

Anti-Choline Acetyltransferase antibody [EPR13024(B)] ab181023

Recombinant RabMAb

★★★★★ 1 Abreviews 17 References 11 Images

Overview

Product name	Anti-Choline Acetyltransferase antibody [EPR13024(B)]
Description	Rabbit monoclonal [EPR13024(B)] to Choline Acetyltransferase
Host species	Rabbit
Specificity	The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P, Flow Cyt (Intra), IHC-Fr, ICC/IF and IP for mouse and rat.
Tested applications	Suitable for: IHC-P, Flow Cyt (Intra), IHC-Fr, ICC/IF, IP, WB
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: SH-SY5Y and C6 cell lysate, human fetal brain lysate, mouse and rat brain lysates IP: Human fetal brain lysate Flow Cyt (intra): SH-SY5Y cells ICC/IF: U-87 MG and SH-SY5Y cells IHC-P: Human cerebrum tissue IHC-Fr: Hu cerebral cortex tissue sections.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR13024(B)
Isotype	IgG

Applications

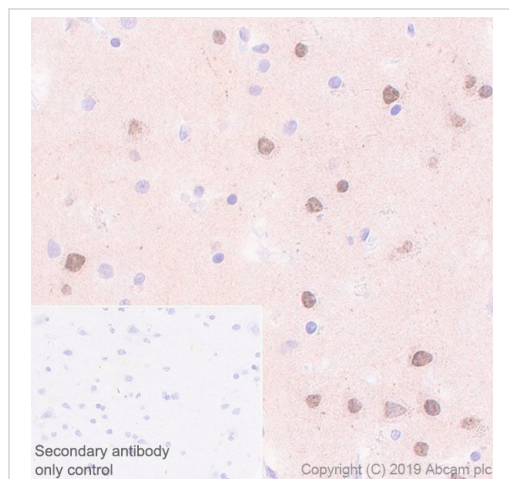
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab181023 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See <u>IHC antigen retrieval protocols</u> . For unpurified format use at 1/100 dilution. The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
Flow Cyt (Intra)		1/60 - 1/110. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IHC-Fr	★★★★★ (1)	Use at an assay dependent concentration.
ICC/IF		1/50 - 1/100.
IP		1/30 - 1/70.
WB		1/1000 - 1/10000. Predicted molecular weight: 82 kDa.

Target

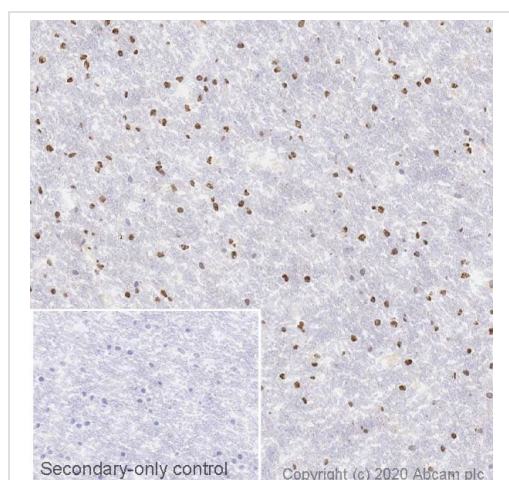
Function	Catalyzes the reversible synthesis of acetylcholine (ACh) from acetyl CoA and choline at cholinergic synapses.
Involvement in disease	Myasthenic syndrome, congenital, 6, presynaptic
Sequence similarities	Belongs to the carnitine/choline acetyltransferase family.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Choline Acetyltransferase antibody [EPR13024(B)] (ab181023)

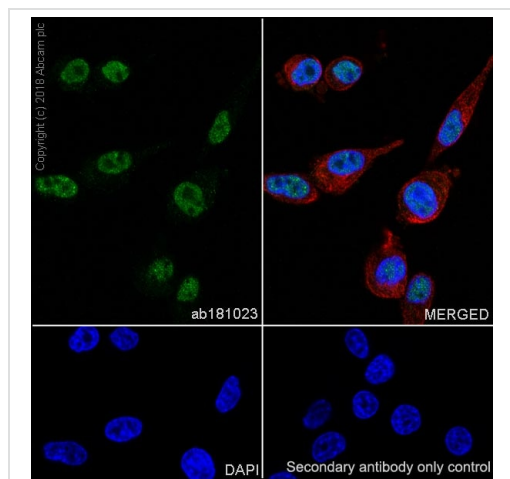
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human cerebrum tissue sections labeling Choline Acetyltransferase with purified ab181023 at 1/2000 dilution (0.28 µg/ml). Heat mediated antigen retrieval was performed using heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Frozen sections) - Anti-Choline Acetyltransferase antibody [EPR13024(B)] (ab181023)

