

# ACAT-1 (C-25): sc-130578

## BACKGROUND

ACAT-1 (acetyl-Coenzyme A acetyltransferase 1) is a mitochondrial enzyme involved in the formation and degradation of ketone bodies and is necessary for the proper metabolic processing of isoleucine. Rare defects in the gene encoding ACAT-1 lead to  $\beta$ -ketothiolase deficiency, which is characterized by ketoacidotic attacks. ACAT-2 (acetyl-Coenzyme A acetyltransferase 2) is considered a cytosolic protein and is crucial for cholesterol synthesis. Specifically, both Acetoacetyl-CoA specific thiolases, ACAT-1 and ACAT-2 catalyze the formation of acetoacetyl-CoA from two acetyl-CoA molecules. These enzymes are also capable of the reverse reaction, the cleavage of acetoacetyl-CoA into two acetyl-CoA molecules.

## REFERENCES

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## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## CHROMOSOMAL LOCATION

Genetic locus: ACAT1 (human) mapping to 11q22.3.

## SOURCE

ACAT-1 (C-25) is a purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of ACAT-1 of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

ACAT-1 (C-25) is recommended for detection of ACAT-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

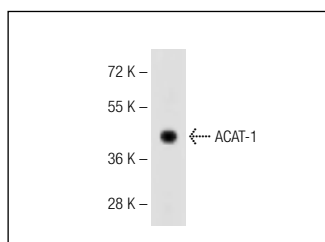
Suitable for use as control antibody for ACAT-1 siRNA (h): sc-96390, ACAT-1 shRNA Plasmid (h): sc-96390-SH and ACAT-1 shRNA (h) Lentiviral Particles: sc-96390-V.

Molecular Weight of ACAT-1: 50 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

## DATA



ACAT-1 (C-25): sc-130578. Western blot analysis of ACAT-1 expression in SK-BR-3 whole cell lysate.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.