

Anti-Nogo A/RTN4 Antibody Picoband®

Catalog Number: A01844-2

About RTN4

Human neurite outgrowth inhibitor (NOGO) cDNAs encodes 3 splice variants: NOGOA, NOGOB and NOGOC. The longest cDNA, designated NOGOA, has an open reading frame of 1192 amino acids. It is a potent inhibitor of neurite growth and an IN-1 antigen produced by oligodendrocytes, and may allow the generation of new reagents to enhance CNS regeneration and plasticity. Nogo-A, a member of the Reticulon family, is expressed by oligodendrocytes and associates primarily with the endoplasmic reticulum. The acidic amino terminus of Nogo-A is detected at the cytosolic face of cellular membranes and may contribute to inhibition of axon regeneration at sites of oligodendrocyte injury. A multivalent form of the N terminus of Nogo-A affects the morphology of both neurons and other cell types.

Overview

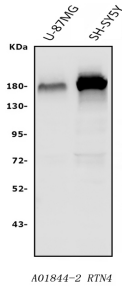
Product Name	Anti-Nogo A/RTN4 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Nogo A/RTN4 Antibody Picoband® catalog # A01844-2. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that 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	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.01mg NaN ₃ .
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	Q9NQ3

Technical Details

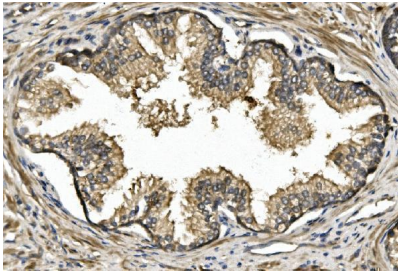
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Nogo A/RTN4.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and 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	Western blot, 0.1-0.25ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, human Immunocytochemistry/Immunofluorescence, 4ug/ml, Human Immunofluorescence, 4ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human

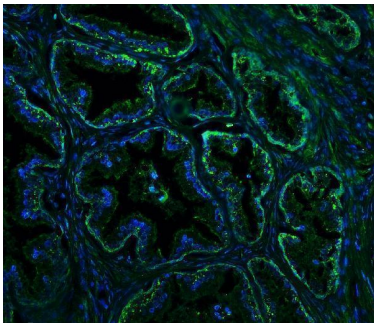
Anti-Nogo A/RTN4 Antibody Picoband® (A01844-2) Images



Western blot analysis of Nogo A/RTN4 using anti-Nogo A/RTN4 antibody (A01844-2). 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 50ug of sample under reducing conditions. Lane 1: human U-87MG whole cell lysates, Lane 2: human SH-SY5Y whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-Nogo A/RTN4 antigen affinity purified polyclonal antibody (Catalog # A01844-2) at 0.25 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 1:10000 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 Nogo A/RTN4 at approximately 180KD. The expected band size for Nogo A/RTN4 is at 180KD.

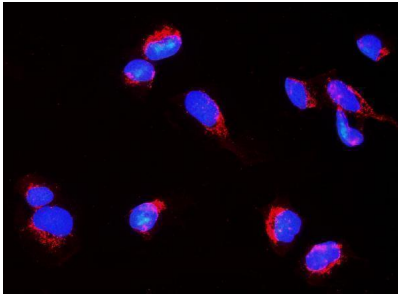


IHC analysis of Nogo A/RTN4 using anti-Nogo A/RTN4 antibody (A01844-2). Nogo A/RTN4 was detected in paraffin-embedded section of human prostatic cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Nogo A/RTN4 Antibody (A01844-2) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

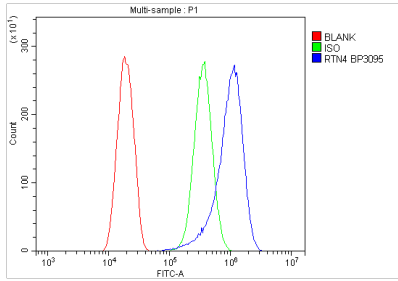


IF analysis of Nogo A/RTN4 using anti-Nogo A/RTN4 antibody (A01844-2). Nogo A/RTN4 was detected in paraffin-embedded section of human prostatic cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 4ug/mL rabbit anti-Nogo A/RTN4 Antibody (A01844-2) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) 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.

IF analysis of Nogo A/RTN4 using anti-Nogo A/RTN4 antibody (A01844-2). Nogo A/RTN4 was detected in immunocytochemical section of U2OS 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 4ug/mL rabbit anti-Nogo A/RTN4 Antibody (A01844-2) 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.



Flow Cytometry analysis of SiHa cells using anti-Nogo A/RTN4 antibody (A01844-2). Overlay histogram showing SiHa cells stained with A01844-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Nogo A/RTN4 Antibody (A01844-2, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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Anti-Nogo A/RTN4 Antibody

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