

## Product datasheet

# Anti-Acetylcholinesterase antibody [EPR18978] ab183591

Recombinant RabMAb

[8 Images](#)

### Overview

<b>Product name</b>	Anti-Acetylcholinesterase antibody [EPR18978]
<b>Description</b>	Rabbit monoclonal [EPR18978] to Acetylcholinesterase
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, IHC-Fr
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat
<b>Immunogen</b>	Synthetic peptide within Mouse Acetylcholinesterase aa 50-150. The exact sequence is proprietary. Database link: <a href="#">P21836</a>
<b>Positive control</b>	WB: Mouse brain and striatum lysates; rat striatum, hippocampus and brain lysates. IHC-P: Mouse striatum and skeletal muscle tissues; rat striatum and skeletal muscle tissues. IHC-Fr: Mouse brain (Coronal section) and rat brain (sagittal section) tissues.

### General notes

Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMab<sup>®</sup> patents](#).

This product is a [recombinant rabbit monoclonal antibody](#).

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR18978

Isotype

IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab183591** 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
WB		1/1000. Detects a band of approximately 68 kDa (predicted molecular weight: 68 kDa).
IHC-P		1/50. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IHC-Fr		1/1000. Antigen retrieval step: Heated citrate solution (10mM citrate pH 6.0 + 0.05% Tween-20)

## Target

### Function

Terminates signal transduction at the neuromuscular junction by rapid hydrolysis of the acetylcholine released into the synaptic cleft. Role in neuronal apoptosis.

### Tissue specificity

Isoform H is highly expressed in erythrocytes.

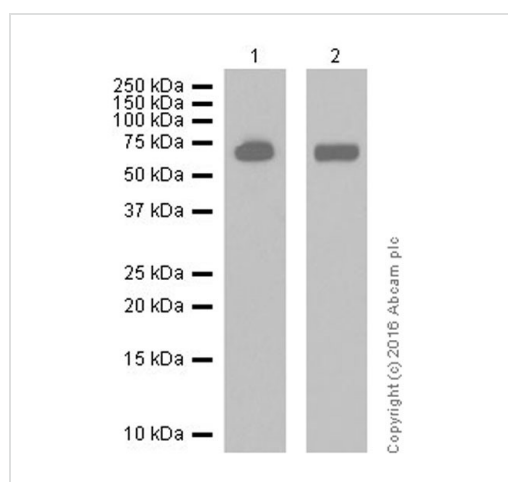
### Sequence similarities

Belongs to the type-B carboxylesterase/lipase family.

### Cellular localization

Cell membrane; Cell junction > synapse. Secreted. Cell membrane and Nucleus. Only observed in apoptotic nuclei.

## Images



Western blot - Anti-Acetylcholinesterase antibody [EPR18978] (ab183591)

**All lanes** : Anti-Acetylcholinesterase antibody [EPR18978]

(ab183591) at 1/1000 dilution

**Lane 1** : Mouse brain lysate

**Lane 2** : Mouse striatum lysate

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at

1/100000 dilution

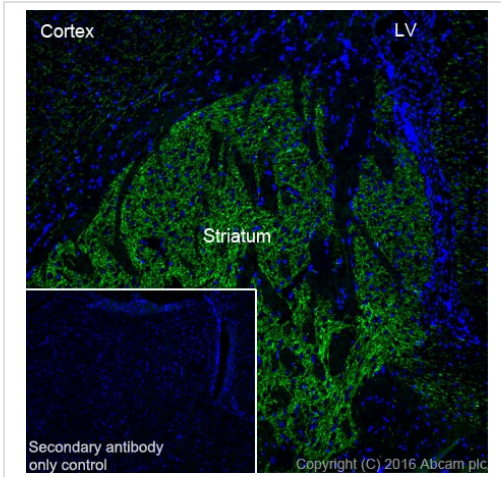
**Predicted band size:** 68 kDa

**Observed band size:** 68 kDa

Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure times: Lane 1: 30 seconds, Lane 2: 3 minutes.

