abcam

Product datasheet

Anti-ATP citrate lyase antibody [EP704Y] ab40793

敲除验证 重组 RabMAb

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概述

产品名称	Anti-ATP citrate lyase抗体[EP704Y]
描述	兔单克隆抗体[EP704Y] to ATP citrate lyase
宿主	Rabbit
特异性	This antibody recognises ATP citrate lyase (ACL). The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
经测试应用	**适用于:** IHC-P, Flow Cyt (Intra), ICC/IF, WB, IP
种属反应性	**与反应:** Mouse, Rat, Human **预测可用于:** Common marmoset
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. (Peptide available as **ab207504**)
阳性对照	WB: HeLa cell lysate; NIH/3T3; rat lung; C6 lysates. ICC/IF: HeLa cells. Flow Cyt (intra): HeLa cells. IP: Jurkat cell lysate; HeLa. IHC: Human clear cell carcinoma of kidney
常规说明	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

性能

形式	Liquid
存放说明	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.
存储溶液	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA, 59% PBS

纯度	Protein A purified
克隆	单克隆
克隆编号	EP704Y
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab40793于以下的经测试应用**

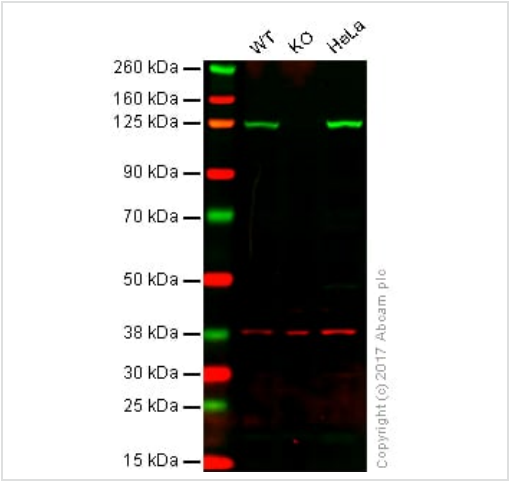
"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
IHC-P		Use at an assay dependent concentration.
Flow Cyt (Intra)		1/30. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. For unpurified use at 1/100.
ICC/IF		1/50.
WB	★★★★☆ **(2)**	1/10000. Detects a band of approximately 125 kDa (predicted molecular weight: 122 kDa).Can be blocked with **ATP citrate lyase peptide (ab207504)**. **For unpurified use at 1/1000 - 1/5000.**
IP		1/20.

靶标

功能	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.
序列相似性	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.
翻译后修饰	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.
细胞定位	Cytoplasm.

图片

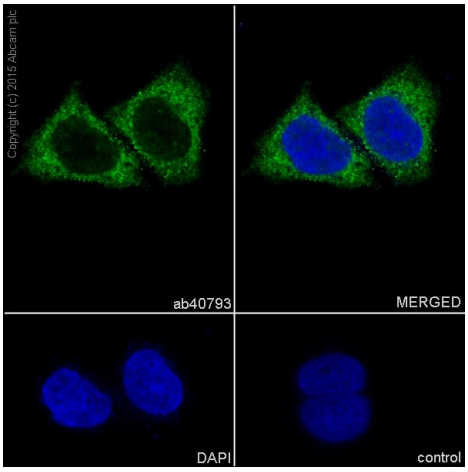


Western blot - Anti-ATP citrate lyase antibody [EP704Y] (ab40793)

Lane 1: Wild-type HAP1 whole cell lysate (20 µg)
Lane 2: ATP citrate lyase knockout HAP1 whole cell lysate (20 µg)
Lane 3: HeLa whole cell lysate (20 µg)

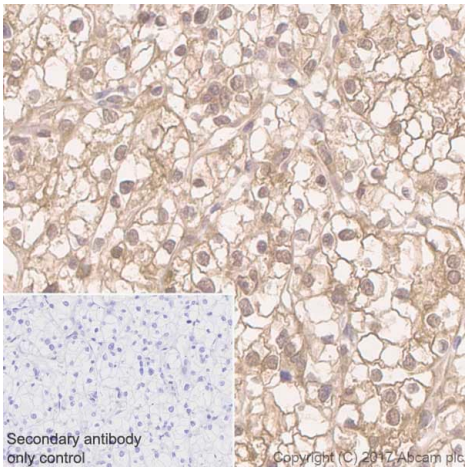
Lanes 1 - 3: Merged signal (red and green). Green - ab40793 observed at 125 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

