

ACAT-2 (N-15): sc-30279

BACKGROUND

ACAT-1 (acetyl-coenzyme A acetyltransferase 1), also known as acetoacetyl coenzyme A thiolase or mitochondrial acetoacetyl-CoA thiolase, is an enzyme involved in the formation and degradation of ketone bodies and is necessary for the proper metabolic processing of isoleucine. ACAT-2 (acetyl-CoA acetyltransferase 2), also known as acetyl-CoA transferase-like protein or cytosolic acetoacetyl-CoA thiolase, is a 397 amino acid protein that belongs to the thiolase family and exists as a homotetramer. 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.

CHROMOSOMAL LOCATION

Genetic locus: ACAT2 (human) mapping to 6q25.3; Acat2 (mouse) mapping to 17 A1.

SOURCE

ACAT-2 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ACAT-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-30279 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

RESEARCH USE

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

APPLICATIONS

ACAT-2 (N-15) is recommended for detection of ACAT-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ACAT-2 (N-15) is also recommended for detection of ACAT-2 in additional species, including equine and bovine.

Suitable for use as control antibody for ACAT-2 siRNA (h): sc-61908, ACAT-2 siRNA (m): sc-61909, ACAT-2 shRNA Plasmid (h): sc-61908-SH, ACAT-2 shRNA Plasmid (m): sc-61909-SH, ACAT-2 shRNA (h) Lentiviral Particles: sc-61908-V and ACAT-2 shRNA (m) Lentiviral Particles: sc-61909-V.

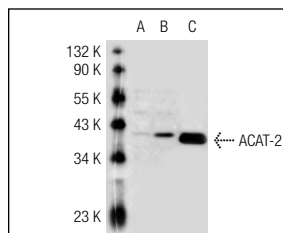
Molecular Weight of ACAT-2: 41 kDa.

Positive Controls: ACAT-2 (m): 293T Lysate: sc-118189, Hep G2 cell lysate: sc-2227 or mouse liver extract: sc-2256.

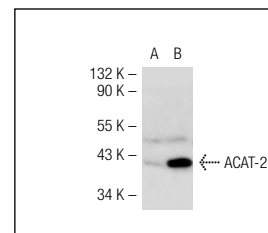
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ACAT-2 (N-15): sc-30279. Western blot analysis of ACAT-2 expression in non-transfected: sc-117752 (A) and mouse ACAT-2 transfected: sc-118190 (B) 293T whole cell lysates and mouse liver tissue extract (C).



ACAT-2 (N-15): sc-30279. Western blot analysis of ACAT-2 expression in non-transfected: sc-117752 (A) and mouse ACAT-2 transfected: sc-118189 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Layeghkhavidaki, H., et al. 2014. Inhibitory action of benzo[α]pyrene on hepatic lipoprotein receptors *in vitro* and on liver lipid homeostasis in mice. PLoS ONE 9: e102991.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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Try **ACAT-2 (4A5): sc-293307**, our highly recommended monoclonal alternative to ACAT-2 (N-15).