

ACAT-2 (A-13): sc-30280

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.

REFERENCES

1. Groot, C.J., et al. 1977. A patient with severe neurologic symptoms and acetoacetyl-CoA thiolase deficiency. *Pediatr. Res.* 11: 1112-1116.
2. Willison, K., et al. 1987. The human homologue of the mouse t-complex gene, TCP1, is located on chromosome 6 but is not near the HLA region. *EMBO J.* 6: 1967-1974.

CHROMOSOMAL LOCATION

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

SOURCE

ACAT-2 (A-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-30280 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ACAT-2 (A-13) 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), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 (A-13) is also recommended for detection of ACAT-2 in additional species, including equine.

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.

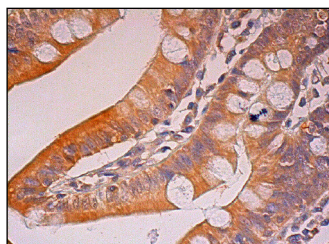
Molecular Weight of ACAT-2: 41 kDa.

Positive Controls: 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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



ACAT-2 (A-13): sc-30280. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells.

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.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **ACAT-2 (4A5): sc-293307**, our highly recommended monoclonal alternative to ACAT-2 (A-13).