Unpurified ab40793 was shown to specifically react with ATP citrate lyase in wild-type HAP1 cells as signal was lost in ATP citrate lyase knockout cells. Wild-type and ATP citrate lyase knockout samples were subjected to SDS-PAGE. ab40793 and **ab9484** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



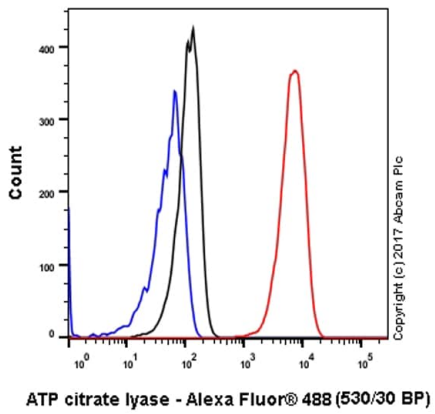
Immunocytochemistry/ Immunofluorescence - Anti-ATP citrate lyase antibody [EP704Y] (ab40793)

Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling ATP citrate lyase with purified ab40793 at 1/50. Cells were fixed with 100% methanol. **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody.
Control: PBS only.
Nuclear counter stain: DAPI.



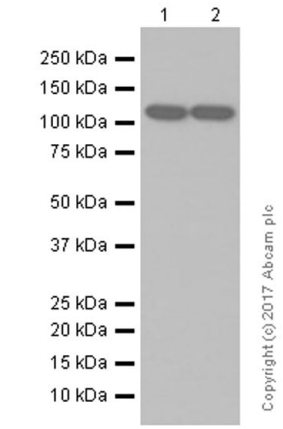
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATP citrate lyase antibody [EP704Y] (ab40793)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human clear cell carcinoma of kidney tissue sections labeling ATP citrate lyase with Purified ab40793 at 1:100 dilution. Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.



Flow Cytometry (Intracellular) - Anti-ATP citrate lyase antibody [EP704Y] (ab40793)

Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling ATP citrate lyase with purified ab40793 at 1/30 dilution (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Western blot - Anti-ATP citrate lyase antibody [EP704Y] (ab40793)

All lanes : Anti-ATP citrate lyase antibody [EP704Y] (ab40793) at 1/50000 dilution (purified)

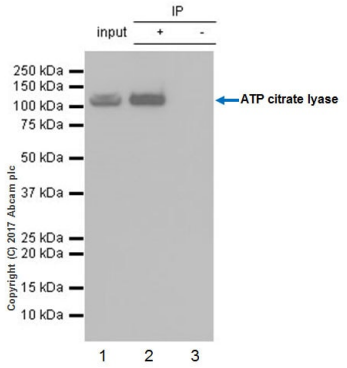
Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 2 : NIH/3T3 (Mouse embryonic fibroblast) whole cell lysates

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

Blocking and diluting buffer: 5% NFDM/TBST.

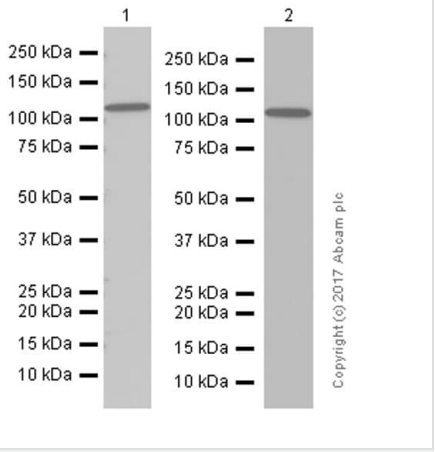


Immunoprecipitation - Anti-ATP citrate lyase antibody [EP704Y] (ab40793)

ab40793 (purified) at 1:20 dilution (1.5µg) immunoprecipitating ATP citrate lyase in HeLa whole cell lysate.

Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate,10µg
Lane 2 (+): ab40793 & HeLa whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab40793 in HeLa whole cell lysate.

For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used for detection at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.



Western blot - Anti-ATP citrate lyase antibody [EP704Y] (ab40793)

All lanes : Anti-ATP citrate lyase antibody [EP704Y] (ab40793) at 1/10000 dilution (purified)

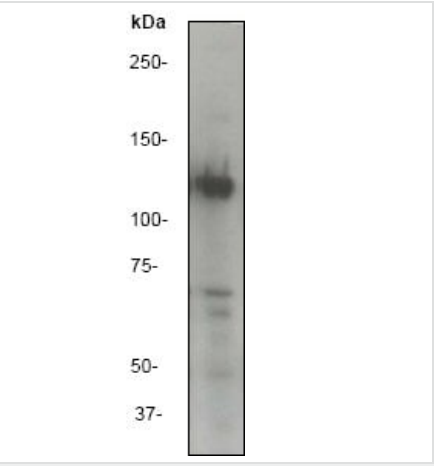
Lane 1 : Rat lung lysates
Lane 2 : C6 (Rat glial tumor glial cell) whole cell lysate

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

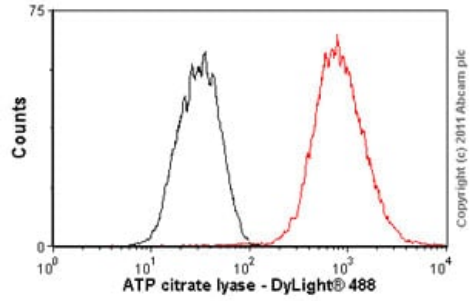
Blocking and diluting buffer: 5% NFDM/TBST.



Western blot - Anti-ATP citrate lyase antibody [EP704Y] (ab40793)

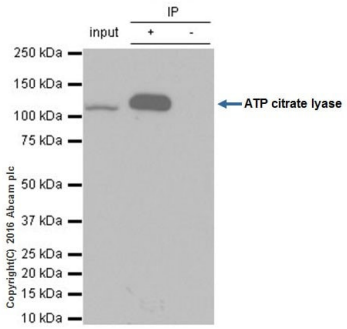
Anti-ATP citrate lyase antibody [EP704Y] (ab40793) at 1/5000 dilution (unpurified) + HeLa cell lysate

Predicted band size: 122 kDa
Observed band size: 122 kDa



Flow Cytometry (Intracellular) - Anti-ATP citrate lyase antibody [EP704Y] (ab40793)

Overlay histogram showing HeLa cells stained withunpurified ab40793 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab40793, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (**ab96899**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.



Immunoprecipitation - Anti-ATP citrate lyase antibody [EP704Y] (ab40793)

Unpurified ab40793 at 1/40 immunoprecipitating ATP citrate lyase in HeLa (human cervix adenocarcinoma) whole cell lysate.

Lane 1 (input): HeLa (human cervix adenocarcinoma) whole cell lysate 10µg

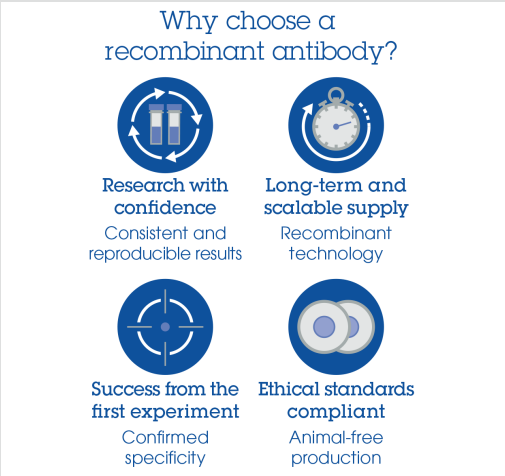
Lane 2 (+): ab40793 + HeLa (human cervix adenocarcinoma) whole cell lysate

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab40793 in HeLa (human cervix adenocarcinoma) whole cell lysate

For western blotting, ab40793 at 1/1000 dilution and **ab131366** VeriBlot for IP (HRP) was used for detection at 1/10000.

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.



Anti-ATP citrate lyase antibody [EP704Y] (ab40793)

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