

Anti-Choline Acetyltransferase/Chat Antibody Picoband®

Catalog Number: A01192-5

About Chat

Choline acetyltransferase (commonly abbreviated as ChAT, but sometimes CAT) is a transferase enzyme responsible for the synthesis of the neurotransmitter acetylcholine. In humans, the choline acetyltransferase enzyme is encoded by the CHAT gene. This gene product is a characteristic feature of cholinergic neurons, and changes in these neurons may explain some of the symptoms of Alzheimer's disease. Polymorphisms in this gene have been associated with Alzheimer's disease and mild cognitive impairment. Mutations in this gene are associated with congenital myasthenic syndrome associated with episodic apnea. Multiple transcript variants encoding different isoforms have been found for this gene, and some of these variants have been shown to encode more than one isoform.

Overview

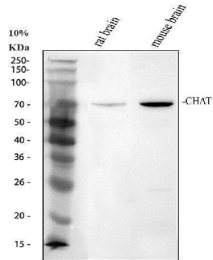
Product Name	Anti-Choline Acetyltransferase/Chat Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Choline Acetyltransferase/Chat Antibody Picoband® catalog # A01192-5. Tested in ELISA, IHC, WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this 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, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
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	P32738

Technical Details

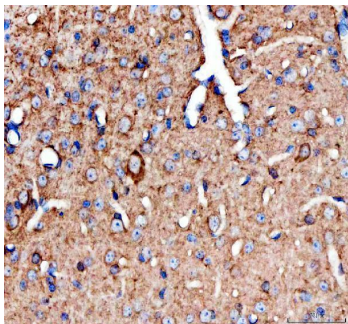
Immunogen	E.coli-derived rat Choline Acetyltransferase/Chat recombinant protein (Position: E19-D612).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for 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, 0.25-0.5ug/ml, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Mouse, Rat ELISA, 0.1-0.5ug/ml, -

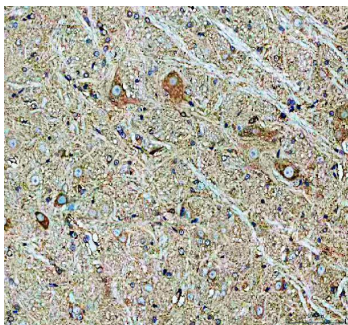
Anti-Choline Acetyltransferase/Chat Antibody Picoband® (A01192-5) Images



Western blot analysis of Chat using anti-Chat antibody (A01192-5). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug 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 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-Chat antigen affinity purified polyclonal antibody (A01192-5) 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 (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for Chat at approximately 71 kDa. The expected band size for Chat is at 72 kDa.



IHC analysis of Chat using anti-Chat antibody (A01192-5). Chat was detected in a paraffin-embedded section of mouse spinal cord 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-Chat Antibody (A01192-5) 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 Chat using anti-Chat antibody (A01192-5). Chat was detected in a paraffin-embedded section of rat spinal cord 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-Chat Antibody (A01192-5) 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.

7 Publications Citing This Product

1. PubMed ID: 10.1186/s12872-016-0375-3, Autonomic remodeling may be responsible for decreased incidence of aortic dissection in STZ-induced diabetic rats via down-regulation of matrix metalloprotease 2
2. PubMed ID: 10.1111/j.1527-3458.2007.00031.x, Protection of Mouse Brain from Aluminum³⁺induced Damage by Caffeic Acid

3. PubMed ID: 10.1111/cns.12187, Activation of Muscarinic Receptors Protects against Retinal Neurons Damage and Optic Nerve Degeneration In Vitro and In Vivo Models

Visit bosterbio.com/anti-choline-acetyltransferase-chat-picoband-trade-antibody-a01192-5-boster.html to see all 7 publications.

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