antibodies

Datasheet for ABIN5518818 anti-Choline Acetyltransferase antibody (AA 446-652)

3 Images

7 Publications



Overview

Quantity:	100 µg
Target:	Choline Acetyltransferase (CHAT)
Binding Specificity:	AA 446-652
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))
Product Details	
Purpose:	Rabbit IgG polyclonal antibody for Choline O-acetyltransferase(CHAT) detection. Tested with WB, IHC-P in Human,Mouse,Rat.
Immunogen:	E.coli-derived human CHAT recombinant protein (Position: D446-R652). Human CHAT shares 88.4% and 87% amino acid (aa) sequence identity with mouse and rat CHAT, respectively.
lsotype:	lgG
Cross-Reactivity (Details):	Predicted Cross Reactivity: human No cross reactivity with other proteins. Predicted Cross Reactivity: Species predicted to be fit for the product based on sequence similarities.
Characteristics:	Rabbit IgG polyclonal antibody for Choline O-acetyltransferase(CHAT) detection. Tested with WB, IHC-P in Human,Mouse,Rat. Gene Name: choline O-acetyltransferase

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Product Details	
	Protein Name: Choline O-acetyltransferase
Purification:	Immunogen affinity purified.
Target Details	
Target:	Choline Acetyltransferase (CHAT)
Alternative Name:	CHAT (CHAT Products)
Background:	 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. Synonyms: ChAT CHOACTase Choline acetylase choline acetyltransferase Choline 0 acetyltransferase CMS1A CMS1A2 CMS6 P28329
Gene ID:	1103
UniProt:	P28329
Pathways:	Skeletal Muscle Fiber Development
Application Details	
Application Notes:	WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Mouse, Rat, Predicted Species: Human IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Mouse, Rat, Predicted Species: Human, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections. Notes: Tested Species: Species with positive results. Predicted Species: Species predicted to be fit for the product based on sequence similarities. Other applications have not been tested. Optimal dilutions should be determined by end users.
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).

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Application Details

Restrictions:

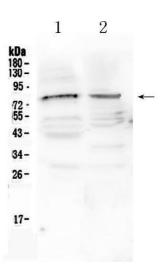
For Research Use only

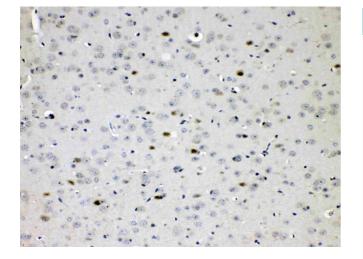
Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 μ g/mL.
Concentration:	500 μg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.
Publications	

Product cited in: Zhou, Xiong, Huang, Tang, Yu, Lan: "Identification of Genes Associated with Smad3-dependent Renal Injury by RNA-seq-based Transcriptome Analysis." in: **Scientific reports**, Vol. 5, pp. 17901, (2016) (PubMed).

There are more publications referencing this product on: Product page





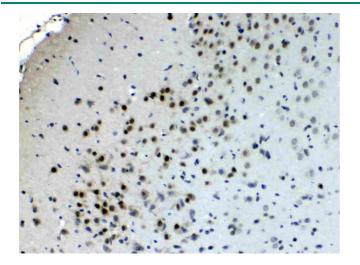
Western Blotting

Image 1. Western blot analysis of CHAT using anti- CHAT antibody. 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 testis tissue lysates, Lane 2: mouse testis tissue lysates. After Electrophoresis, proteins transferred were to а 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-CHAT antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/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 CHAT at approximately 83KD. The expected band size for CHAT is at 83KD.

Immunohistochemistry

Image 2. IHC analysis of CHAT using anti- CHAT antibody . CHAT 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 1µg/ml rabbit anti- CHAT Antibody 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 Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

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Immunohistochemistry

Image 3. IHC analysis of CHAT using anti- CHAT antibody . CHAT 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 1µg/ml rabbit anti- CHAT Antibody 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 Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

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