

## Product datasheet

# Anti-ATP citrate lyase (phospho T447 + S451) antibody [EP737Y] ab53007

Recombinant RabMAb

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### Overview

<b>Product name</b>	Anti-ATP citrate lyase (phospho T447 + S451) antibody [EP737Y]
<b>Description</b>	Rabbit monoclonal [EP737Y] to ATP citrate lyase (phospho T447 + S451)
<b>Host species</b>	Rabbit
<b>Specificity</b>	ab53007 only detects ATP-citrate lyase phosphorylated on Threonine 447 and Serine 451.
<b>Tested applications</b>	<b>Suitable for:</b> WB <b>Unsuitable for:</b> Flow Cyt, ICC/IF or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: Untreated and insulin treated NIH/3T3, NIH/3T3, HeLa and C6 whole cell lysates.
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> For more information <a href="#">see here</a> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .

### 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>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), 59% PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal

**Clone number** EP737Y  
**Isotype** IgG

## Applications

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**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab53007 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 100 kDa (predicted molecular weight: 122 kDa).

**Application notes** Is unsuitable for Flow Cyt, ICC/IF or IP.

## Target

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**Function** ATP-citrate synthase is the primary enzyme responsible for the synthesis of cytosolic acetyl-CoA in many tissues. Has a central role in de novo lipid synthesis. In nervous tissue it may be involved in the biosynthesis of acetylcholine.

**Sequence similarities** In the N-terminal section; belongs to the succinate/malate CoA ligase beta subunit family. In the C-terminal section; belongs to the succinate/malate CoA ligase alpha subunit family. Contains 1 ATP-grasp domain.

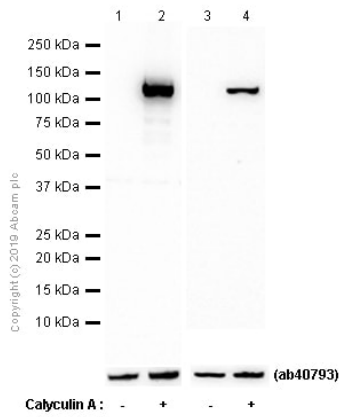
**Post-translational modifications** ISGylated. Acetylated at Lys-540, Lys-546 and Lys-554 by KAT2B/PCAF. Acetylation is promoted by glucose and stabilizes the protein, probably by preventing ubiquitination at the same sites. Acetylation promotes de novo lipid synthesis. Deacetylated by SIRT2. Ubiquitinated at Lys-540, Lys-546 and Lys-554 by UBR4, leading to its degradation. Ubiquitination is probably inhibited by acetylation at same site.

**Cellular localization** Cytoplasm.

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## Images

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Western blot - Anti-ATP citrate lyase (phospho T447 + S451) antibody [EP737Y] (ab53007)

**All lanes :** Anti-ATP citrate lyase (phospho T447 + S451) antibody [EP737Y] (ab53007) at 1/1000 dilution (Purified)

**Lane 1 :** HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

**Lane 2 :** HeLa (Human cervix adenocarcinoma epithelial cell) treated with 100nM Calyculin A for 30 minutes whole cell lysate

**Lane 3 :** NIH/3T3 (Mouse embryonic fibroblast) whole cell lysate

**Lane 4 :** NIH/3T3 (Mouse embryonic fibroblast) treated with 100nM Calyculin A for 15 minutes whole cell lysate

Lysates/proteins at 20 µg per lane.

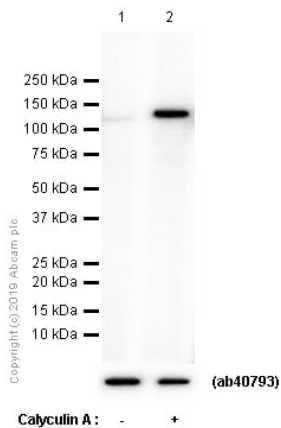
**Secondary**

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

**Predicted band size:** 122 kDa

**Observed band size:** 122 kDa

Blocking/Diluting Buffer and concentration: 5% NFDM/TBST



Western blot - Anti-ATP citrate lyase (phospho T447 + S451) antibody [EP737Y] (ab53007)

**All lanes :** Anti-ATP citrate lyase (phospho T447 + S451) antibody [EP737Y] (ab53007) at 1/1000 dilution (Purified)

**Lane 1 :** C6 (Rat glial tumor glial cell) whole cell lysate

**Lane 2 :** C6 (Rat glial tumor glial cell) treated with 100ng Calyculin A for 60 minutes whole cell lysate

Lysates/proteins at 15 µg per lane.

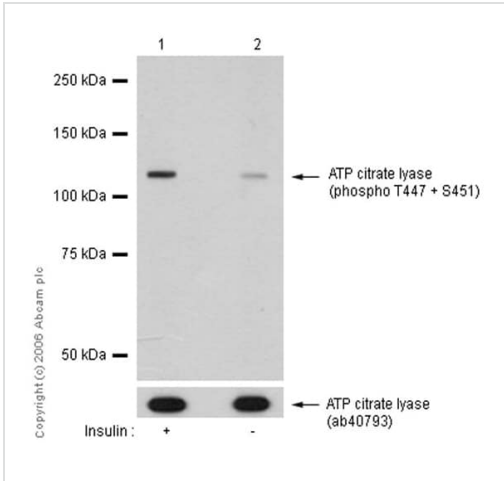
**Secondary**

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

**Predicted band size:** 122 kDa

**Observed band size:** 122 kDa

Blocking/Diluting Buffer and concentration: 5% NFDM/TBST



Western blot - Anti-ATP citrate lyase (phospho T447 + S451) antibody [EP737Y] (ab53007)

**All lanes :** Anti-ATP citrate lyase (phospho T447 + S451) antibody [EP737Y] (ab53007) at 1/1000 dilution (unpurified)

**Lane 1 :** NIH/3T3 (Mouse embryonic fibroblast cell line) treated with insulin whole cell lysate

**Lane 2 :** Untreated NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary





**All lanes :** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/2000 dilution

**Predicted band size:** 122 kDa

**Exposure time:** 3 minutes

**Blocking and diluting buffer:** 5% NFD/MTBST

Why choose a recombinant antibody?

 <b>Research with confidence</b> Consistent and reproducible results	 <b>Long-term and scalable supply</b> Recombinant technology
 <b>Success from the first experiment</b> Confirmed specificity	 <b>Ethical standards compliant</b> Animal-free production

Anti-ATP citrate lyase (phospho T447 + S451) antibody [EP737Y] (ab53007)

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

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