

Product datasheet

Anti-Acetyl Coenzyme A carboxylase alpha antibody [EPR23235-147] ab269273

Recombinant RabMAb

[1 References](#) [12 Images](#)

Overview

Product name	Anti-Acetyl Coenzyme A carboxylase alpha antibody [EPR23235-147]
Description	Rabbit monoclonal [EPR23235-147] to Acetyl Coenzyme A carboxylase alpha
Host species	Rabbit
Tested applications	Suitable for: IHC-P, Flow Cyt (Intra), IP, ICC/IF, WB Unsuitable for: IHC-Fr
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: 293T, HeLa, PC-12 and C2C12 lysates. IHC-P: Human breast carcinoma and endometrial carcinoma tissue. Mouse and rat lung tissue. ICC/IF: C2C12 and 293T cells. Flow Cyt (intra): C2C12 and 293T cells. IP: C2C12 and 293T cells.
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	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR23235-147
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab269273 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

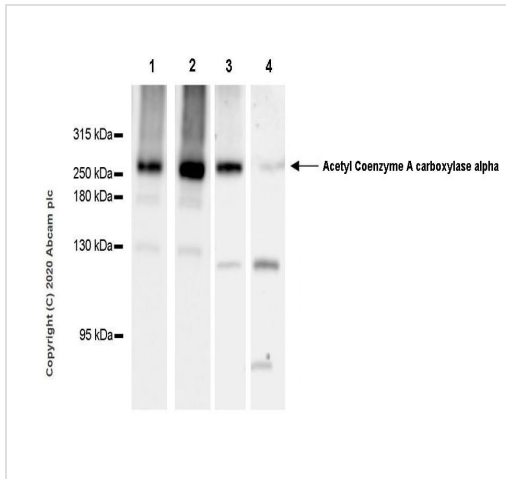
Application	Abreviews	Notes
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
Flow Cyt (Intra)		1/500.
IP		1/30.
ICC/IF		1/50.
WB		1/2000. Predicted molecular weight: 265 kDa.

Application notes Is unsuitable for IHC-Fr.

Target

Function	Catalyzes the rate-limiting reaction in the biogenesis of long-chain fatty acids. Carries out three functions: biotin carboxyl carrier protein, biotin carboxylase and carboxyltransferase.
Tissue specificity	Expressed in brain, placental, skeletal muscle, renal, pancreatic and adipose tissues; expressed at low level in pulmonary tissue; not detected in the liver.
Pathway	Lipid metabolism; malonyl-CoA biosynthesis; malonyl-CoA from acetyl-CoA: step 1/1.
Involvement in disease	Defects in ACACA are a cause of acetyl-CoA carboxylase 1 deficiency (ACACAD) [MIM:200350]; also known as ACAC deficiency or ACC deficiency. An inborn error of de novo fatty acid synthesis associated with severe brain damage, persistent myopathy and poor growth.
Sequence similarities	Contains 1 ATP-grasp domain. Contains 1 biotin carboxylation domain. Contains 1 biotinyl-binding domain. Contains 1 carboxyltransferase domain.
Post-translational modifications	Phosphorylation on Ser-1263 is required for interaction with BRCA1.
Cellular localization	Cytoplasm.

Images



Western blot - Anti-Acetyl Coenzyme A carboxylase alpha antibody [EPR23235-147] (ab269273)

All lanes : Anti-Acetyl Coenzyme A carboxylase alpha antibody [EPR23235-147] (ab269273) at 1/2000 dilution

Lane 1 : 293T (human embryonic kidney epithelial cell), whole cell lysate, in the loading buffer containing double DTT

Lane 2 : HeLa (human cervix adenocarcinoma epithelial cell), whole cell lysate, in the loading buffer containing double DTT

Lane 3 : PC-12 (rat adrenal gland pheochromocytoma), whole cell lysate, in the loading buffer containing double DTT

Lane 4 : C2C12 (mouse myoblasts myoblast), whole cell lysate, in the loading buffer containing double DTT

