

# Human ACAT1 antibody

Catalog Number: ATGA0583

## PRODUCT INFORMATION

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**Catalog number**

ATGA0583

**Clone No.**

2C5

**Product type**

Monoclonal antibody

**UnitProt No.**

P24752

**NCBI Accession No.**

NP\_000010

**Alternative Names**

acetyl-CoA acetyltransferase 1, ACAT, MAT, T2, THIL

**Additional Information**

This product was produced from tissue culture supe

## PRODUCT SPECIFICATION

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**Antibody Host**

Mouse

**Reacts With**

Human

**Concentration**

1mg/ml (determined by BCA assay)

**Formulation**

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

**Immunogen**

Recombinant human ACAT1 (34-427aa) purified from E. coli

**Isotype**

IgG1 kappa

**Purification Note**

By protein-A affinity chromatography

**Application**

ELISA, WB, ICC/IF

**Usage**

The antibody has been tested by ELISA, Western blot and ICC/IF analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

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## Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

### Description

ACAT1 (acetyl-Coenzyme A acetyltransferase 1) is a 417 amino acid protein. ACAT1 is a mitochondrial enzyme involved in the formation and degradation of ketone bodies and is necessary for the proper metabolic processing of isoleucine. ACAT1 and ACAT2 catalyze the formation of acetoacetyl-CoA from two acetyl-CoA molecules. These enzymes are also capable of the reverse reaction. Defects in ACAT1 are a cause of 3-ketothiolase deficiency. 3-ketothiolase deficiency 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.

### General References

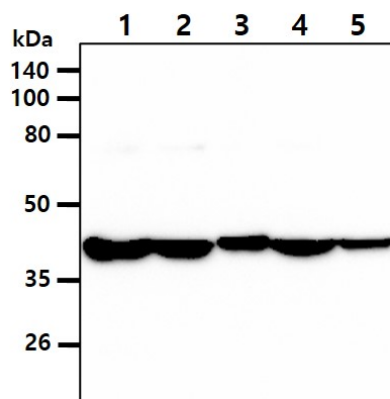
Antonenkov, V.D., et al. (2000) Eur J Biochem 267: 2981-2990.

Korman, S.H. (2006) Mol Genet Metab 89: 289-299.

Yamaguchi, S., et al. (1988) J Clin Invest 81(3): 813-817.

## DATA

### Western blot analysis (WB)



The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human ACAT1 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1.: HepG2 cell lysate

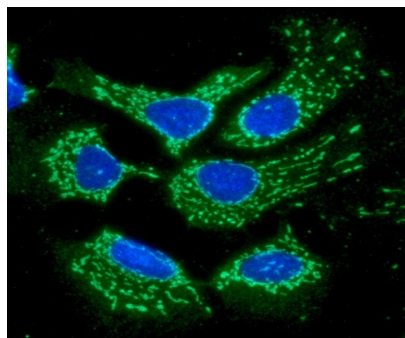
Lane 2.: HeLa cell lysate

Lane 3.: Hep3B cell lysate

Lane 4.: 293T cell lysate

Lane 5.: A431 cell lysate

### Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of ACAT1 in Hep3B cells. The cell was stained with ATGA0583 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).