

**ACAT Rabbit Monoclonal Antibody
Product Data Sheet**

Catalog # 2312-1

Clone ID: EP1375Y Lot #: Please refer to vial

Quantity: 100ul

Type: Rabbit Monoclonal IgG

Species Cross-reactivity*: + Human + Mouse + Rat

Applications: + WB + IHC + ICC + Flow Cytometry + IP

Molecular Wt.: 60 kDa

UniProt ID: P23141

*Species cross-reactivity is based on WB analysis

Background: Triacylglycerol hydrolase is a microsomal enzyme that hydrolyzes stored cytoplasmic triacylglycerol in the liver and participates in the lipolysis/re-esterification cycle during the assembly of very-low-density lipoproteins. Expression of human TGH in *Escherichia coli* yields a protein without enzymatic activity, which suggests that posttranslational processing is necessary for the catalytic activity (1). ACAT esterifies free cholesterol and stores cholesteryl esters in lipid droplets. Macrophage ACAT1 deficiency results in increased atherosclerotic lesion area in hyperlipidemic mice via disrupted cholesterol efflux, increased lipoprotein uptake, accumulation of intracellular vesicles, and accelerated apoptosis (2). Data show that macrophage ACAT1 influences the efflux of both cellular and lipoprotein-derived cholesterol and propose a pathway for the pro-atherogenic transformation of ACAT1(-/-) macrophages (3).

Specificity: A synthetic peptide corresponding to residues on the C-terminus of human ACAT was used as an immunogen.

Storage Conditions: Store at -20 °C. Buffer: 50 mM Tris-Glycine (pH 7.4), 0.15 M NaCl, 40% Glycerol, 0.01% sodium azide and 0.05% BSA. Stable for 12 months from date of receipt.

Recommended Dilutions:

WB: 1:25,000 – 50,000

FC: 1:100

IP: 1:30

Please visit www.epitomics.com for recommended protocols

Background References:

1. Alam M, et al. *Biochemistry* 41(21):6679-87, 2002.
2. Dove DE, et al. *Atherosclerosis* 186(2):267-74, 2006.
3. Sone DE, et al. *Arterioscler Thromb Vasc Biol* 25(1): 128-34, 2005.

Related Products:

Antigen	Clone	Catalog #
ACAT	EP1376Y	1912-1

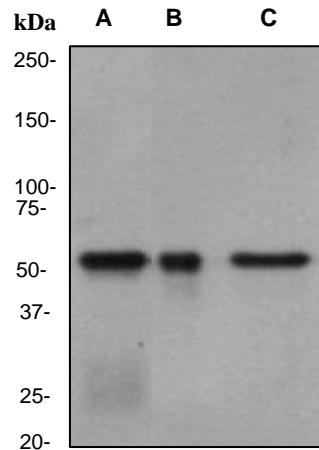


Fig 1. Western blot analysis on (A) U937 (B) human small intestine (C) human liver lysate using anti-ACAT RabMAb (cat. # 2312-1), dilution 1:50,000.

Product QC'd by: _____

For research use only. Not for use in diagnostic or therapeutic applications.

This product was manufactured under U.S. Patent No. 5,675,063. For a complete list of protocols and available related products, please visit us at www.epitomics.com.