Product Name: ACAT-1 Rabbit Polyclonal Antibody
Catalog #: APRab06470
For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:20000-1:40000
Molecular Weight	45kDa

Antigen Information

Gene Name	ACAT1
Alternative Names	ACAT1; ACAT; MAT; Acetyl-CoA acetyltransferase; mitochondrial; Acetoacetyl-CoA thiolase; T2
Gene ID	38.0
SwissProt ID	P24752
Immunogen	The antiserum was produced against synthesized peptide derived from human ACAT1. AA range:221-270

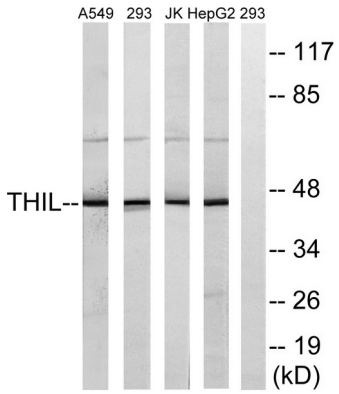
Background

This gene encodes a mitochondrially localized enzyme that catalyzes the reversible formation of acetoacetyl-CoA from two molecules of acetyl-CoA. Defects in this gene are associated with 3-ketothiolase deficiency, an inborn error of isoleucine catabolism characterized by urinary excretion of 2-methyl-3-hydroxybutyric acid, 2-methylacetoacetic acid, tiglylglycine, and butanone. [provided by RefSeq, Feb 2009],catalytic activity:2 acetyl-CoA = CoA + acetoacetyl-CoA.,disease:Defects in ACAT1 are a cause of 3-ketothiolase deficiency (3KTD) [MIM:203750]; also known as alpha-methylacetoaceticaciduria. 3KTD is an inborn error of isoleucine catabolism characterized by intermittent ketoacidotic attacks associated with unconsciousness. Some patients die during an attack or are mentally retarded. Urinary excretion of 2-methyl-3-hydroxybutyric acid, 2-methylacetoacetic acid, triglylglycine, butanone is increased. It seems likely that the severity of this disease correlates better with the environmental or acquired factors than with the ACAT1 genotype.,enzyme regulation:Activated by potassium ions, but not sodium ions.,function:Plays a major role in ketone body metabolism.,similarity:Belongs to the thiolase family.,subunit:Homotetramer.,

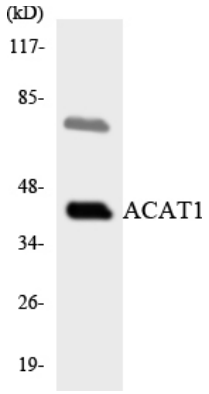
Research Area

Fatty acid metabolism;Synthesis and degradation of ketone bodies;Valine; leucine and isoleucine degradation;Lysine degradation;Tryptophan metabolism;Pyruvate metabolism;Propanoate metabolism;Butanoate metabolism;Terpenoid backbone biosynthesis;

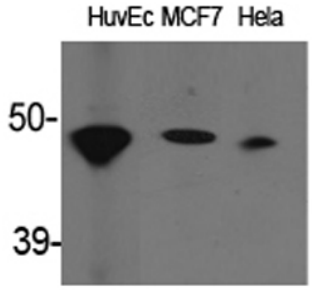
Image Data



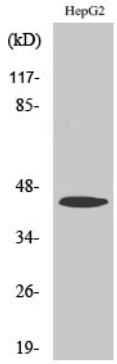
Western blot analysis of lysates from HepG2, Jurkat, 293, and A549 cells, using ACAT1 Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from HepG2 cells using ACAT1 antibody.



Western Blot analysis of various cells using ACAT-1 Polyclonal Antibody



Western Blot analysis of A549 cells using ACAT-1 Polyclonal Antibody