

# ACBP (W-20): sc-23472

## 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 $\gamma$ /RXR $\alpha$  and PPAR $\alpha$ /RXR $\alpha$ , but not by PPAR $\delta$ /RXR $\alpha$ . 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

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- Franch, J., et al. 2002. Acyl-coenzyme A binding protein expression is fibre-type specific in rat skeletal muscle but not affected by moderate endurance training. *Pflugers Arch.* 443: 387-393.

## CHROMOSOMAL LOCATION

Genetic locus: DBI (human) mapping to 2q14.2.

## SOURCE

ACBP (W-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of ACBP of human origin.

## STORAGE

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

## 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-23472 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ACBP (W-20) is recommended for detection of ACBP long isoform of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with ACBP short isoform.

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

Molecular Weight of (ACBP): 10 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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