BOSTER BIOLOGICAL TECHNOLOGY
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888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-GDNF Antibody Picoband®

Catalog Number: PA1465

About GDNF

GDNF, Glial cell-derived neurotrophic factor, is a protein that, in humans, is encoded by the GDNF gene. GDNF is a small protein that potently promotes the survival of many types of neurons. GDNF is a founding member of the GDNF family of ligands (GFL). The GDNF gene is mapped to human chromosome 5p13.1-p12 by fluorescence in situ hybridization (FISH). This gene encodes a highly conserved neurotrophic factor. The recombinant form of this protein was shown to promote the survival and differentiation of dopaminergic neurons in culture, and was able to prevent apoptosisof motor neurons induced by axotomy. The encoded protein is processed to a mature secreted form that exists as a homodimer. The mature form of the protein is a ligand for the product of the RET (rearranged during transfection) protooncogene.

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Overview

Product Name	Anti-GDNF Antibody Picoband®
Reactive Species	Human, Rat
Description	Boster Bio Anti-GDNF Antibody catalog # PA1465. Tested in IHC, WB applications. This antibody reacts with Human, 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 4mg Trehalose, 0.9mg NaCl and 0.2mg 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	P39905

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human GDNF, different from the related mouse sequence by three amino acids and rat sequence by two amino acids.

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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	Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, Rat

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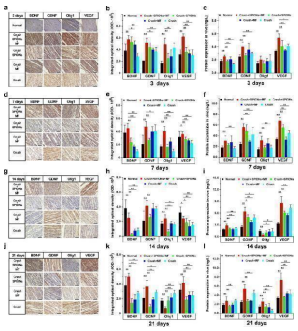
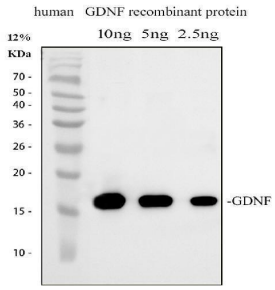
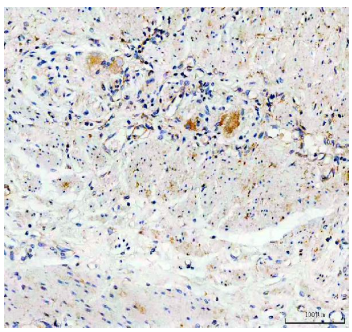
Anti-GDNF Antibody Picoband® (PA1465) Images



SPION-mediated magnetic actuation upregulates the expression of neurotrophic factors associated with repair phenotypes in Schwann cells. The protein expression of repair phenotype-related neurotrophic factors BDNF, GDNF, Olig1 and VEGF in different experimental groups was detected by immunohistochemical staining at 3 (a) , 7 (d) , 14 (g) and 21 days (j) after crush injury, and the protein expression levels were quantitatively analyzed (b , e , h , k). c , f , i , l The protein expression levels of such neurotrophic factors at the above time points were detected by ELISA, and the results were consistent with the immunohistochemical analysis. Each experiment was carried out in triplicate. The values are represented as the mean ± SD. Scale bar = 50 μm in panels a , d , g , j . * P < 0.05, ** P < 0.01 Index in PubMed under a CC BY license. PMID: 35351151



Western blot analysis of GDNF using anti-GDNF antibody (PA1465). Electrophoresis was performed on a 12% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: recombinant human GDNF protein 10 ng, Lane 2: recombinant human GDNF protein 5 ng, Lane 3: recombinant human GDNF protein 2.5 ng. 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-GDNF antigen affinity purified polyclonal antibody (Catalog # PB9064) 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 GDNF at approximately 17 kDa.



IHC analysis of GDNF using anti-GDNF antibody (PA1465). GDNF was detected in a paraffin-embedded section of human stomach cancer 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-GDNF Antibody (PA1465) 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 GDNF using anti-GDNF antibody (PA1465). GDNF was detected in a paraffin-embedded section of

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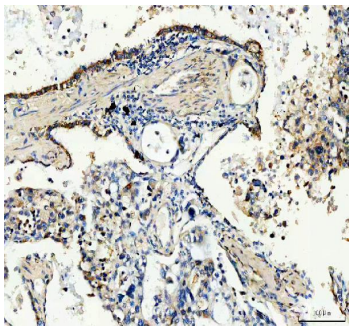
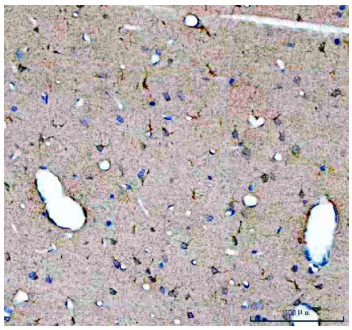


human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GDNF Antibody (PA1465) overnight at 4°C. Peroxidase Conjugated 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 GDNF using anti-GDNF antibody (PA1465). GDNF 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-GDNF Antibody (PA1465) 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.

8 Publications Citing This Product

1. PubMed ID: 10.1186/s12871-018-0491-y, The interplay of BDNF-TrkB with NMDA receptor in propofol-induced cognition dysfunction

2. PubMed ID: 10.3969/j.issn.1673-5374.2013.23.009, Antenatal taurine reduces cerebral cell apoptosis in fetal rats with intrauterine growth restriction

3. PubMed ID: 10.1111/and.14056, Culture bovine prospermatogonia with 2i medium

Visit bosterbio.com/anti-gdnf-antibody-pa1465-boster.html to see all 8 publications.

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