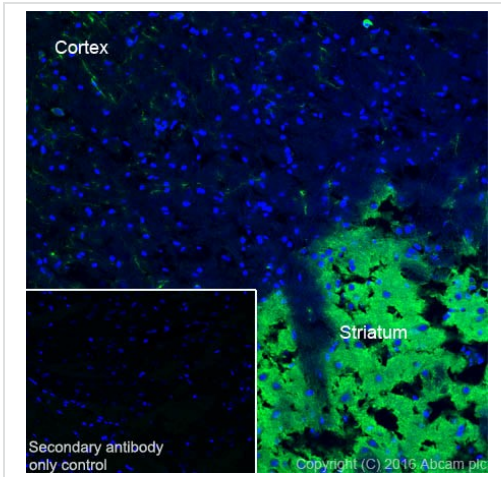
Acetylcholinesterase hydrolyzes the acetylcholine at neuromuscular junctions and brain cholinergic synapses, and thus terminates signal transmission (PMID: 2400605; PMID 8515842).



Immunohistochemistry (Frozen sections) - Anti-Acetylcholinesterase antibody [EPR18978] (ab183591)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen Mouse brain (Coronal section) tissue labeling Acetylcholinesterase with ab183591 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor<sup>®</sup> 488) (ab150077) secondary antibody at 1/1000 dilution (green). The result showed high expression on Mouse striatum. The nuclear counterstain is DAPI (blue).

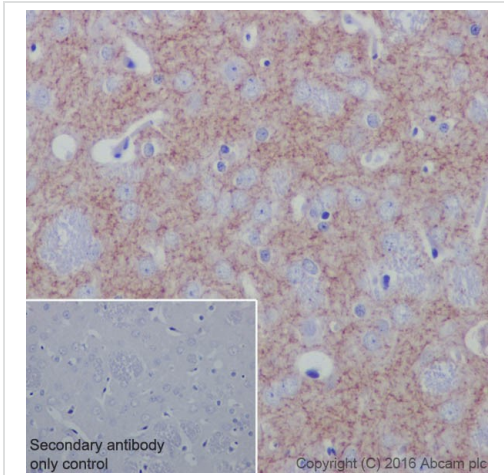
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab150077 at 1/1000 dilution



Immunohistochemistry (Frozen sections) - Anti-Acetylcholinesterase antibody [EPR18978] (ab183591)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen Rat brain (sagittal section) tissue labeling Acetylcholinesterase with ab183591 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor<sup>®</sup> 488) (ab150077) secondary antibody at 1/1000 dilution (green). The result showed high expression on Rat striatum. The nuclear counterstain is DAPI (blue).

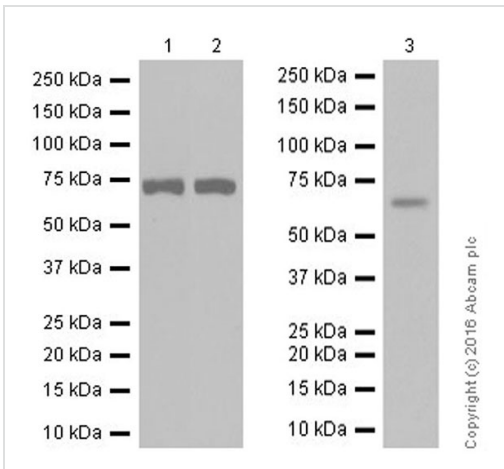
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab150077 at 1/1000 dilution.



