

**ACAT1 Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AW5517**

**Specification**

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

Application	WB, IHC-P,E
Primary Accession	<a href="#">P24752</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	H=45.2 KDa
Isotype	Rabbit IgG
Antigen Source	HUMAN

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

**Gene ID** 38

**Antigen Region**  
311-349

**Other Names**

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

**Dilution**

WB~~1:1000  
IHC-P~~1:10~50

**Target/Specificity**

This ACAT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 296-349 amino acids from the C-terminal region of human ACAT1.

**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:<a href="http://www.uniprot.org/citations/1715688" target="\_blank">1715688</a>, PubMed:<a href="http://www.uniprot.org/citations/7728148" target="\_blank">7728148</a>, PubMed:<a href="http://www.uniprot.org/citations/9744475" target="\_blank">9744475</a>). Using free coenzyme A/CoA, catalyzes the thiolytic cleavage of medium- to long-chain 3-oxoacyl-CoAs into acetyl-CoA and a fatty acyl-CoA shortened by two carbon atoms (PubMed:<a href="http://www.uniprot.org/citations/1715688" target="\_blank">1715688</a>, PubMed:<a href="http://www.uniprot.org/citations/7728148" target="\_blank">7728148</a>, PubMed:<a href="http://www.uniprot.org/citations/9744475" target="\_blank">9744475</a>). The activity of the enzyme is reversible and it can also catalyze the condensation of two acetyl-CoA molecules into acetoacetyl-CoA (PubMed:<a href="http://www.uniprot.org/citations/17371050" target="\_blank">17371050</a>). Thereby, it plays a major role in ketone body metabolism (PubMed:<a href="http://www.uniprot.org/citations/1715688" target="\_blank">1715688</a>, PubMed:<a href="http://www.uniprot.org/citations/17371050" target="\_blank">17371050</a>, PubMed:<a href="http://www.uniprot.org/citations/7728148" target="\_blank">7728148</a>, PubMed:<a href="http://www.uniprot.org/citations/9744475" target="\_blank">9744475</a>).

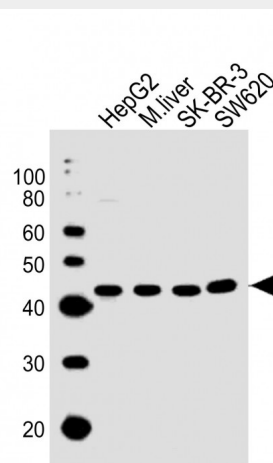
**Cellular Location**  
Mitochondrion.

### ACAT1 Antibody (C-term) - Protocols

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

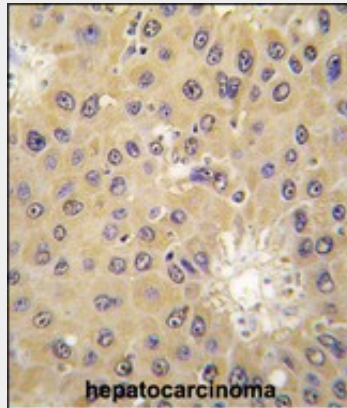
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### ACAT1 Antibody (C-term) - Images



All lanes : Anti-ACAT1 Antibody (C-term) at 1:1000 dilution Lane 1: HepG2 whole cell lysates Lane

2: mouse liver lysates Lane 3: SK-BR-3 whole cell lysates Lane 4: SW620 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 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with ACAT1 antibody (C-term) (Cat.#AW5517), 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)