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Goat Anti-ACAT1 (aa253-266) Antibody

Peptide-affinity purified goat antibody

Catalog # AF2222a

Specification

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

Application	**WB**
Primary Accession	P24752
Other Accession	NP_000010, 38, 110446 (mouse), 25014 (rat)
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:1715688, PubMed:<a

href="http://www.uniprot.org/citations/7728148" target="_blank">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).

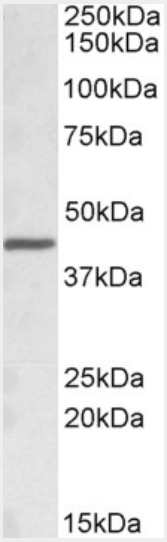
Cellular Location
Mitochondrion.

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 Cytomety
- 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? Rua□o 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. Th□mmler S, et al. Tohoku J Exp Med, 2010 Jan. PMID 20046049.