Immunohistochemical analysis of paraffin-embedded Rat striatum tissue labeling Acetylcholinesterase with ab183591 at 1/50 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Membrane staining on Rat striatum is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Acetylcholinesterase antibody [EPR18978] (ab183591)



Western blot - Anti-Acetylcholinesterase antibody [EPR18978] (ab183591)

**All lanes** : Anti-Acetylcholinesterase antibody [EPR18978] (ab183591) at 1/1000 dilution

**Lane 1** : Rat striatum lysate

**Lane 2** : Rat hippocampus lysate

**Lane 3** : Rat brain lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

**Predicted band size:** 68 kDa

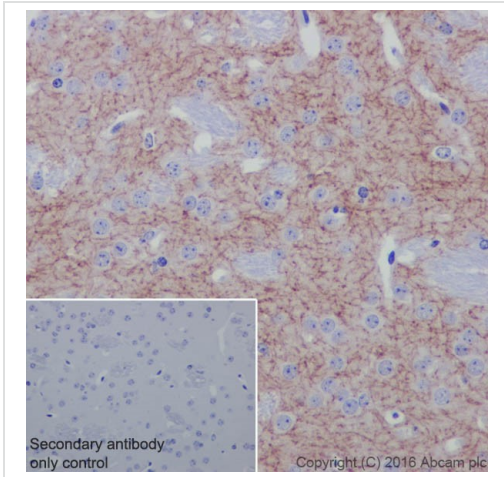
**Observed band size:** 68 kDa

**Exposure time:** 3 minutes

Blocking/Dilution buffer: 5% NFDm/TBST.

Acetylcholinesterase hydrolyzes the acetylcholine at neuromuscular junctions and brain cholinergic synapses, and thus terminates signal

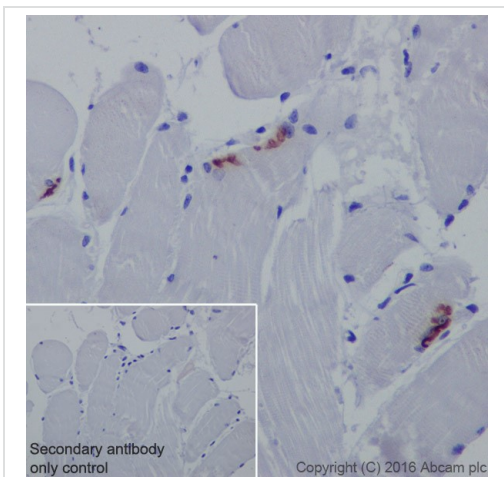
transmission (PMID: 2400605; PMID 8515842).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Acetylcholinesterase antibody [EPR18978] (ab183591)

Immunohistochemical analysis of paraffin-embedded Mouse striatum tissue labeling Acetylcholinesterase with ab183591 at 1/50 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Membrane staining on Mouse striatum is observed. Counter stained with Hematoxylin.

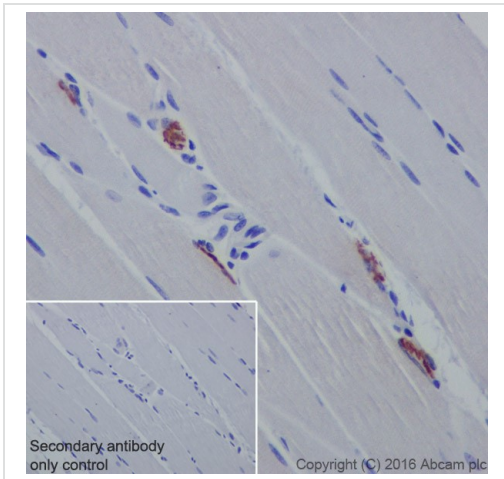
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Acetylcholinesterase antibody [EPR18978] (ab183591)

Immunohistochemical analysis of paraffin-embedded Mouse skeletal muscle tissue labeling Acetylcholinesterase with ab183591 at 1/50 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Positive staining on neuromuscular junction of Mouse skeletal muscle is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.



Immunohistochemical analysis of paraffin-embedded Rat skeletal muscle tissue labeling Acetylcholinesterase with ab183591 at 1/50 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Positive staining on neuromuscular junction of Rat skeletal muscle is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Acetylcholinesterase antibody [EPR18978] (ab183591)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

### Our Abpromise to you: Quality guaranteed and expert technical support

---

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

### Terms and conditions

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors