant post-translational modification before becoming active in the cell. NCSTN encodes a Type I transmembrane glycoprotein that is an integral component of the multimeric gamma-secretase complex. The encoded protein cleaves integral membrane proteins, including Notch receptors and beta-amyloid precursor protein, and may be a stabilizing cofactor required for gamma-secretase complex assembly. The cleavage of beta-amyloid precursor protein yields amyloid beta peptide, the main component of the neuritic plaque and the hallmark lesion in the brains of patients with Alzheimer's disease. Nicastrin has also been identified as a regulator of neprilysin, an enzyme involved in the degradation of amyloid beta fragment.

Overview

Product Name	Anti-Nicastrin/NCSTN Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-heavy chain Nicastrin/NCSTN Antibody Picoband™ catalog # A03144-1. Tested in ELISA, IF, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	Q92542

Technical Details

Immunogen	E.coli-derived human Nicastrin/NCSTN recombinant protein (Position: N34-E669).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Direct ELISA, 0.1-0.5 ug/ml, Human

Anti-Nicastrin/NCSTN Antibody Picoband™ (A03144-1) Images

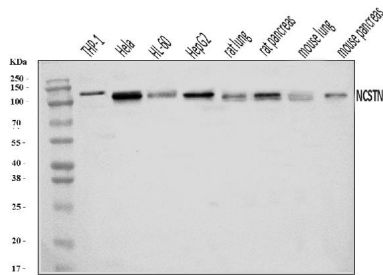


Figure 1. Western blot analysis of Nicastrin/NCSTN using anti-Nicastrin/NCSTN antibody (A03144-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human THP-1 whole cell lysates,
Lane 2: human Hela whole cell lysates,
Lane 3: human HL-60 whole cell lysates,
Lane 4: human HepG2 whole cell lysates,
Lane 5: rat lung tissue lysates,
Lane 6: rat pancreas tissue lysates,
Lane 7: mouse lung tissue lysates,
Lane 8: mouse pancreas tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Nicastrin/NCSTN antigen affinity purified polyclonal antibody (Catalog # A03144-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Nicastrin/NCSTN at approximately 120 kDa. The expected band size for Nicastrin/NCSTN is at 120 kDa.

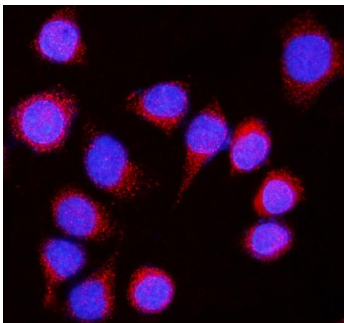


Figure 2. IF analysis of Nicastrin/NCSTN using anti-Nicastrin/NCSTN antibody (A03144-1). Nicastrin/NCSTN was detected in an immunocytochemical section of SiHa cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-Nicastrin/NCSTN Antibody (A03144-1) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

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