10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# ACAT1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5517

## Product Information

| | |
|---|---|
| **Application** | IHC-P, WB |
| **Primary Accession** | P24752 |
| **Reactivity** | Human, Mouse |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 45200 |
| **Isotype** | Rabbit IgG |
| **Antigen Source** | HUMAN |

## Additional Information

| | |
|---|---|
| **Gene ID** | 38 |
| **Antigen Region** | 311-349 |
| **Other Names** | Acetyl-CoA acetyltransferase, mitochondrial, Acetoacetyl-CoA thiolase, T2, ACAT1, ACAT, MAT |
| **Dilution** | IHC-P~~1:100~500 WB~~1:1000 |
| **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. |
| **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. |

## 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 thiolytic 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.

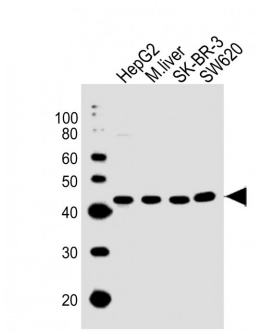
## Background

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.

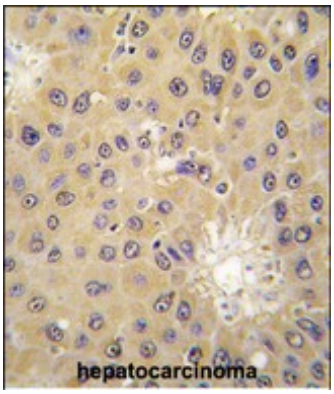
## References

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)

## 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.