

Human ACAT1 antibody

Catalog Number: ATGA0240

PRODUCT INFORMATION

Catalog number

ATGA0240

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

PRODUCT SPECIFICATION

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.

Storage

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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

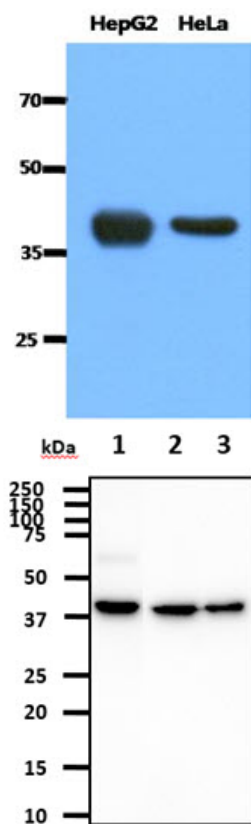
Antonenkov, V.D., et al. (2000) Eur J Biochem 267: 2981-2990.

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.

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Lane 1. : Hep3B cell lysate

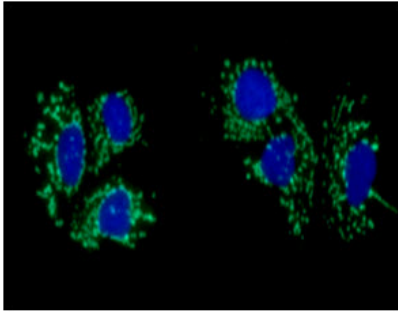
Lane 2. : 293T cell lysate

Lane 3. : A431 cell lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)

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ICC/IF analysis of ACAT1 in Hep3B cells. The cell was stained with ATGA0240 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).