

**Goat Anti-ACAT1 (aa253-266) Antibody**  
Peptide-affinity purified goat antibody  
Catalog # AF2222a**Specification**

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**Goat Anti-ACAT1 (aa253-266) Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P24752</a>
Other Accession	<a href="#">NP_000010</a> , <a href="#">38</a> , <a href="#">110446 (mouse)</a> , <a href="#">25014 (rat)</a>
Reactivity	Human, Mouse, Rat
Predicted	Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	45200

**Goat Anti-ACAT1 (aa253-266) Antibody - Additional Information****Gene ID** 38**Other Names**

Acetyl-CoA acetyltransferase, mitochondrial, 2.3.1.9, Acetoacetyl-CoA thiolase, T2, ACAT1, ACAT, MAT

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-ACAT1 (aa253-266) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-ACAT1 (aa253-266) Antibody - 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:&lt;a href="http://www.uniprot.org/citations/1715688" target="\_blank"&gt;1715688&lt;/a&gt;, PubMed:&lt;a href="http://www.uniprot.org/citations/1715688" target="\_blank"&gt;1715688&lt;/a&gt;)

[7728148](http://www.uniprot.org/citations/7728148), PubMed: [9744475](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/1715688), PubMed: [7728148](http://www.uniprot.org/citations/7728148), PubMed: [9744475](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/17371050)). Thereby, it plays a major role in ketone body metabolism (PubMed: [1715688](http://www.uniprot.org/citations/1715688), PubMed: [17371050](http://www.uniprot.org/citations/17371050), PubMed: [7728148](http://www.uniprot.org/citations/7728148), PubMed: [9744475](http://www.uniprot.org/citations/9744475)).

### Cellular Location

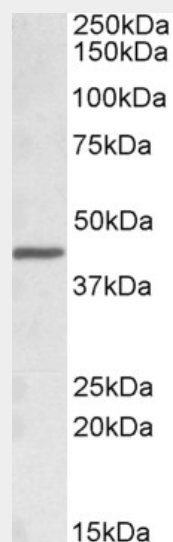
Mitochondrion.

### Goat Anti-ACAT1 (aa253-266) Antibody - 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](#)

### Goat Anti-ACAT1 (aa253-266) Antibody - Images



AF2222a (0.1 µg/ml) staining of Mouse Liver lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

### Goat Anti-ACAT1 (aa253-266) Antibody - 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.

### **Goat Anti-ACAT1 (aa253-266) Antibody - References**

Physiogenomic analysis of statin-treated patients: domain-specific counter effects within the ACACB gene on low-density lipoprotein cholesterol? Ruaño G, et al. Pharmacogenomics, 2010 Jul. PMID 20602615.

Cholesterol loading in macrophages stimulates formation of ER-derived vesicles with elevated ACAT1 activity. Sakashita N, et al. J Lipid Res, 2010 Jun. PMID 20460577.

Analysis of lipid pathway genes indicates association of sequence variation near SREBF1/TOM1L2/ATPAF2 with dementia risk. Reynolds CA, et al. Hum Mol Genet, 2010 May 15. PMID 20167577.

A common mutation, R208X, identified in Vietnamese patients with mitochondrial acetoacetyl-CoA thiolase (T2) deficiency. Fukao T, et al. Mol Genet Metab, 2010 May. PMID 20156697.

Different clinical presentation in siblings with mitochondrial acetoacetyl-CoA thiolase deficiency and identification of two novel mutations. Thimmmler S, et al. Tohoku J Exp Med, 2010 Jan. PMID 20046049.