


Anti-ACAT1 antibody ab154396

[1 References](#) [6 Images](#)

Overview

Product name	Anti-ACAT1 antibody
Description	Rabbit polyclonal to ACAT1
Host species	Rabbit
Tested applications	Suitable for: WB, ICC/IF, IHC-P
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Cow 
Immunogen	Recombinant fragment corresponding to Human ACAT1 aa 1-151. Database link: P24752
Positive control	WB: SW480, HepG2, Jurkat, HEK-293T, A431 and Molt-4 whole cell lysate. Mouse brain whole cell lysate. ICC/IF: HeLa and A431 cells. IHC-P: Human normal kidney tissue.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 1.21% Tris, 0.75% Glycine, 10% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab154396 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		1/500 - 1/3000. Predicted molecular weight: 45 kDa.
ICC/IF		1/100 - 1/1000.
IHC-P		1/100 - 1/1000.

Target

Function

Plays a major role in ketone body metabolism.

Involvement in disease

Defects in ACAT1 are a cause of 3-ketothiolase deficiency (3KTD) [MIM:203750]; also known as alpha-methylacetoaceticaciduria. 3KTD is an inborn error of isoleucine catabolism characterized by intermittent ketoacidotic attacks associated with unconsciousness. Some patients die during an attack or are mentally retarded. Urinary excretion of 2-methyl-3-hydroxybutyric acid, 2-methylacetoacetic acid, triglylglycine, butanone is increased. It seems likely that the severity of this disease correlates better with the environmental or acquired factors than with the ACAT1 genotype.

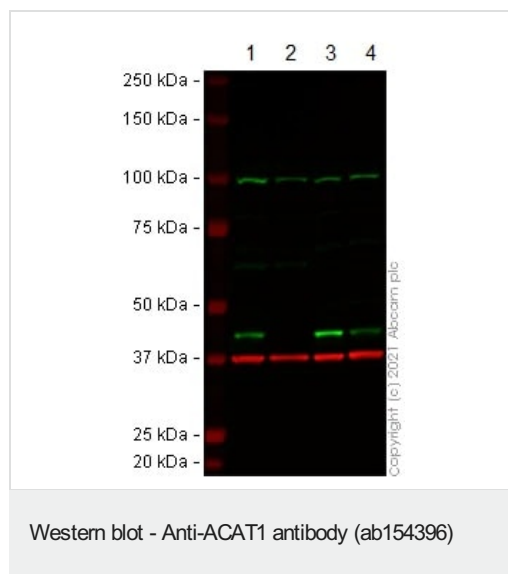
Sequence similarities

Belongs to the thiolase family.

Cellular localization

Mitochondrion.

Images



All lanes : Anti-ACAT1 antibody (ab154396) at 1/500 dilution

Lane 1 : Wild-type SW480 cell lysate

Lane 2 : ACAT1 CRISPR/Cas9 edited SW480 cell lysate

Lane 3 : HepG2 cell lysate

Lane 4 : Jurkat cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

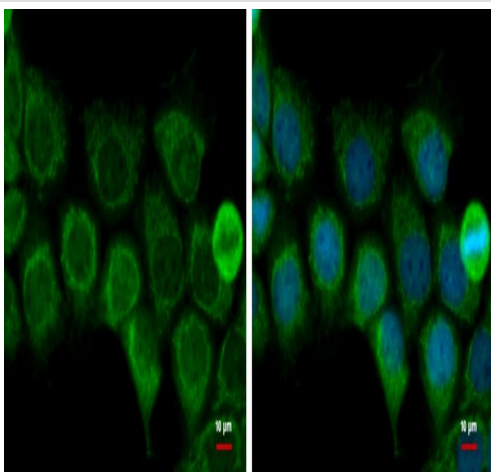
Predicted band size: 45 kDa

Observed band size: 45 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab154396

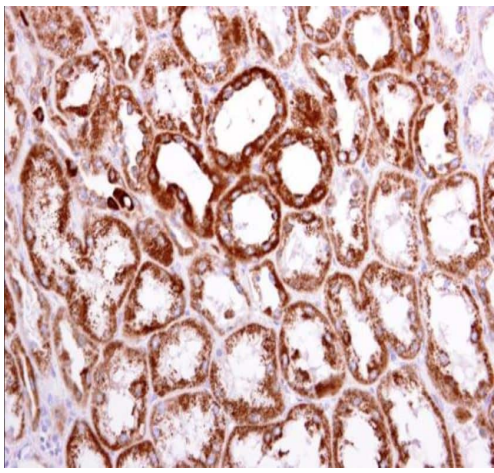
observed at 45 kDa. Red - loading control, **ab8245** (Mouse anti-GAPDH antibody [6C5]) observed at 37 kDa.

