

ACOT11 (D-4): sc-398738

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. ACOT11 (acyl-CoA thioesterase 11), also known as BFIT, KIAA0707 or THEA, is a 607 amino acid protein that localizes to the cytoplasm and contains one START domain and two acyl coenzyme A hydrolase domains. ACOT11 is expressed as two alternatively spliced isoforms, the first of which is present in liver, testis, spleen, brain, lung and stomach, and the second of which is present in kidney and uterus. ACOT11 functions as an acyl-CoA thioesterase that has catalytic activity towards medium (C12) and long-chain (C18) fatty acyl-CoA substrates.

REFERENCES

- Adams, S.H., et al. 2001. BFIT, a unique acyl-CoA thioesterase induced in thermogenic brown adipose tissue: cloning, organization of the human gene and assessment of a potential link to obesity. *Biochem. J.* 360: 135-142.
- Hunt, M.C. and Alexson, S.E. 2002. The role acyl-CoA thioesterases play in mediating intracellular lipid metabolism. *Prog. Lipid Res.* 41: 99-130.
- Mashek, D.G., et al. 2004. Revised nomenclature for the mammalian long-chain acyl-CoA synthetase gene family. *J. Lipid Res.* 45: 1958-1961.
- Yamada, J. 2005. Long-chain acyl-CoA hydrolase in the brain. *Amino Acids* 28: 273-278.
- Hunt, M.C., et al. 2005. A revised nomenclature for mammalian acyl-CoA thioesterases/hydrolases. *J. Lipid Res.* 46: 2029-2032.
- Hunt, M.C., et al. 2006. Analysis of the mouse and human acyl-CoA thioesterase (ACOT) gene clusters shows that convergent, functional evolution results in a reduced number of human peroxisomal ACOTs. *FASEB J.* 20: 1855-1864.

CHROMOSOMAL LOCATION

Genetic locus: ACOT11 (human) mapping to 1p32.3.

SOURCE

ACOT11 (D-4) is a mouse monoclonal antibody raised against amino acids 320-372 mapping within an internal region of ACOT11 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ACOT11 (D-4) is available conjugated to agarose (sc-398738 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398738 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398738 PE), fluorescein (sc-398738 FITC), Alexa Fluor® 488 (sc-398738 AF488), Alexa Fluor® 546 (sc-398738 AF546), Alexa Fluor® 594 (sc-398738 AF594) or Alexa Fluor® 647 (sc-398738 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398738 AF680) or Alexa Fluor® 790 (sc-398738 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

ACOT11 (D-4) is recommended for detection of ACOT11 of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for ACOT11 siRNA (h): sc-88130, ACOT11 shRNA Plasmid (h): sc-88130-SH and ACOT11 shRNA (h) Lentiviral Particles: sc-88130-V.

Molecular Weight of ACOT11: 68 kDa.

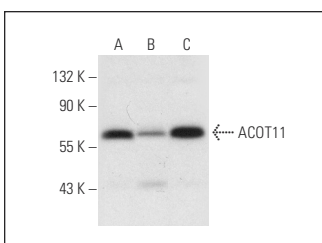
Positive Controls: LNCaP cell lysate: sc-2231, Hep G2 cell lysate: sc-2227 or Hs 181 Tes whole cell lysate: sc-364779.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

- Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ACOT11 (D-4): sc-398738. Western blot analysis of ACOT11 expression in LNCaP (A), Hep G2 (B) and Hs 181 Tes (C) whole cell lysates.

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 for detailed protocols and support products.