

Anti-CNTF Antibody Picoband™

Catalog Number: PB9032

About Cntf

Ciliary neurotrophic factor (CNTF) is a potent polypeptide hormone whose actions appear to be restricted to the nervous system where it promotes survival, neurotransmitter synthesis and neurite outgrowth in certain neuronal populations. The mouse CNTF gene is on mouse chromosome 19 and that its expression is unaffected in the mouse neurologic mutant wobbler, a form of spinal muscular atrophy. The CNTF protein is highly conserved in evolution. The protein is a potent survival factor for neurons and oligodendrocytes, and it may be involved in reducing tissue destruction during inflammatory attacks. CNTF is thought to act centrally by inducing hypothalamic neurogenesis to modulate food intake and peripherally by altering hepatic gene expression, in a manner similar to that of leptin.

Overview

Product Name	Anti-CNTF Antibody Picoband™
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-CNTF Antibody Picoband™ catalog # PB9032. Tested in IHC, WB applications. This antibody reacts with Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg 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	P51642

Technical Details

Immunogen	E.coli-derived mouse CNTF recombinant protein (Position: A2-M198). Mouse CNTF shares 83% and 95% amino acid (aa) sequences identity with human and rat CNTF, respectively.
Predicted Reactive Species	Bovine, Chicken, Horse, Monkey, Rabbit
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, Mouse Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, Rat, By Heat

Anti-CNTF Antibody Picoband™ (PB9032) Images

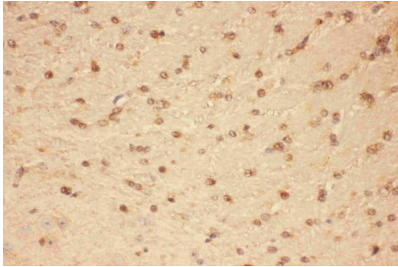


Figure 1. IHC analysis of CNTF using anti-CNTF antibody (PB9032).

CNTF was detected in paraffin-embedded section of mouse brain tissues. 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-CNTF Antibody (PB9032) 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.

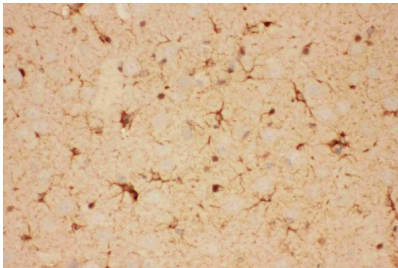


Figure 2. IHC analysis of CNTF using anti-CNTF antibody (PB9032).

CNTF was detected in paraffin-embedded section of rat brain tissues. 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-CNTF Antibody (PB9032) 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.

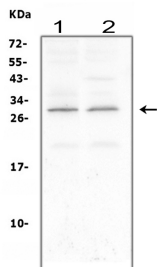


Figure 3. Western blot analysis of CNTF using anti-CNTF antibody (PB9032).

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: mouse brain 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-CNTF antigen affinity purified polyclonal antibody (Catalog # PB9032) 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 CNTF at approximately 29KD. The expected band size for CNTF is at 23KD.

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