SANTA CRUZ BIOTECHNOLOGY, INC.

# ACLP/AEBP1 (G-1): sc-271374

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Aortic carboxypeptidase-like protein (ACLP), of which adipocyte enhancer binding protein 1 (AEBP1) is an isoform, is a transcriptional repressor with carboxypeptidase activity that is expressed in vascular smooth muscle cells, and at lower levels in adipose and osteoblastic cells. ACLP contains a signal peptide sequence, a lysine- and proline-rich repeating motif, a discoidin-like protein and a carboxypeptidase-like domain. ACLP is secreted into the extracellular matrix and may play a role in abdominal wall development and dermal wound healing. Additionally, ACLP is downregulated during adipogenesis and upregulated during vascular smooth muscle cell differentiation, suggesting a possible role in tissue development. AEBP1, which may function as a transcriptional repressor, is a truncated form of ACLP which specifically lacks a 380 amino acid N-terminal sequence.

## CHROMOSOMAL LOCATION

Genetic locus: AEBP1 (human) mapping to 7p13; Aebp1 (mouse) mapping to 11 A1.

## SOURCE

ACLP/AEBP1 (G-1) is a mouse monoclonal antibody raised against amino acids 995-1158 mapping at the C-terminus of ACLP/AEBP1 of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_1$ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ACLP/AEBP1 (G-1) is available conjugated to agarose (sc-271374 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-271374 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271374 PE), fluorescein (sc-271374 FITC), Alexa Fluor® 488 (sc-271374 AF488), Alexa Fluor® 546 (sc-271374 AF546), Alexa Fluor® 594 (sc-271374 AF594) or Alexa Fluor® 647 (sc-271374 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271374 AF680) or Alexa Fluor® 790 (sc-271374 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

ACLP/AEBP1 (G-1) is recommended for detection of ACLP/AEBP1 of mouse, rat and 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 ACLP/AEBP1 siRNA (h): sc-40327, ACLP/AEBP1 siRNA (m): sc-40328, ACLP/AEBP1 shRNA Plasmid (h): sc-40327-SH, ACLP/AEBP1 shRNA Plasmid (m): sc-40328-SH, ACLP/AEBP1 shRNA (h) Lentiviral Particles: sc-40327-V and ACLP/AEBP1 shRNA (m) Lentiviral Particles: sc-40328-V.

Molecular Weight of ACLP: 130 kDa.

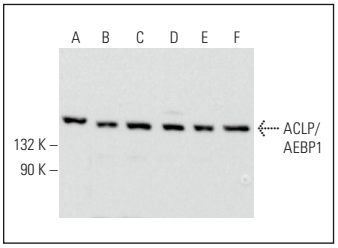
Molecular Weight of AEBP1: 83 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, A-10 cell lysate: sc-3806 or PC-12 cell lysate: sc-2250.

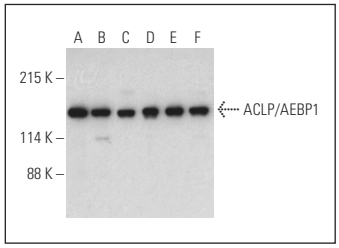
## STORAGE

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

## DATA




ACLP/AEBP1 (G-1): sc-271374. Western blot analysis of ACLP/AEBP1 expression in Hep G2 (**A**), A-10 (**B**), PC-12 (**C**), L6 (**D**), Sol8 (**E**) and $BC_3H1$ (**F**) whole cell lysates.




ACLP/AEBP1 (G-1): sc-271374. Western blot analysis of ACLP/AEBP1 expression in Hep G2 (**A**), Sol8 (**C**), A-10 (**D**), PC-12 (**E**) and L6 (**F**) whole cell lysates and human liver tissue extract (**B**). Detection reagent used: m-$IgG_1$ BP-HRP: sc-525408.

## SELECT PRODUCT CITATIONS


1. Hu, W., et al. 2013. AEBP1 upregulation confers acquired resistance to BRAF (V600E) inhibition in melanoma. Cell Death Dis. 4: e914.
2. Li, S., et al. 2019. MicroRNA 214 inhibits adipocyte enhancer-binding protein 1 activity and increases the sensitivity of chemotherapy in colorectal cancer. Oncol. Lett. 17: 55-62.
3. Buffolo, M., et al. 2019. Identification of a paracrine signaling mechanism linking $CD34^{high}$ progenitors to the regulation of visceral fat expansion and remodeling. Cell Rep. 29: 270-282.e5.
4. Gerhard, G.S., et al. 2019. AEBP1 expression increases with severity of fibrosis in NASH and is regulated by glucose, palmitate, and miR-372-3p. PLoS ONE 14: e0219764.
5. Ren, J., et al. 2020. AEBP1 promotes the occurrence and development of abdominal aortic aneurysm by modulating inflammation via the NFκB pathway. J. Atheroscler. Thromb. 27: 255-270.
6. Hou, Y., et al. 2021. Targeting of glioma stem-like cells with a parthenolide derivative ACT001 through inhibition of AEBP1/PI3K/Akt signaling. Theranostics 11: 555-566.
7. Li, Y.X., et al. 2022. ACLP promotes activation of cancer-associated fibroblasts and tumor metastasis via ACLP-PPARγ-ACLP feedback loop in pancreatic cancer. Cancer Lett. 544: 215802.
8. Liu, F., et al. 2023. Decreased DANCR contributes to high glucose-induced extracellular matrix accumulation in human renal mesangial cell via regulating the TGF-β/Smad signaling. FASEB J. 37: e22926.


## RESEARCH USE

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