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Choline Acetyltransferase Antibody
Catalog # ASM10560

Specification

Choline Acetyltransferase Antibody - Product Information

Application	**WB**
Primary Accession	P28329
Other Accession	NP_001136401.1
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**

Description
Rabbit Anti-Human Choline Acetyltransferase Polyclonal

Target/Specificity
Predicted molecular weight at ~82.5kDa. Observed molecular weights between 68-70kDa.

Other Names
CHAT_Human Antibody, Acetyl CoA choline O Acetyltransferase Antibody, Choline Acetylase Antibody, CLAT_Human Antibody, CMS1A Antibody

Immunogen
Synthetic peptide from the N-terminal to the mid-protein of human Choline O-Acetyltrasferase

Purification
Peptide Affinity Purified

Storage	**-20ºC**

Storage Buffer
PBS, 50% glycerol, 0.09% sodium azide

Shipping Temperature	**Blue Ice or 4ºC**

Certificate of Analysis
A 1:1000 dilution of SPC-706 was sufficient for detection of Choline Acetyltransferase on mouse brain lysates using Goat anti-rabbit IgG:HRP as the secondary antibody.

Cellular Localization
Cytoplasm | Cytosol | Mitochondrion | Nucleus

Choline Acetyltransferase Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

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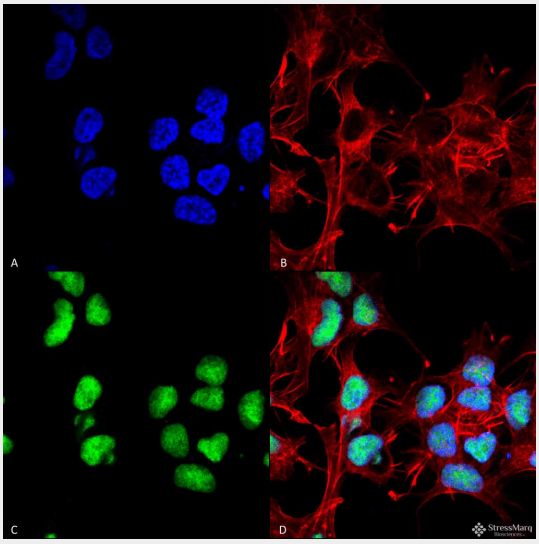
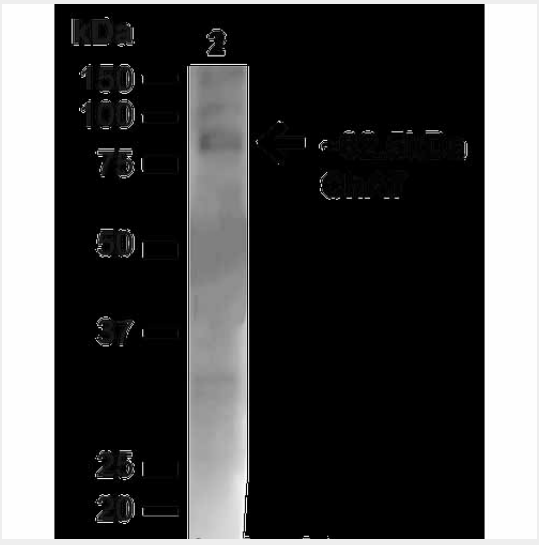
- Flow Cytomety
- Cell Culture

Choline Acetyltransferase Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-Choline Acetyltransferase Polyclonal Antibody (ASM10560). Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Rabbit Anti-Choline Acetyltransferase Polyclonal Antibody (ASM10560) at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Rabbit ATTO 488 at 1:100 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000, 1:5000 for 60min RT, 5min RT. Localization: Nucleus. Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) Choline Acetyltransferase Antibody (D) Composite.



Western blot analysis of Mouse Brain showing detection of ~82.5kDa Choline Acetyltransferase protein using Rabbit Anti-Choline Acetyltransferase Polyclonal Antibody (ASM10560). Lane 1: MW Ladder. Lane 2: Mouse Brain (20 µg). Load: 20 µg. Block: 5% milk + TBST for 1 hour at RT. Primary Antibody: Rabbit Anti-Choline Acetyltransferase Polyclonal Antibody (ASM10560) at 1:1000 for 1 hour at RT. Secondary Antibody: Goat Anti-Rabbit: HRP at 1:2000 for 1 hour at RT. Color Development: TMB solution for 12 min at RT. Predicted/Observed Size: ~82.5kDa.

Choline Acetyltransferase Antibody - Background

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Acetylcholine (ACh) is a common neurotransmitter for motoneurons, preganglionic autonomic neurons, postganglionic parasympathetic neurons, a variety of brain regions and some emerging neuron-like stem cells. The metabolism of Ach is relatively simple, involving only two enzymes: choline acetyltransferase (ChAT) for synthesis and acetylcholinesterase (AChE) for degradation. Further, acetylcholine has little function in neurons other than neurotransmission and seems to be neuron specific. It seems that only cholinergic neurons have significant amounts of ChAT making anti-choline acetyltransferase a useful specific marker. ChAT is a valuable marker for diseases associated with decreased cholinergic function such as Schizophrenia, Alzheimer disease and Down syndrome (1-3).

Choline Acetyltransferase Antibody - References

1. Houser C.R., Crawford G.D., Barber R.P., Salvaterra P.M., Vaughn J.E. (1983) Brain Research. 266(1): 97-119.
2. Karson C.N., Casanova M.F., Kleinman J.E.m Griffin W.S. (1993) Am J Psychiatry. 150: 454-459.
3. Baskins D.S., et al. (1999) Arch Neurol. 56: 1121-1123.