SANTA CRUZ BIOTECHNOLOGY, INC.

ACOT9 (N-14): sc-131863

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Acyl-CoA thioesterases (ACOTs) are a group of enzymes that catalyze the hydrolysis of acyl-CoA to form coenzyme A (CoA) and a free fatty acid. Through their catalytic activity, ACOTs are able to regulate the level of fatty acids and acyl-CoAs within the cell. ACOT9 (acyl-CoA thioesterase 9), also known as ACATE2, MT-ACT48 (mitochondrial acyl-CoA thioesterase of 48 kDa) or CGI-16, is a 406 amino acid member of the acyl-CoA hydrolase protein family. ACOT9 contains a C-terminal 80 amino acid domain that is conserved from mouse to human, suggesting that the C-terminus may confer the catalytic activity of ACOT9. The gene encoding ACOT9 is located on chromosome X and the expressed ACOT9 protein is localized to the mitochondrion.

REFERENCES

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2. Alexson, S.E., Mentlein, R., Wernstedt, C. and Hellman, U. 1993. Isolation and characterization of microsomal acyl-CoA thioesterase. A member of the rat liver microsomal carboxylesterase multi-gene family. Eur. J. Biochem. 214: 719-727.
3. Wilcke, M. and Alexson, S.E. 1994. Characterization of acyl-CoA thioesterase activity in isolated rat liver peroxisomes. Partial purification and characterization of a long-chain acyl-CoA thioesterase. Eur. J. Biochem. 222: 803-811.
4. Poupon, V., Bègue, B., Gagnon, J., Dautry-Varsat, A., Cerf-Bensussan, N. and Benmerah, A. 1999. Molecular cloning and characterization of MT-ACT48, a novel mitochondrial acyl-CoA thioesterase. J. Biol. Chem. 274: 19188-19194.
5. Lai, C.H., Chou, C.Y., Ch'ang, L.Y., Liu, C.S. and Lin, W. 2000. Identification of novel human genes evolutionarily conserved in *Caenorhabditis elegans* by comparative proteomics. Genome Res. 10: 703-713.

CHROMOSOMAL LOCATION

Genetic locus: ACOT9 (human) mapping to Xp22.11; Acot9 (mouse) mapping to X F3, Acot10 (mouse) mapping to 15 A2.

SOURCE

ACOT9 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ACOT9 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-131863 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

ACOT9 (N-14) is recommended for detection of ACOT9 of mouse, rat and human origin and ACOT10 of mouse 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).

ACOT9 (N-14) is also recommended for detection of ACOT9 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ACOT9 siRNA (h): sc-91052, ACOT9 shRNA Plasmid (h): sc-91052-SH and ACOT9 shRNA (h) Lentiviral Particles: sc-91052-V.

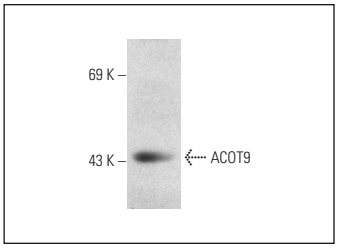
Molecular Weight of ACOT9: 48 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206 or rat skeletal muscle extract: sc-364810.

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



ACOT9 (N-14): sc-131863. Western blot analysis of ACOT9 expression in rat skeletal muscle tissue extract.

STORAGE

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

MONOS Satisfaction Guaranteed

Try **ACOT9 (G-6): sc-514330** or **ACOT9 (O59): sc-100476**, our highly recommended monoclonal alternatives to ACOT9 (N-14).