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) at 1/100000 dilution

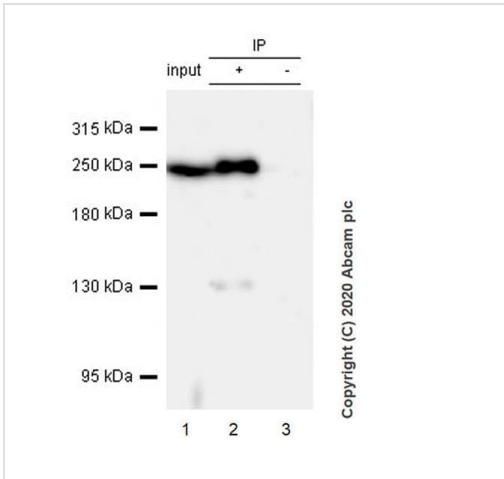
Predicted band size: 265 kDa

Observed band size: 265 kDa

Blocking and diluting buffer and concentration: 5% NFDm/TBST.

This blot of lane 3, 4 was developed using a higher sensitivity ECL substrate.

Exposure time: Lane 1, 2: 26 secs; Lane 3, 4: 3 mins.



Immunoprecipitation - Anti-Acetyl Coenzyme A carboxylase alpha antibody [EPR23235-147] (ab269273)

Acetyl Coenzyme A carboxylase alpha was immunoprecipitated from 0.35 mg C2C12 (mouse myoblasts myoblast), whole cell lysate 10 µg with ab269273 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab269273 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)([ab131366](#)) was used at 1/5000 dilution.

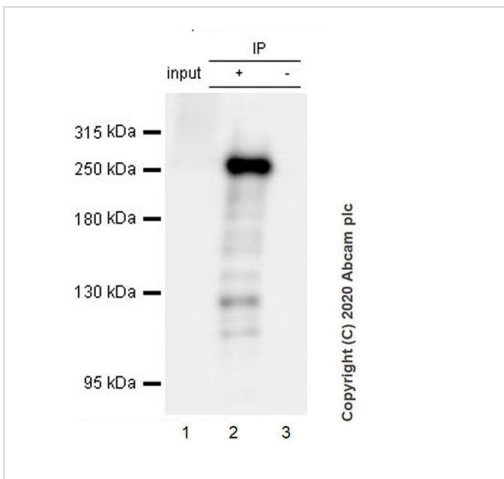
Lane 1: C2C12 whole cell lysate 10 µg.

Lane 2: ab269273 IP in C2C12 whole cell lysate 10 µg.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab269273 in C2C12 whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDm/TBST.

Exposure time: 5 seconds.



Immunoprecipitation - Anti-Acetyl Coenzyme A carboxylase alpha antibody [EPR23235-147] (ab269273)

Acetyl Coenzyme A carboxylase alpha was immunoprecipitated from 0.35 mg 293T (human embryonic kidney epithelial cell), whole cell lysate 10 µg with ab269273 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab269273 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)([ab131366](#)) was used at 1/5000 dilution.

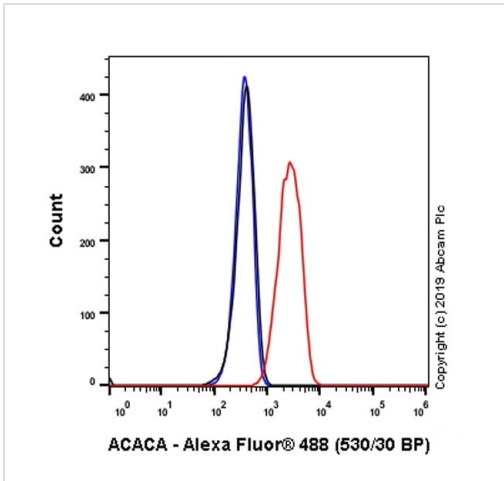
Lane 1: 293T whole cell lysate 10 µg.

Lane 2: ab269273 IP in 293T whole cell lysate.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab269273 in 293T whole cell lysate.

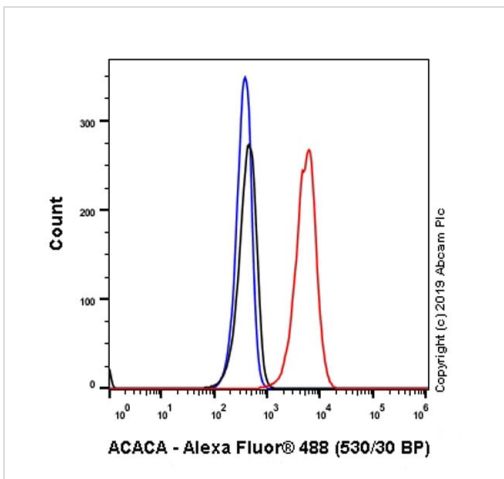
Blocking and dilution buffer and concentration: 5% NFDm/TBST.

