

## Monoclonal anti-human ACAT1 antibody (clone AT2C5)

Mouse IgG<sub>1</sub>, κ

Cat. No. IBATGA0240

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

**NCBI Accession No.:** NP\_000010

**Isotype:** Mouse IgG<sub>1</sub> heavy chain and κ light chain

**Clone:** Anti-human ACAT1 mAb, clone AT2C5, is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human ACAT1 protein.

**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.

**Concentration:** 1mg/ml

**Form:** Liquid. In Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% Glycerol.

**Storage:** Can be stored at +4°C. For long term storage, aliquot and store at -20°C. Avoid repeated freezing and thawing cycles.

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

**Application:** ELISA, WB, ICC/IF

**For research use only. This product is not intended or approved for human, diagnostics or veterinary use.**



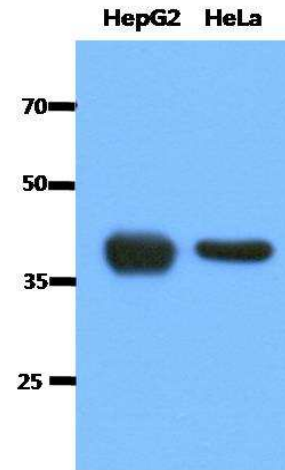
Manufactured for:

Immuno-Biological Laboratories, Inc. (IBL-America)  
8201 Central Ave. NE, Suite P, Minneapolis, Minnesota 55432, USA  
Phone: (888) 523-1246 Fax.: (763) 780-2988  
Email: [info@ibl-america.com](mailto:info@ibl-america.com) Web: [www.ibl-america.com](http://www.ibl-america.com)

# Product information

## Western blot analysis

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.



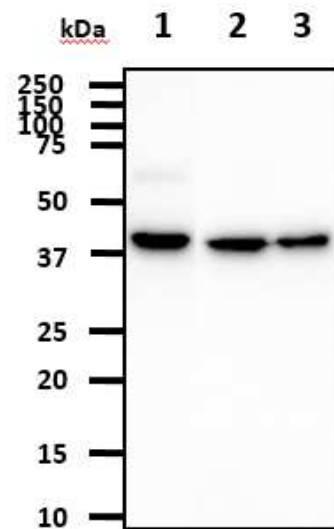
## Western blot analysis

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. : Hep3B cell lysate

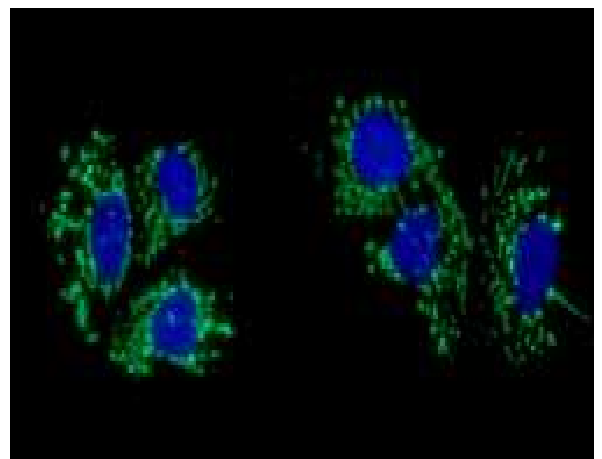
Lane 2. : 293T cell lysate

Lane 3. : A431 cell lysate



## ICC/IF analysis

ICC/IF analysis of ACAT1 in Hep3B cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human ACAT1 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



- 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.

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.