BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Reticulon-3 RTN3 Antibody Picoband®

Catalog Number: PA2256

About RTN3

Reticulon-3, also known as RTN3 or NSPL2, is a protein that in humans is encoded by the RTN3 gene. It is mapped to 11q13, which is between markers D11S4535 and D11S4627. This gene belongs to the reticulon family of highly conserved genes that are preferentially expressed in neuroendocrine tissues. This family of proteins interact with, and modulate the activity of beta-amyloid converting enzyme 1 (BACE1), and the production of amyloid-beta. RTN3 colocalized with BACE1 in neurons of human brain gray matter, and overexpression of RTN3 in vitro inhibited BACE1 activity and decreased amyloid precursor protein processing.

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Overview

Product Name	Anti-Reticulon-3 RTN3 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Reticulon-3 RTN3 Antibody catalog # PA2256. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Storage Instructions	Store 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 freeze-thaw cycles.
Host	Rabbit
Uniprot ID	O95197

Technical Details

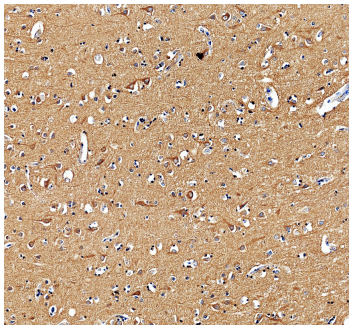
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human RTN3, identical to the related mouse and rat sequences.

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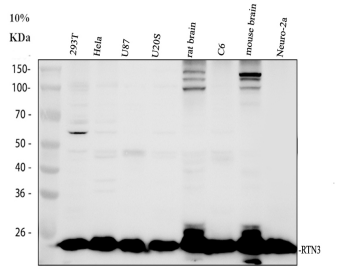
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends ECL Plus Western Blotting Substrate (Catalog # AR1196-200) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross reactivity with other proteins
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5 ug/ml, Human, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human

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Anti-Reticulon-3 RTN3 Antibody Picoband® (PA2256) Images



IHC analysis of RTN3 using anti-RTN3 antibody (PA2256). RTN3 was detected in a paraffin-embedded section of human brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-RTN3 Antibody (PA2256) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



Western blot analysis of RTN3 using anti-RTN3 antibody (PA2256). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (StacRTN3g gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human 293T whole cell lysates, Lane 2: human HeLa whole cell lysates, Lane 3: human U87 whole cell lysates, Lane 4: human U2OS whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat C6 whole cell lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse Neuro-2a whole cell 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-RTN3 antigen affinity purified polyclonal antibody (PA2256) 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for RTN3 at approximately 25 kDa. The expected band size for RTN3 is at 113, 24-28 kDa.

3 Publications Citing This Product

1. PubMed ID: 10.1038/s41467-021-26225-8, PGRMC1 acts as a size-selective cargo receptor to drive ER-phagic clearance of mutant prohormones

2. PubMed ID: , Cells Deploy a Two-Pronged Strategy to Rectify Misfolded Proinsulin Aggregates

3. PubMed ID: 33823883, Lim Y,Kim S,Kim EK.Palmitate reduces starvation-induced ER stress by inhibiting ER-phagy in hypothalamic cells.Mol Brain.2021 Apr 6;14(1):65.doi:10.1186/s13041-021-00777-8.PMID:33823883.

Visit bosterbio.com/anti-rtn3-antibody-pa2256-boster.html to see all 3 publications.

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For Research Use Only. Not for use in diagnostic procedures.