Exposure time: 5 seconds.



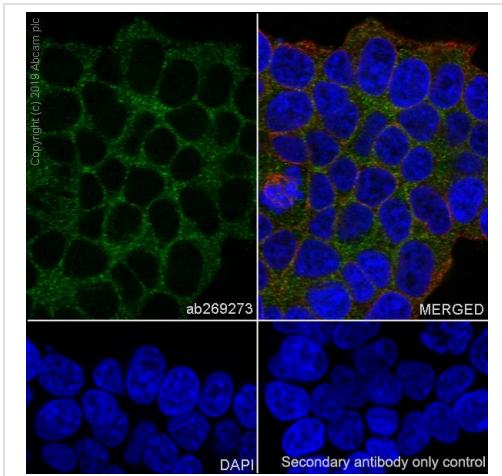
Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized C2C12 (Mouse myoblasts myoblast) cells labelling Acetyl Coenzyme A carboxylase alpha with ab269273 at 1/500 dilution (0.1 µg) (Red) compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor®488, **ab150077**) at 1/2000 dilution was used as the secondary antibody.

Flow Cytometry (Intracellular) - Anti-Acetyl Coenzyme A carboxylase alpha antibody [EPR23235-147] (ab269273)



Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized 293T (Human embryonic kidney epithelial cell) cells labelling Acetyl Coenzyme A carboxylase alpha with ab269273 at 1/500 dilution (0.1 µg) (Red) compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor®488, **ab150077**) at 1/2000 dilution was used as the secondary antibody.

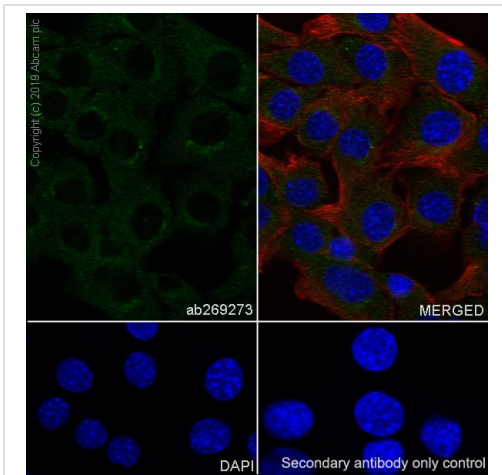
Flow Cytometry (Intracellular) - Anti-Acetyl Coenzyme A carboxylase alpha antibody [EPR23235-147] (ab269273)



Immunocytochemistry/ Immunofluorescence - Anti-Acetyl Coenzyme A carboxylase alpha antibody [EPR23235-147] (ab269273)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized 293T cells labelling Acetyl Coenzyme A carboxylase alpha with ab269273 at 1/50 dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in 293T cell line. **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor[®] 594) was used to counterstain tubulin at 1/200 2.5 µg/ml dilution (Red). The nuclear counterstain was DAPI (Blue).

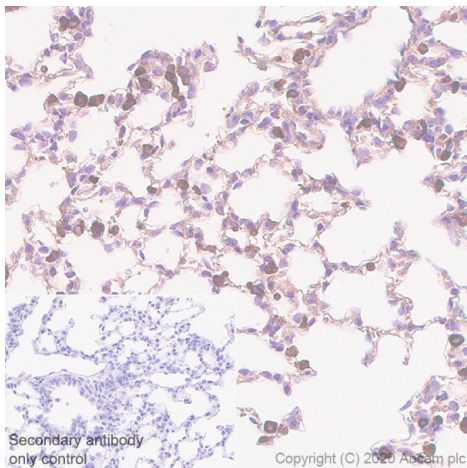
Secondary antibody only control: Secondary antibody is **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor[®]488) at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Acetyl Coenzyme A carboxylase alpha antibody [EPR23235-147] (ab269273)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized C2C12 cells labelling Acetyl Coenzyme A carboxylase alpha with ab269273 at 1/50 dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor[®]488) antibody at 1/1000 2 µg/ml dilution (Green). Confocal image showing cytoplasmic staining in C2C12 cell line. **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor[®]594) was used to counterstain tubulin at 1/200 2.5 µg/ml dilution (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor[®]488) at 1/1000 2 µg/ml dilution.

