

Anti-NXPH3 Antibody Picoband®

Catalog Number: A14597-3

About NXPH3

Neurexophilin-3 is a protein that in humans is encoded by the NXPH3 gene. Neurexophilin-3 (NXPH-3) is a neuropeptide-like secreted glycoprotein in the neurexophilin family. The 252 amino acid (aa) NXPH-3 precursor contains a 22 aa signal peptide, plus a 230 aa proprecursor that is likely cleaved at a basic motif, producing a 76 aa propeptide and a 154 aa mature protein. Mature rat NXPH-3 shares 99%, 95% and 92% aa identity with mouse, human and bovine NXPH-3, respectively. It contains motifs that are conserved among all neurexophilins, including three potential N-glycosylation sites in the N-terminal portion and six cysteines in the C-terminal portion. NXPH-3 is expressed selectively in subplate-derived neurons in the cortex, granule cells in the vestibulocerebellum, and Cajal-Retzius cells during development. NXPH-1 is the neurexophilin most similar to NXPH-3, sharing 69% aa identity within the mature region. Expression of NXPH-1 and NXPH-3 does not appear to overlap, with NXPH-1 expression occurring mainly by cells that resemble inhibitory interneurons. Both are tightly bound extracellular ligands of alpha -neurexins, synaptic transmembrane molecules that are essential for calcium-triggered neurotransmitter release. Genetic deletion of NXPH-1 and/or NXPH-3 produces no anatomical effect, although mice lacking NXPH-3 show specific defects in motor coordination. Of the other known neurexophilins, NXPH-2 is not expressed in rodents, and NXPH-4 does not bind alpha -neurexins.

Overview

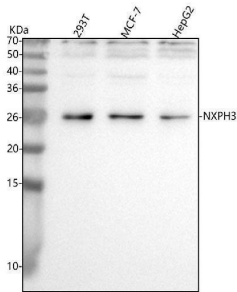
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|----------------------|---|
| Product Name | Anti-NXPH3 Antibody Picoband® |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-NXPH3 Antibody Picoband® catalog # A14597-3. Tested in WB, IHC, ICC/IF, FCM, ELISA applications. 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 | ELISA, Flow Cytometry, IF, IHC, 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 | O95157 |

Technical Details

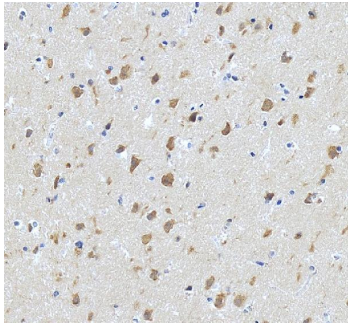
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|-------------------------------|--|
| Immunogen | E.coli-derived human NXPH3 recombinant protein (Position: R5-K217). Human NXPH3 shares 95.8% amino acid (aa) sequence identity with mouse and rat NXPH3, respectively. |
| Recommended Detection Systems | 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. |
| Form | Lyophilized |
| Concentration | Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml. |
| Purification | Immunogen affinity purified. |
| Suggested Dilutions | Western blot, 0.25-0.5 ug/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5 ug/ml, - |

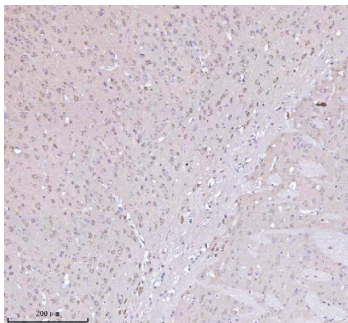
Anti-NXPH3 Antibody Picoband® (A14597-3) Images



Western blot analysis of NXPD3 using anti-NXPD3 antibody (A14597-3). 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 293T whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human HepG2 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-NXPD3 antigen affinity purified polyclonal antibody (Catalog # A14597-3) 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 NXPD3 at approximately 28 kDa. The expected band size for NXPD3 is at 28 kDa.