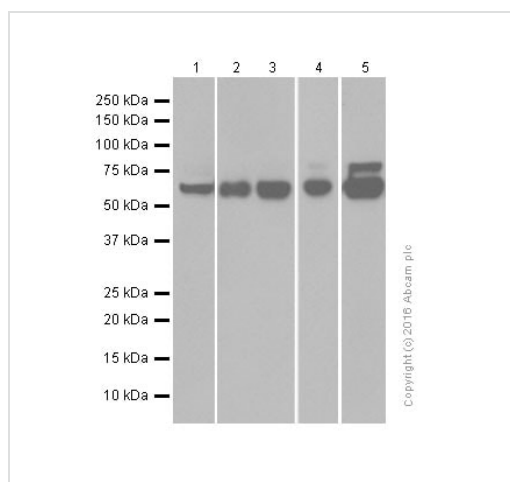
IHC image of Choline Acetyltransferase staining in a section of frozen normal human cerebral cortex performed on a Leica BOND™ system using the standard protocol. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with ab181023, 1/2000 dilution, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Immunocytochemistry/ Immunofluorescence - Anti-Choline Acetyltransferase antibody [EPR13024(B)] (ab181023)

Immunocytochemistry/ Immunofluorescence analysis of U-87 MG (Human glioblastoma-astrocytoma epithelial cell) cells labeling Choline Acetyltransferase with purified ab181023 at 1/50 dilution (10 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Western blot - Anti-Choline Acetyltransferase antibody [EPR13024(B)] (ab181023)

All lanes : Anti-Choline Acetyltransferase antibody [EPR13024(B)] (ab181023) at 1/2000 dilution (Purified)

Lane 1 : SH-SY5Y (Human neuroblastoma epithelial cell) whole cell lysates

Lane 2 : Mouse brain lysates

Lane 3 : Rat brain lysates

Lane 4 : C6 (Rat glial tumor glial cell) whole cell lysates

Lane 5 : Human fetal brain lysates

Lysates/proteins at 20 µg per lane.

Secondary

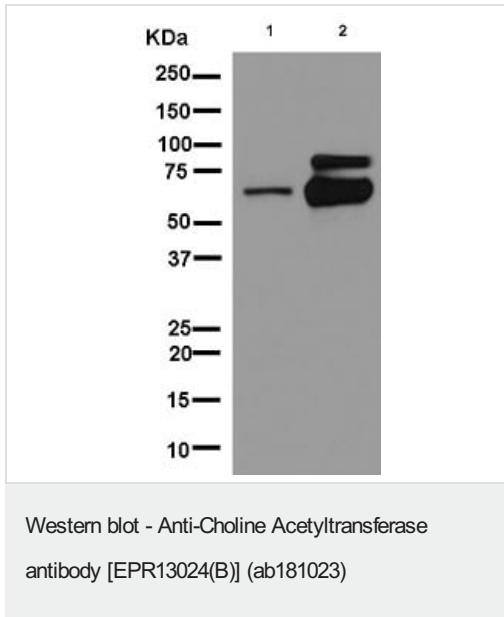
All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 82 kDa

Observed band size: 70-82 kDa

This antibody recognizes all Choline Acetyltransferase isoforms

with the MW ranging from 70-82 KDa based on immunogen blast.



All lanes : Anti-Choline Acetyltransferase antibody [EPR13024(B)] (ab181023) at 1/5000 dilution (unpurified)

Lane 1 : SH-SY5Y cell lysate

Lane 2 : Human fetal brain lysate

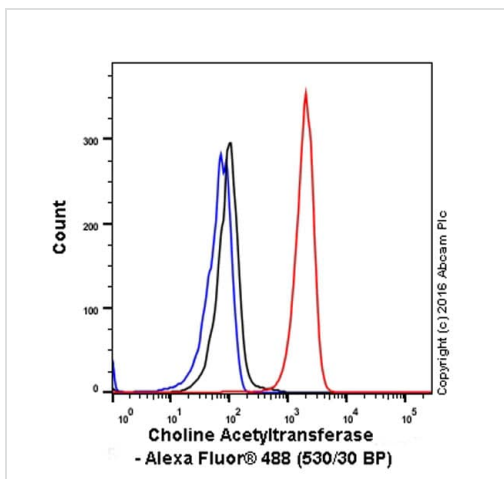
Lysates/proteins at 20 µg per lane.

Secondary

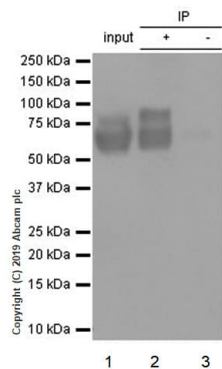
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 82 kDa

Blocking/ Dilution buffer: 5% NFDM /TBST.



