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ACAT1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7560b

Product Information

Application	WB, IHC-P, E
Primary Accession	P24752
Other Accession	Q8HXY6
Reactivity	Human, Mouse
Predicted	Monkey, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB14644
Calculated MW	45200
Antigen Region	296-329

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~~1:100~500 E~~Use at an assay dependent concentration.
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.

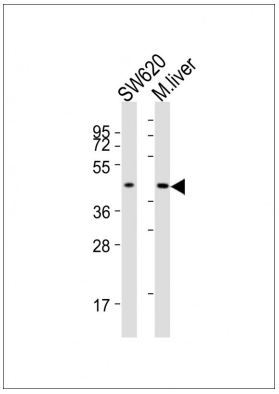
Background

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.

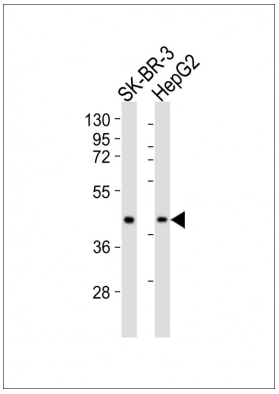
References

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

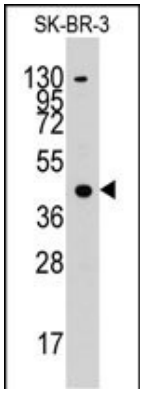


All lanes : Anti-ACAT1 Antibody (C-term) at 1:2000 dilution Lane 1: SW620 whole cell lysates Lane 2: mouse liver lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 45. 2 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

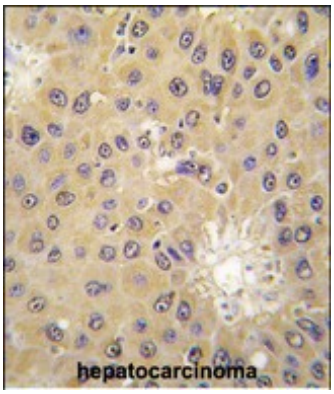


All lanes : Anti-ACAT1 Antibody (C-term) at 1:1000 dilution Lane 1: SK-BR-3 whole cell lysates Lane 2: HepG2 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 45. 2 kDa Blocking/Dilution buffer: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

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.



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.

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