

# ACLP/AEBP1 (F-22): sc-130945

## 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.

## REFERENCES

- Gagnon, A., Abaiian, K.J., Crapper, T., Layne, M.D. and Sorisky, A. 2002. Down-regulation of aortic carboxypeptidase-like protein during the early phase of 3T3-L1 adipogenesis. *Endocrinology* 143: 2478-85.
- Ohno, I., Hashimoto, J., Shimizu, K., Takaoka, K., Ochi T., Matsubara, K. and Okubo, K. 1996. A cDNA cloning of human AEBP1 from primary cultured osteoblasts and its expression in a differentiating osteoblastic cell line. *Biochem. Biophys. Res. Commun.* 228: 411-4.
- Ro, H.S., Kim, S.W., Wu, D., Webber, C. and Nicholson, T.E. 2001. Gene structure and expression of the mouse adipocyte enhancer-binding protein. *Gene* 280: 123-33.
- Layne, M.D., Endege, W.O., Jain, M.K., Yet, S.F., Hsieh, C.M., Chin, M.T., Perrella, M.A., Blonar, M.A., Haber, E. and Lee, M.E. 1998. Aortic carboxypeptidase-like protein, a novel protein with discoidin and carboxypeptidase-like domains, is up-regulated during vascular smooth muscle cell differentiation. *J. Biol. Chem.* 273: 15654-60.
- ENTREZ PROTEIN (NP\_001120). World Wide Web URL: <http://www.ncbi.nlm.nih.gov/80/entrez>

## CHROMOSOMAL LOCATION

Genetic locus: AEBP1 (human) mapping to 7p13.

## SOURCE

ACLP/AEBP1 (F-22) is an affinity purified rabbit polyclonal antibody raised against synthetic AEBP1 peptide of human origin.

## PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## 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.

## APPLICATIONS

ACLP/AEBP1 (F-22) is recommended for detection of AEBP1 of human 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), 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 ACLP/AEBP1 siRNA (h): sc-40327, ACLP/AEBP1 shRNA Plasmid (h): sc-40327-SH and ACLP/AEBP1 shRNA (h) Lentiviral Particles: sc-40327-V.

Molecular Weight of ACLP: 175 kDa.

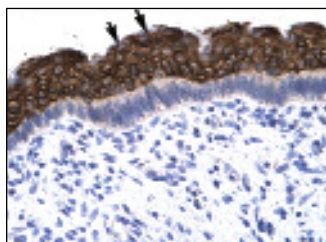
Molecular Weight of AEBP1: 83 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

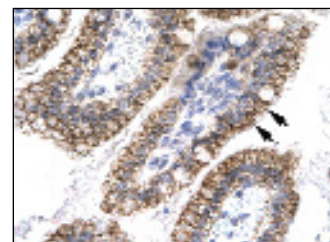
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



ACLP/AEBP1 (F-22): sc-130945. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human spermatophore tissue showing cytoplasmic localization.



ACLP/AEBP1 (F-22): sc-130945. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human intestine tissue showing cytoplasmic and membrane localization.

## PROTOCOLS

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