

**ACAT1 Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP7560b****Specification**

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**ACAT1 Antibody (C-term) - Product Information**

Application	<b>WB, IHC-P,E</b>
Primary Accession	<a href="#">P24752</a>
Other Accession	<a href="#">Q8HXY6</a>
Reactivity	<b>Human, Mouse</b>
Predicted	<b>Monkey</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Calculated MW	<b>45200</b>
Antigen Region	<b>296-329</b>

**ACAT1 Antibody (C-term) - Additional Information****Gene ID** 38**Other Names**

Acetyl-CoA acetyltransferase, mitochondrial, Acetoacetyl-CoA thiolase, T2, ACAT1, ACAT, MAT

**Target/Specificity**

This ACAT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 296-329 amino acids from the C-terminal region of human ACAT1.

**Dilution**WB~~1:1000  
IHC-P~~1:10~50**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

ACAT1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**ACAT1 Antibody (C-term) - Protein Information****Name** ACAT1

## Synonyms ACAT, MAT

**Function** This is one of the enzymes that catalyzes the last step of the mitochondrial beta-oxidation pathway, an aerobic process breaking down fatty acids into acetyl-CoA (PubMed:[1715688](#), PubMed:[7728148](#), PubMed:[9744475](#)). Using free coenzyme A/CoA, catalyzes the thiolitic cleavage of medium- to long-chain 3-oxoacyl-CoAs into acetyl-CoA and a fatty acyl-CoA shortened by two carbon atoms (PubMed:[1715688](#), PubMed:[7728148](#), PubMed:[9744475](#)). The activity of the enzyme is reversible and it can also catalyze the condensation of two acetyl-CoA molecules into acetoacetyl-CoA (PubMed:[17371050](#)). Thereby, it plays a major role in ketone body metabolism (PubMed:[1715688](#), PubMed:[17371050](#), PubMed:[7728148](#), PubMed:[9744475](#)).

## Cellular Location

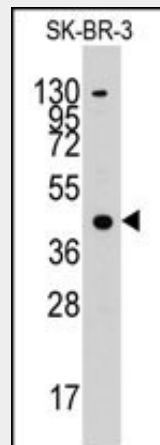
Mitochondrion.

## ACAT1 Antibody (C-term) - Protocols

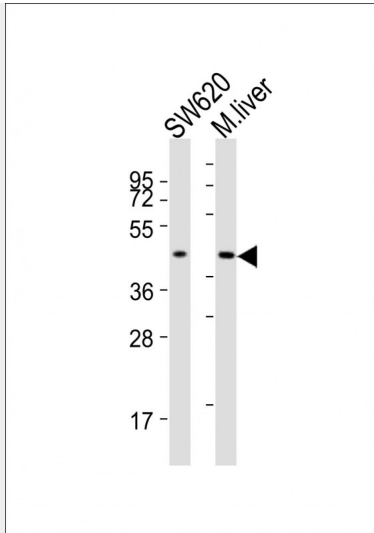
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

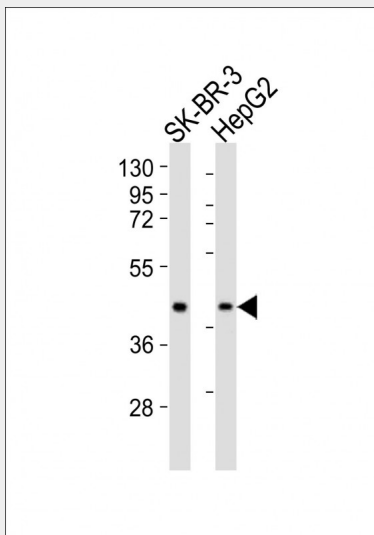
## ACAT1 Antibody (C-term) - Images



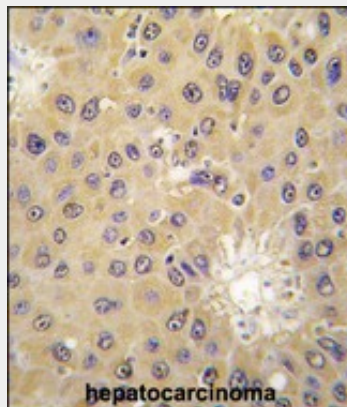
Western blot analysis of anti-ACAT1 Pab (Cat.#AP7560b) in SK-BR-3 cell line lysates (35ug/lane). ACAT1 (arrow) was detected using the purified Pab.



All lanes : Anti-ACAT1 Antibody (C-term) at 1:2000 dilution Lane 1: SW620 whole cell lysates Lane 2: mouse liver lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 45. 2 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-ACAT1 Antibody (C-term) at 1:1000 dilution Lane 1: SK-BR-3 whole cell lysates Lane 2: HepG2 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 45. 2 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with ACAT1 antibody (C-term) (Cat.#AP7560b), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

#### **ACAT1 Antibody (C-term) - Background**

ACAT1 is a mitochondrially localized enzyme that catalyzes the reversible formation of acetoacetyl-CoA from two molecules of acetyl-CoA. Defects in the gene encoding ACAT1 are associated with the alpha-methylacetoaceticaciduria disorder, an inborn error of isoleucine catabolism characterized by urinary excretion of 2-methyl-3-hydroxybutyric acid, 2-methylacetoacetic acid, tiglylglycine, and butanone.

#### **ACAT1 Antibody (C-term) - References**

- Locke, J.A., *Prostate* 68 (1), 20-33 (2008)  
Guo, Z.Y., *Biochemistry* 46 (35), 10063-10071 (2007)  
Haapalainen, A.M., *Biochemistry* 46 (14), 4305-4321 (2007)