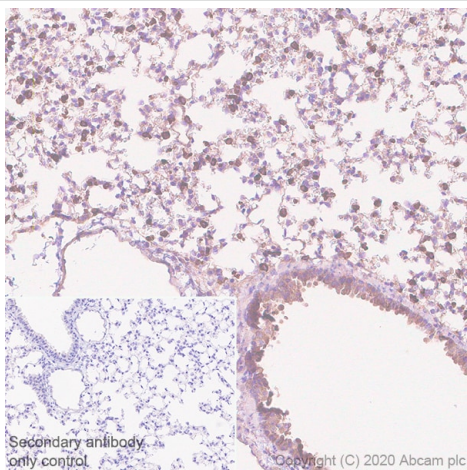


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Acetyl Coenzyme A carboxylase alpha antibody [EPR23235-147] (ab269273)

Immunohistochemical analysis of paraffin-embedded rat lung tissue labeling Acetyl Coenzyme A carboxylase alpha with ab269273 at 1/500 dilution followed by ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining on rat lung (PMID: 17521700). The section was incubated with ab269273 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND[®] RX instrument. Counterstained with hematoxylin.

Secondary antibody only control: Secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

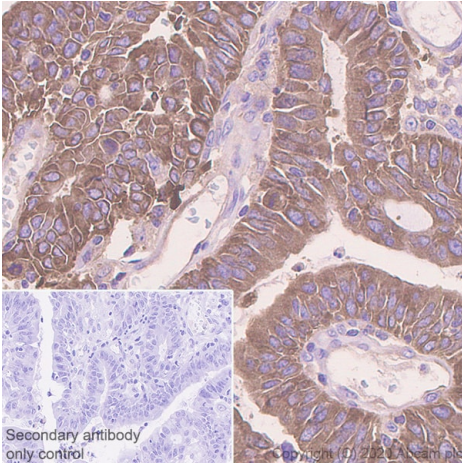


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Acetyl Coenzyme A carboxylase alpha antibody [EPR23235-147] (ab269273)

Immunohistochemical analysis of paraffin-embedded mouse lung tissue labeling Acetyl Coenzyme A carboxylase alpha with ab269273 at 1/500 dilution followed by ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining on mouse lung (PMID: 17521700). The section was incubated with ab269273 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND[®] RX instrument. Counterstained with hematoxylin.

Secondary antibody only control: Secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

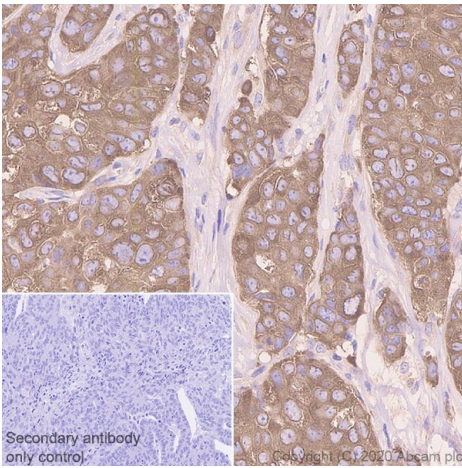


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Acetyl Coenzyme A carboxylase alpha antibody [EPR23235-147] (ab269273)

Immunohistochemical analysis of paraffin-embedded human endometrial carcinoma tissue labeling Acetyl Coenzyme A carboxylase alpha with ab269273 at 1/500 dilution followed by ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Cytoplasmic staining on human endometrial carcinoma. The section was incubated with ab269273 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND[®] RX instrument. Counterstained with hematoxylin.

Secondary antibody only control: Secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Acetyl Coenzyme A carboxylase alpha antibody [EPR23235-147] (ab269273)

Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue labeling Acetyl Coenzyme A carboxylase alpha with ab269273 at 1/500 dilution followed by ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Cytoplasmic staining on human breast carcinoma (PMID: 21415164). The section was incubated with ab269273 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND[®] RX instrument. Counterstained with hematoxylin.

Secondary antibody only control: Secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

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-Acetyl Coenzyme A carboxylase alpha antibody [EPR23235-147] (ab269273)

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