



Rabbit Anti-ChAT antibody

SL0042R

Product Name:	ChAT
Chinese Name:	ChAT胆碱乙酰转移酶抗体
Alias:	Choline O acetyltransferase; Choline O acetyltransferase; Acetyl CoA choline O acetyltransferase; Acetyl CoA:choline O acetyltransferase; ChAT; CHOACTase; Choline acetylase; choline acetyltransferase; CMS1A; CMS1A2; EC 2.3.1.6; OTTHUMP00000019583; OTTHUMP00000019584; CLAT_HUMAN.
文献引用 PubMed :	<p>Specific References(3) SL0042R has been referenced in 3 publications.</p> <p>[IF=3.53]Zhang Y, Zheng S, Geng Y, Xue J, Wang Z, et al. (2015) MicroRNA Profiling of Atrial Fibrillation in Canines: MiR-206 Modulates Intrinsic Cardiac Autonomic Nerve Remodeling by Regulating SOD1. PLoS ONE 10(3): e0122674. other;Dog. PubMed:25816284</p> <p>[IF=4.45]Wieck, Minna M., et al. "Human and murine tissue-engineered colon exhibit diverse neuronal subtypes and can be populated by enteric nervous system progenitor cells when donor colon is aganglionic." Tissue Engineering A (2015).IHC-P;Human. PubMed:26414777</p> <p>[IF=3.58]Zhang, Xiuli, et al. "Catalpol improves cholinergic function and reduces inflammatory cytokines in the senescent mice induced by D-galactose."Food and chemical toxicology 58 (2013): 50-55.IHC-P;Mouse. PubMed:23612000</p>
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1ug/TestIF=1:200-800 (Paraffin sections need antigen repair)

	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	82kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human ChAT:101-200/748
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	<p>This gene encodes an enzyme which catalyzes the biosynthesis of the neurotransmitter acetylcholine. 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. [provided by RefSeq, May 2010].</p> <p>Function: Catalyzes the reversible synthesis of acetylcholine (ACh) from acetyl CoA and choline at cholinergic synapses.</p> <p>DISEASE: Defects in CHAT are the cause of congenital myasthenic syndrome with episodic apnea (CMSEA) [MIM:254210]; formerly known as familial infantile myasthenia gravis 2 (FIMG2). CMSEA is an autosomal recessive congenital myasthenic syndrome. Patients have myasthenic symptoms since birth or early infancy, negative tests for anti-AChR antibodies, and abrupt episodic crises with increased weakness, bulbar paralysis, and apnea precipitated by undue exertion, fever, or excitement.</p> <p>Similarity: Belongs to the carnitine/choline acetyltransferase family.</p> <p>SWISS: P28329</p> <p>Gene ID: 1103</p> <p>Database links:</p>

[Entrez Gene: 1103](#)Human

[Entrez Gene: 12647](#)Mouse

[Entrez Gene: 290567](#)Rat

[Omim: 118490](#)Human

[SwissProt: P28329](#)Human

[SwissProt: Q03059](#)Mouse

[SwissProt: P32738](#)Rat

[Unigene: 302002](#)Human

[Unigene: 442817](#)Mouse

[Unigene: 45116](#)Rat

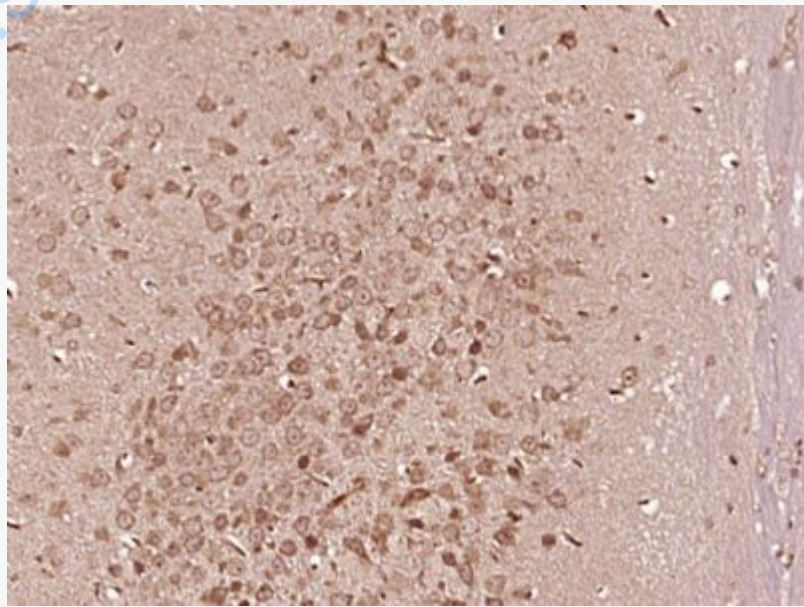
Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

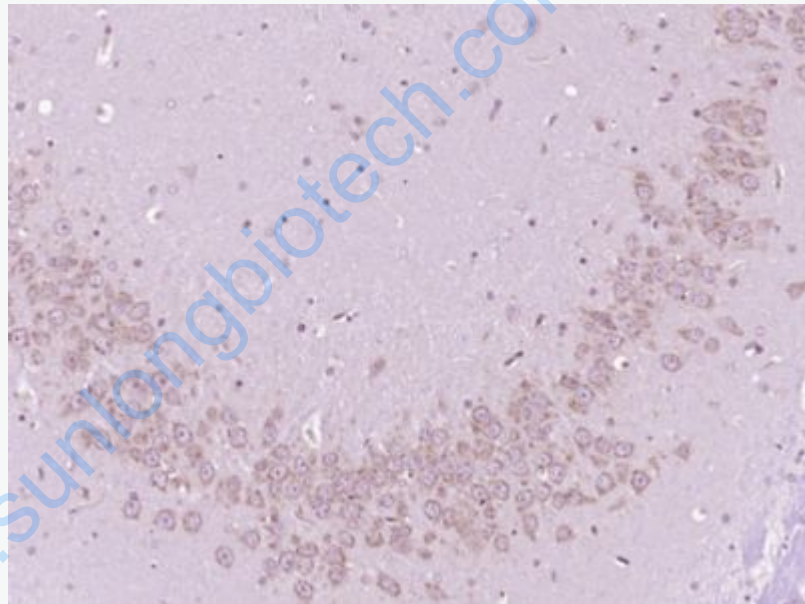
胆碱乙酰转移酶是一种在神经元胞体内合成的酶。当该转移酶被合成以后, 通过轴质流动方式转移到神经轴突末端。其功能是将乙酰辅酶A转移到胆碱上, 导致神经递质乙酰胆碱的形成。胆碱能系统参与多种神经功能。一些胆碱能神经元的改变能导致阿尔茨海默病的发生。

胆碱乙酰转移酶通常被用来标记神经元。

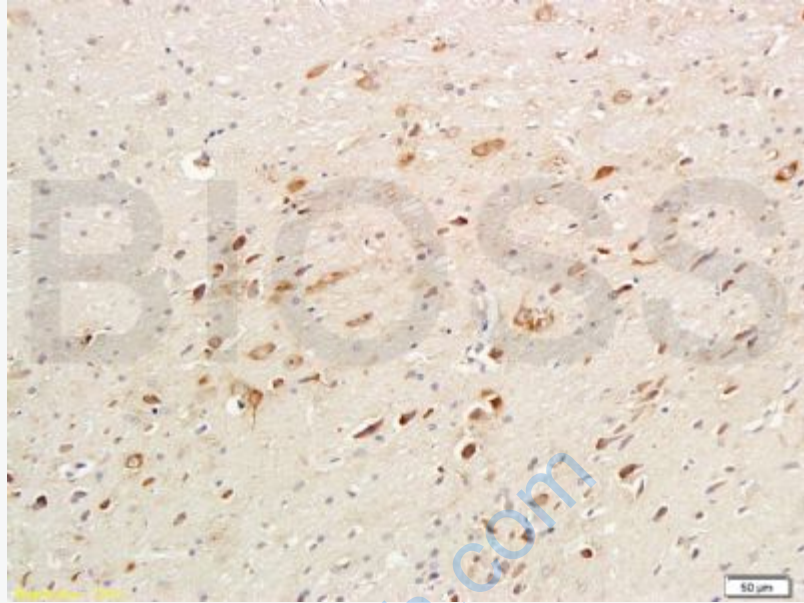
Picture:



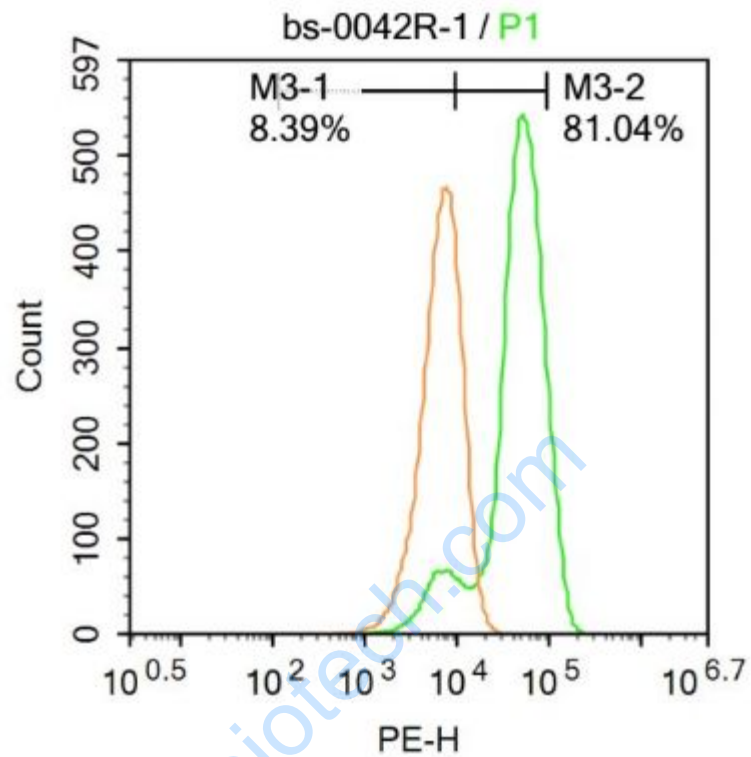
Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ChAT) Polyclonal Antibody, Unconjugated (SL0042R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ChAT) Polyclonal Antibody, unconjugated (SL0042R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-ChAT Polyclonal Antibody, Unconjugated(SL0042R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: Molt-4.

Primary Antibody (green line): Rabbit Anti-ChAT antibody (SL0042R)

Dilution: $1\mu\text{g}/10^6$ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

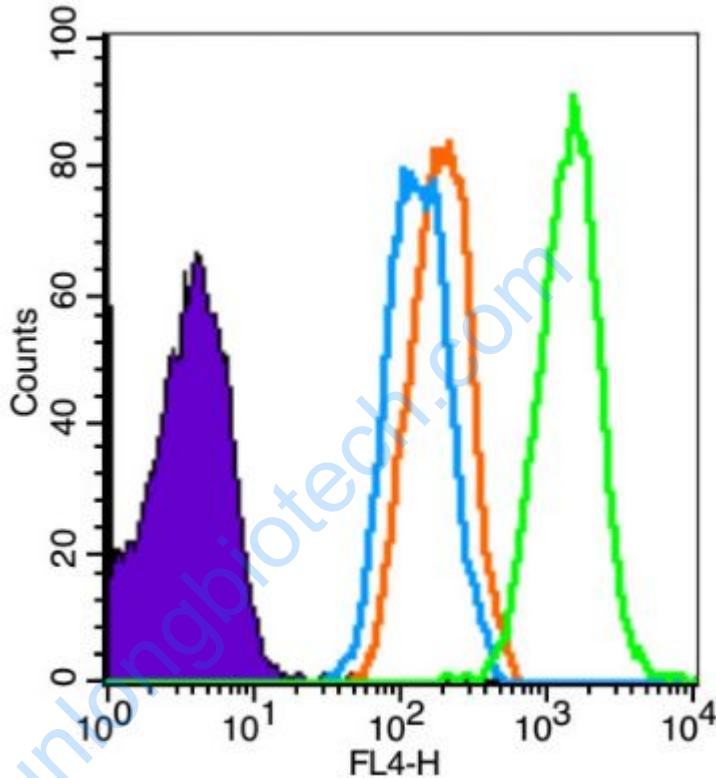
Secondary Antibody : Goat anti-rabbit IgG-AF647

Dilution: $1\mu\text{g}/\text{test}$.

Protocol

The cells were fixed with 4% PFA (10min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C . The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature . Cells stained with Primary Antibody for 30 min at room

temperature. The secondary antibody used for 40 min at room temperature.
Acquisition of 20,000 events was performed.



Blank control (Black line): Molt-4(Black).

Primary Antibody (green line): Rabbit Anti-ChAT antibody (SL0042R)

Dilution: $1\mu\text{g} / 10^6$ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE

Dilution: $1\mu\text{g} / \text{test}$.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at room temperature. The

cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.