

Anti-CNTF Antibody Picoband™

Catalog Number: PB9067

About Cntf

Ciliary neurotrophic factor is a protein that in humans is encoded by the CNTF gene. The protein encoded by this gene is a polypeptide hormone and nerve growth factor whose actions have mainly been studied in the nervous system where it promotes neurotransmitter synthesis and neurite outgrowth in certain neural populations including astrocytes. It is mapped to 11q12.1. In addition to neurotrophic effects on parasympathetic neurons, CNTF was shown to have activities on sympathetic and sensory neurons. CNTF appears not to be involved in motor neuron survival during development. human CNTF has a trophic influence on degenerating striatal neurons as well as on critical nonstriatal regions. CNTF plays a role in a cardiac signal transduction pathway that regulates obesity-related left ventricular hypertrophy.

Overview

Product Name	Anti-CNTF Antibody Picoband™
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-CNTF Antibody Picoband™ catalog # PB9067. Tested in ELISA, IHC, WB applications. This antibody reacts with Mouse, Rat.
Application	ELISA, 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	P20294

Technical Details

Immunogen	E. coli-derived rat CNTF recombinant protein (Position: A2-M200). Rat CNTF shares 84% and 95% amino acid (aa) sequences identity with human and mouse CNTF, respectively.
Predicted Reactive Species	Bovine, Canine, 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: ELISA , 0.1-0.5ug/ml, Rat, - Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, Rat, By Heat Western blot, 0.1-0.5ug/ml, Rat

Anti-CNTF Antibody Picoband™ (PB9067) Images

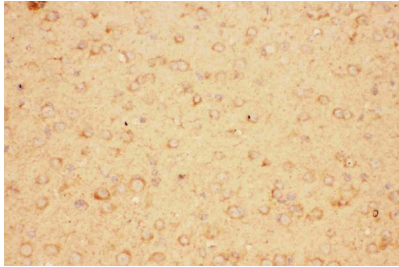


Figure 1. IHC analysis of CNTF using anti-CNTF antibody (PB9067).

CNTF 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 1 ug/ml rabbit anti-CNTF Antibody (PB9067) 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.

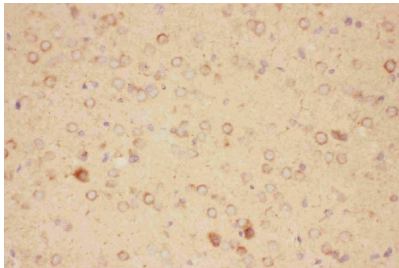


Figure 2. IHC analysis of CNTF using anti-CNTF antibody (PB9067).

CNTF 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 1 ug/ml rabbit anti-CNTF Antibody (PB9067) 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.

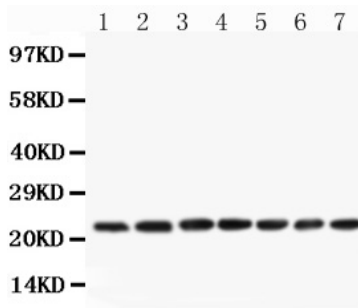


Figure 3. Western blot analysis of CNTF using anti-CNTF antibody (PB9067).

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: rat PC-12 whole cell lysates,
Lane 2: rat NRK whole cell lysates,
Lane 3: rat RH-35 whole cell lysates,
Lane 4: rat brain tissue lysates,
Lane 5: rat liver tissue lysates,
Lane 6: rat spleen tissue lysates,
Lane 7: rat testis tissue 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-CNTF antigen affinity purified polyclonal antibody (Catalog # PB9067) 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 CNTF at approximately 23 kDa. The expected band size for CNTF is at 23 kDa.

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