ab154396 was shown to react with ACAT1 in western blot. The band observed in the knockout cell line **ab269621** (knockout cell lysate **ab272431**) lane below 45 kDa is likely to represent a truncated form. This has not been investigated further. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween®) before incubation with ab154396 and **ab8245** (Mouse anti-GAPDH antibody [6C5]) overnight at 4°C at a 1 in 500 dilution and a 1 in 20000 dilution respectively. Blots were incubated 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 in 20000 dilution for 1 h at room temperature before imaging.



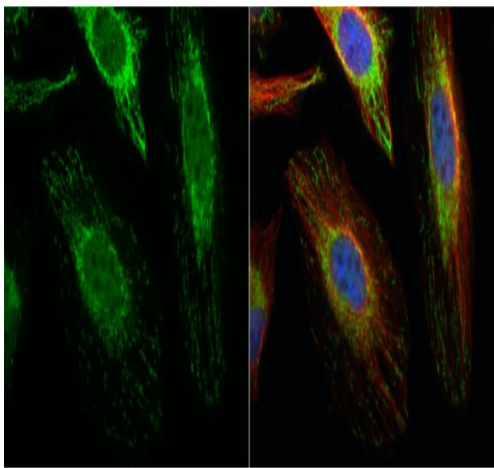
A431 cells stained for ACAT1 using ab154396 at 1/1000 dilution in ICC/IF.

Immunocytochemistry/ Immunofluorescence - Anti-ACAT1 antibody (ab154396)



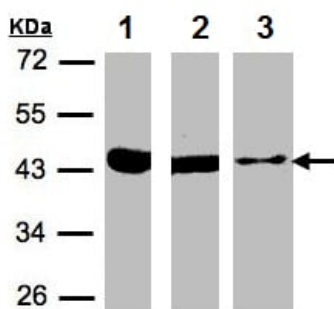
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ACAT1 antibody (ab154396)

Paraffin embedded human normal kidney tissue stained for ACAT1 using ab154396 at 1/1000 dilution in immunohistochemical analysis.



Immunocytochemistry/ Immunofluorescence - Anti-ACAT1 antibody (ab154396)

HeLa cells stained for ACAT1 using ab154396 at 1/1000 dilution in ICC/IF.



Western blot - Anti-ACAT1 antibody (ab154396)

All lanes : Anti-ACAT1 antibody (ab154396) at 1/500 dilution

Lane 1 : HEK-293T whole cell lysate

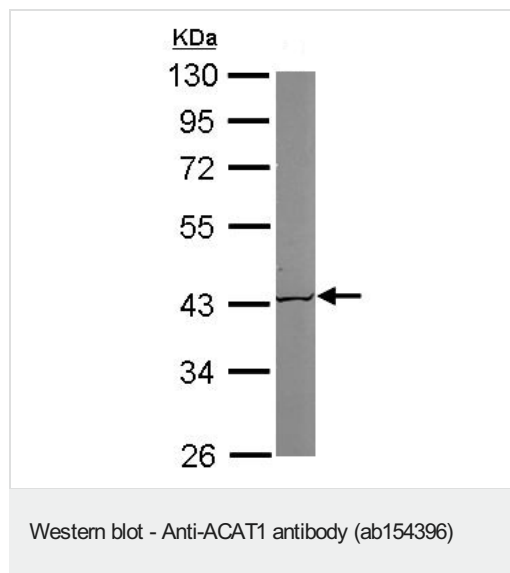
Lane 2 : A431 whole cell lysate

Lane 3 : Molt-4 whole cell lysate

Lysates/proteins at 30 µg per lane.

Predicted band size: 45 kDa

10% SDS PAGE



Anti-ACAT1 antibody (ab154396) at 1/1000 dilution + Mouse brain whole cell lysate at 50 µg

Predicted band size: 45 kDa

10% SDS PAGE

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