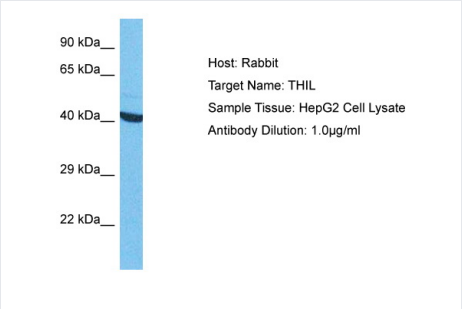
ACAT1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ACAT1, Polyclonal Antibody
Full Product Name	ACAT1 Antibody - middle region
Product Gene Name	anti-ACAT1 antibody
Product Synonym Gene Name	T2; MAT; ACAT; THIL;
Immunogen Sequence	Synthetic peptide located within the following region: AKKLNIARNE QDAYAINSYT RSKAAWEAGK FGNEVIPVTV TVKGQPDVVV
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Purity/Purification	Affinity purified
Preparation and Storage	For short term use, store at 2-8 degree C up to 1 week. For long term storage, store at -20 degree C in small aliquots to prevent freeze-thaw cycles.
Antibody/Peptide Pairs	ACAT1 peptide (MBS3244510) is used for blocking the activity of ACAT1 antibody (MBS3219643)
Molecular Weight	46 kDa
OMIM	203750
3D Structure	ModBase 3D Structure for P24752
Immunogen	The immunogen for Anti-ACAT1 antibody is: synthetic peptide directed towards the middle region of Human THIL
Product Categories/Family for anti-ACAT1 antibody	Polyclonal; Cell Biology; Mitochondria; Signal Transduction; Various; Epigenetics; E3 & Ubiquitin; Disease Related
Applications Tested/Suitable for anti-ACAT1 antibody	Western Blot (WB)
Related Product Information for anti-ACAT1 antibody	This is a rabbit polyclonal antibody against THIL. It was validated on Western Blot Target Description: 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.
Other Notes	Small volumes of anti-ACAT1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ACAT1 purchase	MBS3219643 is an antibody targeting ACAT1. Also known as ACAT1 Antibody - middle region. Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-ACAT1 antibody
WB Suggested Anti-THIL antibody Titration: 1 ug/mLSample Type: Human HepG2 Whole Cell

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ACAT1. It may not necessarily be applicable to this product.

NCBI GI #	4557237
NCBI GeneID	38
NCBI Accession #	NP_000010.1
UniProt Primary Accession #	P24752
UniProt Related Accession #	P24752
GenBank Nucleotide #	NM_000019.3
NCBI Official Full Name	acetyl-CoA acetyltransferase, mitochondrial
NCBI Official Synonym Full Names	acetyl-CoA acetyltransferase 1
NCBI Official Symbol	ACAT1
NCBI Official Synonym Symbols	T2; MAT; ACAT; THIL
UniProt Protein Name	Acetyl-CoA acetyltransferase, mitochondrial
UniProt Synonym Protein Names	Acetoacetyl-CoA thiolase; T2
UniProt Gene Name	ACAT1
UniProt Synonym Gene Names	ACAT; MAT
UniProt Entry Name	THIL_HUMAN
NCBI Protein Information	acetyl-CoA acetyltransferase, mitochondrial
NCBI Summary for ACAT1	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]

UniProt Comments for ACAT1	ACAT1: Plays a major role in ketone body metabolism. Defects in ACAT1 are a cause of 3-ketothiolase deficiency (3KTD); 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. Belongs to the thiolase family. Protein type: Mitochondrial; Lipid Metabolism - synthesis and degradation of ketone bodies; Carbohydrate Metabolism - pyruvate; Amino Acid Metabolism - lysine degradation; Secondary Metabolites Metabolism - terpenoid backbone biosynthesis; Carbohydrate Metabolism - propanoate; Carbohydrate Metabolism - butanoate; EC 2.3.1.9; Lipid Metabolism - fatty acid; Amino Acid Metabolism - valine, leucine and isoleucine degradation; Acetyltransferase; Amino Acid Metabolism - tryptophan Chromosomal Location of Human Ortholog: 11q22.3 Cellular Component: mitochondrion; mitochondrial matrix; mitochondrial inner membrane Molecular Function: protein homodimerization activity; enzyme binding; acetyl-CoA C-acetyltransferase activity; metal ion binding; coenzyme binding Biological Process: response to starvation; ketone body catabolic process; response to hormone stimulus; ketone body biosynthetic process; branched chain family amino acid catabolic process; cellular lipid metabolic process; brain development; ketone body metabolic process; liver development; response to organic cyclic substance; protein homooligomerization Disease: Alpha-methylacetoacetic Aciduria
Research Articles on ACAT1	**1.** Silencing ACAT1 attenuates Abeta-induced cytotoxicity and cell apoptosis in SH-SY5Y cells, which may due to the synergistic effect of ACAT1 and COX2 through PKC/ERK pathways.
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