

AEBP2 (S-15): sc-160956

BACKGROUND

Adipocyte enhancer-binding protein 2 (AEBP2), also known as zinc finger protein AEBP2, is an 817 amino acid member of the AEBP2 C₂H₂-type zinc-finger protein family. Localized to the nucleus, AEBP2 acts as a DNA-binding transcriptional repressor of the adipose P2 (aP2) gene. The aP2 gene, which encodes the adipose fatty acid-binding protein, plays a critical role in triglyceride metabolism during adipocyte differentiation. The AE-1 region in the proximal promoter region of the aP2 gene functions as either a positive or negative regulatory element. C/EBP α binds to the AE-1 sequence and functions as a transcriptional activator of aP2, whereas other proteins, such as AEBP2, bind to the region and repress gene expression. AEBP2 contains three C₂H₂-type zinc fingers and it has been shown that not all of the zinc fingers are involved in DNA binding. Three isoforms of AEBP2 exist as a result of alternative splicing events.

REFERENCES

1. He, G.P., et al. 1995. A eukaryotic transcriptional repressor with carboxypeptidase activity. *Nature* 378: 92-96.
2. Sandell, L.J. 1996. Genes and gene regulation of extracellular matrix proteins: an introduction. *Connect. Tissue Res.* 35: 1-6.
3. He, G.P., et al. 1999. Cloning and characterization of a novel zinc finger transcriptional repressor. A direct role of the zinc finger motif in repression. *J. Biol. Chem.* 274: 14678-14684.
4. Cowherd, R.M., et al. 1999. Molecular regulation of adipocyte differentiation. *Semin. Cell Dev. Biol.* 10: 3-10.
5. Ro, H.S., et al. 2001. Gene structure and expression of the mouse adipocyte enhancer-binding protein. *Gene* 280: 123-133.
6. Cao, R., et al. 2002. Role of histone H3 lysine 27 methylation in Polycomb-group silencing. *Science* 298: 1039-1043.

CHROMOSOMAL LOCATION

Genetic locus: AEBP2 (human) mapping to 12p12.3; Aebp2 (mouse) mapping to 6 G2.

SOURCE

AEBP2 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AEBP2 of human 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-160956 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-160956 X, 200 μ g/0.1 ml.

RESEARCH USE

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

APPLICATIONS

AEBP2 (S-15) is recommended for detection of AEBP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

AEBP2 (S-15) is also recommended for detection of AEBP2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for AEBP2 siRNA (h): sc-95702, AEBP2 siRNA (m): sc-140891, AEBP2 shRNA Plasmid (h): sc-95702-SH, AEBP2 shRNA Plasmid (m): sc-140891-SH, AEBP2 shRNA (h) Lentiviral Particles: sc-95702-V and AEBP2 shRNA (m) Lentiviral Particles: sc-140891-V.

AEBP2 (S-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of AEBP2 long form: 52 kDa.

Molecular Weight (predicted) of AEBP2 short form: 31 kDa.

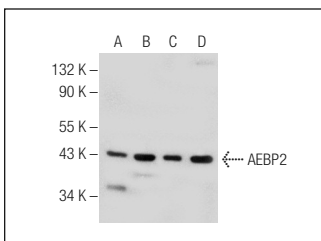
Molecular Weight (observed) of AEBP2: 42 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, SK-MEL-28 cell lysate: sc-2236 or F9 whole cell lysates.

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.

DATA



AEBP2 (S-15): sc-160956. Western blot analysis of AEBP2 expression in Hep G2 (A), SK-MEL-28 (B), TT (C) and F9 (D) whole cell lysates.

STORAGE

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