Intracellular Flow Cytometry analysis of SH-SY5Y (Human neuroblastoma epithelial cell) cells labeling Choline Acetyltransferase with purified ab181023 at 1/60 dilution (10µg/ml) (red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunoprecipitation - Anti-Choline Acetyltransferase antibody [EPR13024(B)] (ab181023)

ab181023 (purified) at 1/30 dilution (2ug) immunoprecipitating Choline Acetyltransferase in Human fetal brain lysate. Human fetal brain lysate 10ug

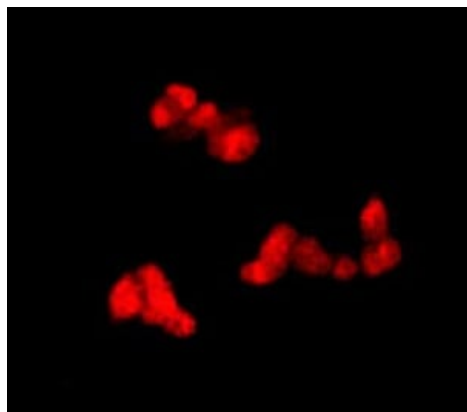
Lane 2 (+): ab181023 & Human fetal brain lysate

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab181023 in Human fetal brain lysate

For western blotting, VeriBlot for IP secondary antibody (HRP)

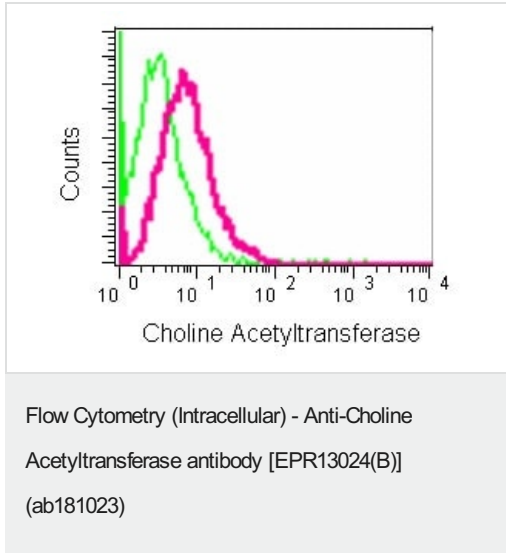
(**ab131366**) was used at 1/1000 dilution.

Blocking and diluting buffer: 5% NFDm/TBST.

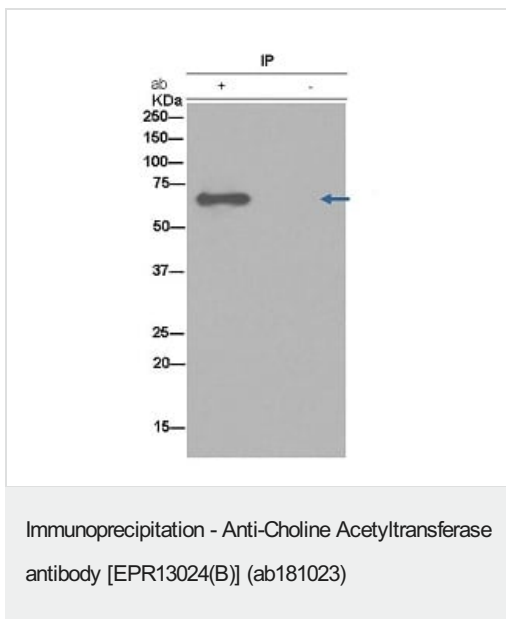


Immunocytochemistry/ Immunofluorescence - Anti-Choline Acetyltransferase antibody [EPR13024(B)] (ab181023)

Immunofluorescent analysis of 4% paraformaldehyde fixed SH-SY5Y cells labeling Choline Acetyltransferase using ab181023 (unpurified) at a 1/100 dilution. A Goat anti rabbit IgG (Alexa Fluor®555) was used as the secondary at a 1/100 dilution.



Intracellular Flow Cytometry analysis of SH-SY5Y cells labeling Choline Acetyltransferase using ab181023 (unpurified) at a 1/110 dilution (pink). Goat anti rabbit IgG (FITC) used as the secondary at a 1/150 dilution. Isotype control Rabbit monoclonal IgG (green). Cells were fixed in 2% paraformaldehyde.



Lysate from Human fetal brain (Lane 1) and negative control (Lane 2) were immunoprecipitated with ab181023 (unpurified) at a 1/70 dilution. A anti-rabbit IgG (HRP), specific to the non-reduced form of IgG at a 1/1500 dilution for the secondary. Blocking/ Dilution buffer: 5% NFDM/TBST.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Choline Acetyltransferase antibody

[EPR13024(B)] (ab181023)

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