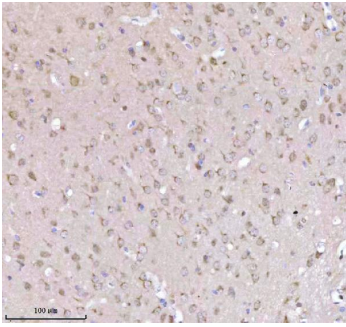


IHC analysis of Neurexophilin 3/NXPH3 using anti-Neurexophilin 3/NXPH3 antibody (A14597-3). Neurexophilin 3/NXPH3 was detected in a paraffin-embedded section of human brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Neurexophilin 3/NXPH3 Antibody (A14597-3) 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.

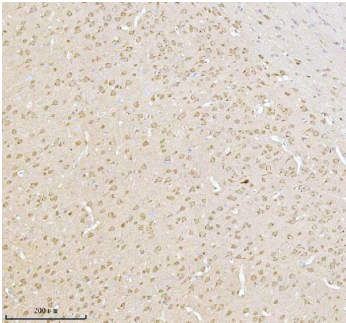


IHC analysis of NXPD3 using anti-NXPD3 antibody (A14597-3). NXPD3 was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NXPD3 Antibody (A14597-3) 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.

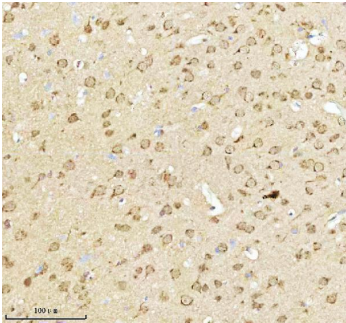
IHC analysis of NXPD3 using anti-NXPD3 antibody (A14597-3). NXPD3 was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope



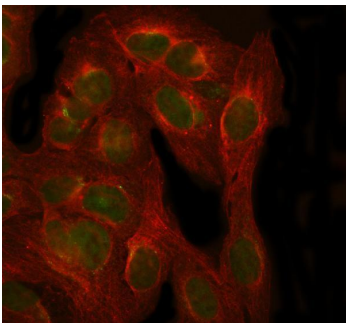
retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NXP3 Antibody (A14597-3) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of NXP3 using anti-NXP3 antibody (A14597-3). NXP3 was detected in a paraffin-embedded section of rat 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-NXP3 Antibody (A14597-3) 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.

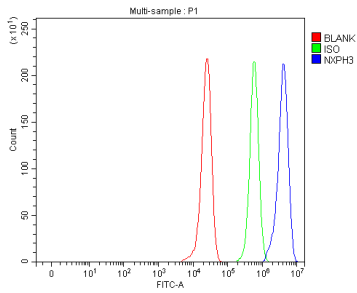


IHC analysis of NXP3 using anti-NXP3 antibody (A14597-3). NXP3 was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NXP3 Antibody (A14597-3) 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.

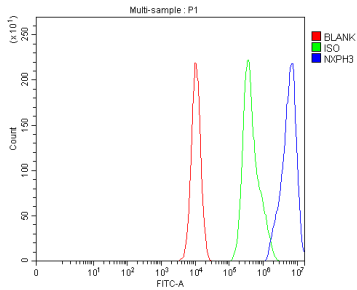


IF analysis of NXP3 using anti-NXP3 antibody (A14597-3) and anti-Beta Tubulin antibody (M01857-3). NXP3 was detected in immunocytochemical section of U2OS cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-NXP3 Antibody (A14597-3) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and DyLight®550 Conjugated Goat Anti-Mouse IgG (BA1133) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Flow Cytometry analysis of HepG2 cells using anti-NXP3 antibody (A14597-3). Overlay histogram showing HepG2 cells stained with A14597-3 (Blue line). The cells were fixed



with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-NXPH3 Antibody (A14597-3, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



Flow Cytometry analysis of K562 cells using anti-NXPH3 antibody (A14597-3). Overlay histogram showing K562 cells stained with A14597-3 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-NXPH3 Antibody (A14597-3, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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Anti-NXPH3 Antibody

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