

Anti-Neurocan/NCAN Antibody Picoband™

Catalog Number: A06700-1

About NCAN

Neurocan core protein is a protein that in humans is encoded by the NCAN gene. Neurocan is a member of the lectican / chondroitin sulfate proteoglycan protein families and consists of neurocan core protein and chondroitin sulfate. It is thought to be involved in the modulation of cell adhesion and migration. In the human subjects, it was found that NCAN genotype was strongly associated with manic symptoms but not with depressive symptoms. In the mice, the absence of functional Neurocan resulted in a variety of manic-like behaviors, which could be normalized by administering lithium.

Overview

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| Product Name | Anti-Neurocan/NCAN Antibody Picoband™ |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-Neurocan/NCAN Antibody Picoband™ catalog # A06700-1. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat. |
| Application | IHC, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3. |
| 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 | NCAN: O14594 |

Technical Details

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|-------------------------------|--|
| Immunogen | A synthetic peptide corresponding to a sequence at the C-terminus of human Neurocan, which shares 90% amino acid (aa) sequence identity with both mouse and rat Neurocan. |
| 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. |
| 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, 0.1-0.5ug/ml

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

Anti-Neurocan/NCAN Antibody Picoband™ (A06700-1) Images

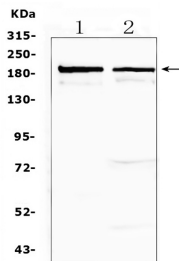


Figure 1. Western blot analysis of Neurocan using anti-Neurocan antibody (A06700-1).

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 50ug of sample under reducing conditions.

Lane 1: rat brain tissue lysates,

Lane 2: rat testis tissue 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-Neurocan antigen affinity purified polyclonal antibody (Catalog # A06700-1) at 0.5 ug/mL overnight at 4 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 Neurocan at approximately 200KD. The expected band size for Neurocan is at 143KD.

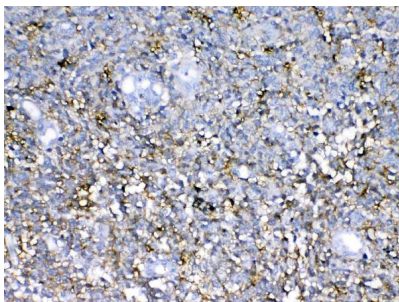


Figure 2. IHC analysis of Neurocan using anti-Neurocan antibody (A06700-1).

Neurocan was detected in paraffin-embedded section of human glioma 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 1ug/ml rabbit anti-Neurocan Antibody (A06700-1) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

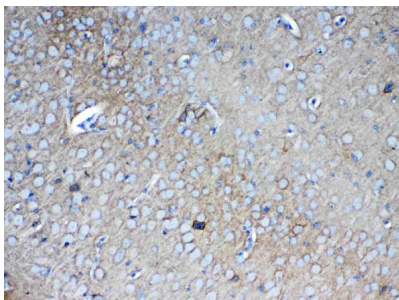


Figure 3. IHC analysis of Neurocan using anti-Neurocan antibody (A06700-1).

Neurocan was detected in paraffin-embedded section of mouse brain 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 1ug/ml rabbit anti-Neurocan Antibody (A06700-1) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

1. PubMed ID: 22629422, Wang R, Zhang X, Zhang J, Fan Y, Shen Y, Hu W, Chen Z. Plos One. 2012;7(5):E37574. Doi: 10.1371/Journal.Pone.0037574. Epub 2012 May 22. Oxygen-Glucose Deprivation Induced Glial Scar-Like Change In Astrocytes.

2. PubMed ID: 25620315, Zhao Yy, Yuan Y, Chen Y, Jiang L, Liao Rj, Wang L, Zhang Xn, Ohtsu H, Hu Ww, Chen Z. Cns Neurosci Ther. 2015 May;21(5):454-62. Doi: 10.1111/Cns.12379. Epub 2015 Jan 24. Histamine Promotes Locomotion Recovery After Spinal Cord Hemisection Via Inhib...

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