

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

Specification

ACAT1 Antibody (C-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	P24752
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: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).

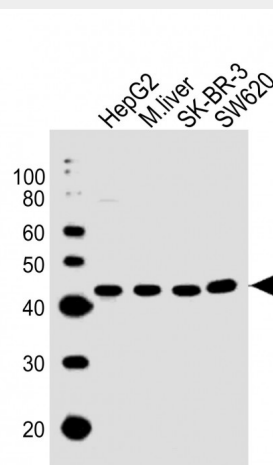
Cellular Location
Mitochondrion.

ACAT1 Antibody (C-term) - Protocols

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

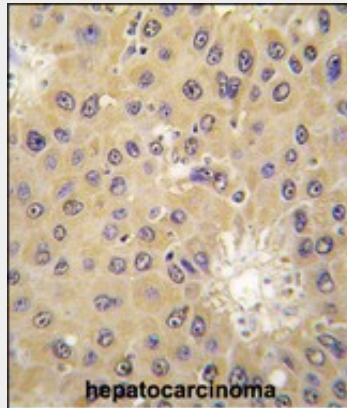
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

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)