

**KD-Validated Anti-Acetyl-CoA acetyltransferase 1 Rabbit Monoclonal Antibody**  
**Rabbit monoclonal antibody**  
**Catalog # AGI2343****Specification****KD-Validated Anti-Acetyl-CoA acetyltransferase 1 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	<a href="#">P24752</a>
Reactivity	Rat, Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 45 kDa; Observed, 40 kDa
Gene Name	KDa
Aliases	ACAT1 ACAT1; Acetyl-CoA Acetyltransferase 1; THIL; ACAT; Acetyl-CoA Acetyltransferase, Mitochondrial; Acetyl-Coenzyme A Acetyltransferase 1; Acetoacetyl Coenzyme A Thiolase; Acetoacetyl-CoA Thiolase; EC 2.3.1.9; MAT; T2; Mitochondrial Acetoacetyl-CoA Thiolase; Testicular Tissue Protein Li 198; EC 2.3.1
Immunogen	A synthesized peptide derived from human ACAT1

**KD-Validated Anti-Acetyl-CoA acetyltransferase 1 Rabbit Monoclonal Antibody - Additional Information**

Gene ID	38
Other Names	
Acetyl-CoA acetyltransferase, mitochondrial, 2.3.1.9 {ECO:0000255 PROSITE-ProRule:PRU10020, ECO:0000269 PubMed:1715688, ECO:0000269 PubMed:17371050, ECO:0000269 PubMed:7728148, ECO:0000269 PubMed:9744475}, Acetoacetyl-CoA thiolase, T2, ACAT1, ACAT, MAT	

**KD-Validated Anti-Acetyl-CoA acetyltransferase 1 Rabbit Monoclonal 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:<a href="http://www.uniprot.org/citations/1715688" target="\_blank">1715688</a>, PubMed:<a href="http://www.uniprot.org/citations/7728148" target="\_blank">7728148</a>, PubMed:<a href="http://www.uniprot.org/citations/9744475" target="\_blank">9744475</a>). Using free

coenzyme A/CoA, catalyzes the thiolitic cleavage of medium- to long-chain 3-oxoacyl-CoAs into acetyl-CoA and a fatty acyl-CoA shortened by two carbon atoms (PubMed:<a href="http://www.uniprot.org/citations/1715688" target="\_blank">1715688</a>, PubMed:<a href="http://www.uniprot.org/citations/7728148" target="\_blank">7728148</a>, PubMed:<a href="http://www.uniprot.org/citations/9744475" target="\_blank">9744475</a>). The activity of the enzyme is reversible and it can also catalyze the condensation of two acetyl-CoA molecules into acetoacetyl-CoA (PubMed:<a href="http://www.uniprot.org/citations/17371050" target="\_blank">17371050</a>). Thereby, it plays a major role in ketone body metabolism (PubMed:<a href="http://www.uniprot.org/citations/1715688" target="\_blank">1715688</a>, PubMed:<a href="http://www.uniprot.org/citations/17371050" target="\_blank">17371050</a>, PubMed:<a href="http://www.uniprot.org/citations/7728148" target="\_blank">7728148</a>, PubMed:<a href="http://www.uniprot.org/citations/9744475" target="\_blank">9744475</a>).

### Cellular Location

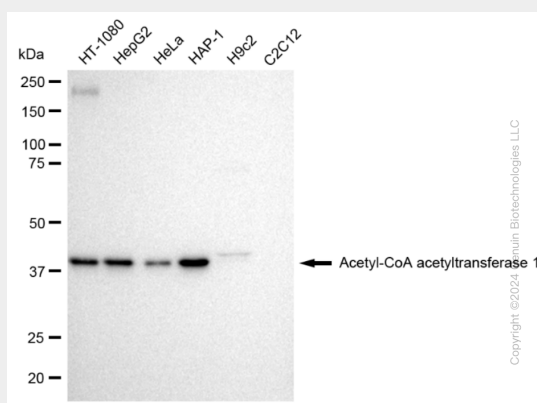
Mitochondrion.

## KD-Validated Anti-Acetyl-CoA acetyltransferase 1 Rabbit Monoclonal Antibody - Protocols

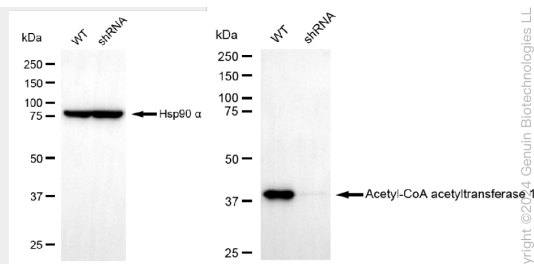
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

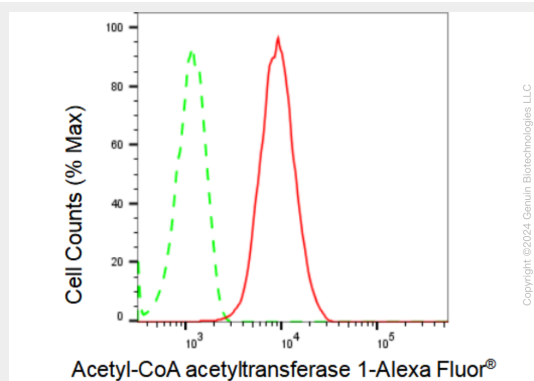
## KD-Validated Anti-Acetyl-CoA acetyltransferase 1 Rabbit Monoclonal Antibody - Images



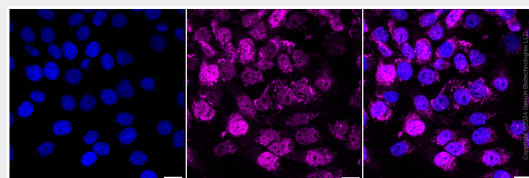
Western blotting analysis using anti-Acetyl-CoA acetyltransferase 1 antibody (Cat#AGI2343). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Acetyl-CoA acetyltransferase 1 antibody (Cat#AGI2343, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-Acetyl-CoA acetyltransferase 1 antibody (Cat#AGI2343). Acetyl-CoA acetyltransferase 1 expression in wild type (WT) and acetyl-CoA acetyltransferase 1 shRNA knockdown (KD) HepG2 cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-Acetyl-CoA acetyltransferase 1 antibody (Cat#AGI2343, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Acetyl-CoA acetyltransferase 1 expression in HepG2 cells using Acetyl-CoA acetyltransferase 1 antibody (Cat#AGI2343, 1:2,000). Green, isotype control; red, Acetyl-CoA acetyltransferase 1.



Immunocytochemical staining of HT-1080 cells with Acetyl-CoA acetyltransferase 1 antibody (Cat#AGI2343, 1:1,000). Nuclei were stained blue with DAPI; Acetyl-CoA acetyltransferase 1 with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.