

ACLP (N-14): sc-21449

BACKGROUND

Adipocyte enhancer binding protein 1 (AEBP 1), of which aortic carboxypeptidase-like protein (ACLP) 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. The ACLP isoform of AEBP 1 contains a signal peptide sequence, a lysine- and proline-rich repeating motif, a discoidin-like protein and a carboxypeptidase-like domain. AEBP 1 is secreted into the extracellular matrix and may play a role in abdominal wall development and dermal wound healing. In differentiating murine osteoblastic cells, AEBP 1 is expressed but shut off in the final calcification phase, indicating a transcriptional repressive effect on genes for bone formation. The expression of AEBP 1 is downregulated during adipogenesis and upregulated during vascular smooth muscle cell differentiation.

REFERENCES

1. Layne, M.D., et al. 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: 15654-15660.
2. Layne, M.D., et al. 2001. Impaired abdominal wall development and deficient wound healing in mice lacking aortic carboxypeptidase-like protein. *Mol. Cell. Biol.* 21: 5256-5261.
3. Ro, H.S., et al. 2001. Gene structure and expression of the mouse adipocyte enhancer-binding protein. *Gene* 280: 123-133.
4. Online Mendelian Inheritance in Man, OMIM[™]. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 602981. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Layne, M.D., et al. 2002. Characterization of the mouse aortic carboxypeptidase-like protein promoter reveals activity in differentiated and dedifferentiated vascular smooth muscle cells. *Circ. Res.* 90: 728-736.
6. LocusLink Report (LocusID: 165). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

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

SOURCE

ACLP (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ACLP of human origin.

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-21449 P, (100 µg 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

ACLP (N-14) is recommended for detection of ACLP 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) 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.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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 or our catalog for detailed protocols and support products.

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Try **ACLP/AEBP1 (G-1): sc-271374**, our highly recommended monoclonal alternative to ACLP (N-14).