

## Anti-Niemann Pick C2/NPC2 Antibody Picoband™

Catalog Number: A01582-2

### About NPC2

NPC2 is a protein associated with Niemann-Pick disease, type C. This gene is mapped to chromosome 14q24.3. It encodes a protein containing a lipid recognition domain. The encoded protein may function in regulating the transport of cholesterol through the late endosomal/lysosomal system. Mutations in this gene have been associated with Niemann-Pick disease, type C2 and frontal lobe atrophy.

### Overview

Product Name	Anti-Niemann Pick C2/NPC2 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-Niemann Pick C2/NPC2 Antibody Picoband™ catalog # A01582-2. Tested in IHC, WB applications. This antibody reacts with Human.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg NaN <sub>3</sub> .
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	P61916

### Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Niemann Pick C2, which shares 79.4% and 76.5% amino acid (aa) sequence identity with mouse and rat Niemann Pick C2, respectively.
Predicted Reactive Species	Human
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).
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.

#### 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, 0.1-0.5ug/ml

Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml

## Anti-Niemann Pick C2/NPC2 Antibody Picoband™ (A01582-2) Images

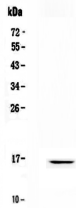


Figure 1. Western blot analysis of Niemann Pick C2 using anti-Niemann Pick C2 antibody (A01582-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human SK-OV-3 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-Niemann Pick C2 antigen affinity purified polyclonal antibody (Catalog # A01582-2) 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 1:10000 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 Niemann Pick C2 at approximately 16KD. The expected band size for Niemann Pick C2 is at 16KD.

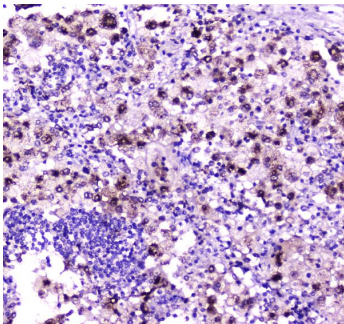


Figure 2. IHC analysis of Niemann Pick C2 using anti-Niemann Pick C2 antibody (A01582-2). Niemann Pick C2 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Niemann Pick C2 Antibody (A01582-2) 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.

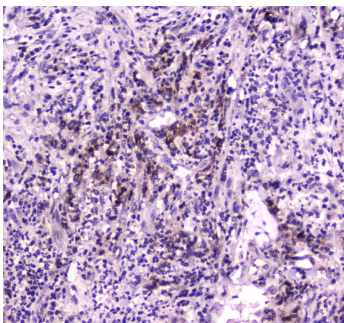


Figure 3. IHC analysis of Niemann Pick C2 using anti-Niemann Pick C2 antibody (A01582-2). Niemann Pick C2 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Niemann Pick C2 Antibody (A01582-2) 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.

1. PubMed ID: 10.1038/s41401-021-00724-2, Identification of pimavanserin tartrate as a potent Ca<sup>2+</sup>-calcineurin-NFAT pathway inhibitor for glioblastoma therapy

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