

ACAT1 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP7560b**Specification**

ACAT1 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [P24752](#)**ACAT1 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 38**Other Names**

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

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP7560b](/product/products/AP7560b) was selected from the C-term region of human ACAT1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ACAT1 Antibody (C-term) Blocking Peptide - 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](http://www.uniprot.org/citations/1715688), PubMed: [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). Thereby, it plays a major role in ketone body metabolism (PubMed:17371050, PubMed:1715688, PubMed:7728148, PubMed:9744475).

Cellular Location

Mitochondrion.

ACAT1 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

ACAT1 Antibody (C-term) Blocking Peptide - Images

ACAT1 Antibody (C-term) Blocking Peptide - 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.

ACAT1 Antibody (C-term) Blocking Peptide - 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)