

ACBP (M-20): sc-23476

BACKGROUND

Long chain acyl-CoA esters (LCAs) act as both substrates and intermediates in metabolism, and as regulators of various intracellular functions. Acyl-CoA binding protein (ACBP) specifically binds to LCA with high affinity and regulates its availability. ACBP is structurally and functionally conserved among a diverse group of organisms, including human, rat, frog, insects, plants, and yeast. The gene encoding human ACBP maps to chromosome 2, and is highly expressed in liver, soleus muscle, and heart. The 10 kDa ACBP protein is also abundant in cells with a high level of lipogenesis and *de novo* fatty acid synthesis. Expression of ACBP is significantly induced during adipocyte differentiation. ACBP is a target gene for proliferator-activated receptor (PPAR) gamma, and is directly activated by PPAR γ /RXR α and PPAR α /RXR α , but not by PPAR δ /RXR α . In addition to acyl-CoA binding and transport, ACBP is also implicated in gamma-aminobutyric acid type A receptor binding, steroidogenesis, and peptide hormone release.

REFERENCES

1. Knudsen, J. 1990. Acyl-CoA-binding protein (ACBP) and its relation to fatty acid-binding protein (FABP): an overview. *Mol. Cell. Biochem.* 98: 217-223.
2. Knudsen, J., et al. 1993. The function of acyl-CoA-binding protein (ACBP)/diazepam binding inhibitor (DBI). *Mol. Cell. Biochem.* 123: 129-138.
3. Gersuk, V.H., et al. 1995. Molecular cloning and chromosomal localization of a pseudogene related to the human acyl-CoA binding protein/diazepam binding inhibitor. *Genomics* 25: 469-476.
4. Swinnen, J.V., et al. 1998. Identification of diazepam-binding Inhibitor/Acyl-CoA-binding protein as a sterol regulatory element-binding protein-responsive gene. *J. Biol. Chem.* 273: 19938-19944.
5. Knudsen, J., et al. 2000. Role of acyl-CoA binding protein in acyl-CoA metabolism and acyl-CoA-mediated cell signaling. *J. Nutr.* 130: 294S-298S.

CHROMOSOMAL LOCATION

Genetic locus: DBI (human) mapping to 2q14.2; Dbi (mouse) mapping to 1 E2.3.

SOURCE

ACBP (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ACBP of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-23476 P, (100 μ g 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.

APPLICATIONS

ACBP (M-20) is recommended for detection of ACBP of mouse, rat and, to a lesser extent, 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).

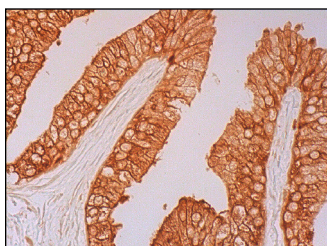
Suitable for use as control antibody for ACBP siRNA (h): sc-40310, ACBP siRNA (m): sc-40311, ACBP shRNA Plasmid (h): sc-40310-SH, ACBP shRNA Plasmid (m): sc-40311-SH, ACBP shRNA (h) Lentiviral Particles: sc-40310-V and ACBP shRNA (m) Lentiviral Particles: sc-40311-V.

Molecular Weight of ACBP: 10 kDa.

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



ACBP (M-20): sc-23476. Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate tissue showing cytoplasmic and membrane staining of glandular cells.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **ACBP (C-9): sc-376853**, our highly recommended monoclonal alternative to ACBP (M-20).