Datasheet for ABIN2869096

anti-Choline Acetyltransferase antibody (N-Term) (Atto 488)

2 Images

Go to Product page

Overview

Quantity:	100 µg
Target:	Choline Acetyltransferase (CHAT)
Binding Specificity:	N-Term
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Choline Acetyltransferase antibody is conjugated to Atto 488
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	Synthetic peptide from the N-terminal to the mid-protein of human Choline O-Acetyltrasferase
Specificity:	Predicted molecular weight at ~82.5 kDa. Observed molecular weights between 68-70 kDa.
Cross-Reactivity:	Human, Mouse
Purification:	Peptide Affinity Purified

Target Details

Target:	Choline Acetyltransferase (CHAT)
Alternative Name:	Choline Acetyltransferase (CHAT Products)
Background:	Acetylcholine (ACh) is a common neurotransmitter for motoneurons, preganglionic autonomic neurons, postganglionic parasympathetic neurons, a variety of brain regions and some

Target Details

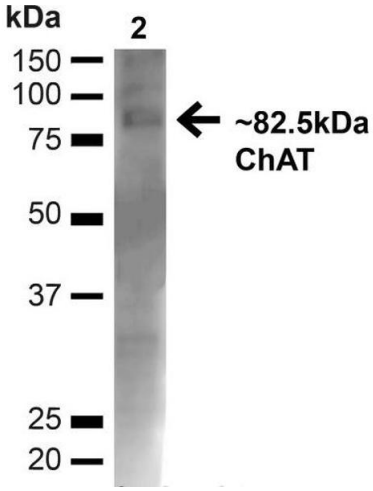
	emerging neuron-like stem cells. The metabolism of Ach is relatively simple, involving only two enzymes: choline acetyltransferase (ChAT) for synthesis and acetylcholinesterase (AChE) for degradation. Further, acetylcholine has little function in neurons other than neurotransmission and seems to be neuron 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).
Gene ID:	1103
NCBI Accession:	NP_001136401
UniProt:	P28329
Pathways:	Skeletal Muscle Fiber Development

Application Details

Application Notes:	• WB (1:1000) • ICC/IF (1:100) • optimal dilutions for assays should be determined by the user.
Comment:	A 1:1000 dilution of ABIN2869096 was sufficient for detection of Choline Acetyltransferase on mouse brain lysates using Goat anti-rabbit IgG:HRP as the secondary antibody.
Restrictions:	For Research Use only

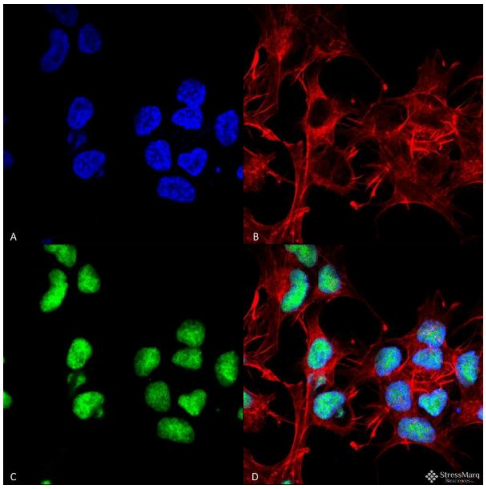
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
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
Storage Comment:	Conjugated antibodies should be stored at 4°C



Western Blotting

Image 1. Western blot analysis of Mouse Brain showing detection of ~82.5 kDa Choline Acetyltransferase protein using Rabbit Anti-Choline Acetyltransferase Polyclonal Antibody (ABIN2869096). 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 (ABIN2869096) 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: ~82.5 kDa.



Immunofluorescence (fixed cells)

Image 2. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-Choline Acetyltransferase Polyclonal Antibody . 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 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.