

C/EBP α (14AA): sc-61

BACKGROUND

The transcription factor C/EBP α (CCAAT-enhancer binding protein) is a heat-stable, sequence-specific DNA-binding protein that binds avidly to several different *cis*-regulatory DNA sequences commonly associated with viral and cellular genes transcribed by RNA polymerase II. C/EBP α regulates gene expression in a variety of tissues including liver, adipose, lung and intestine. C/EBP α is a basic region/leucine zipper transcription factor selectively expressed during the differentiation of liver, adipose tissue, blood cells and the endocrine pancreas. C/EBP α uses a bipartite structural motif to bind DNA and appears to function exclusively in terminally differentiated, growth-arrested cells. In the liver, C/EBP α is a transactivator of several genes, which are regulated by growth hormone. Growth hormone enhances not only the levels of C/EBP α mRNA and protein, but also the DNA-binding activity of C/EBP α . C/EBP α functions as an important transcription factor that regulates different genes, including prolactin gene expression.

CHROMOSOMAL LOCATION

Genetic locus: CEBPA (human) mapping to 19q13.11; Cebpa (mouse) mapping to 7 B1.

SOURCE

C/EBP α (14AA) is available as either rabbit (sc-61) or goat (sc-61-G) affinity purified polyclonal antibody raised against a peptide mapping within an internal region of C/EBP α of rat origin.

PRODUCT

Each vial contains either 100 μ g (sc-61) or 200 μ g (sc-61-G) IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-61 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-61 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

C/EBP α (14AA) is recommended for detection of C/EBP α p42 and p30 of mouse, rat and, to a lesser extent, 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), 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 C/EBP α siRNA (h): sc-37047, C/EBP α siRNA (m): sc-37048, C/EBP α shRNA Plasmid (h): sc-37047-SH, C/EBP α shRNA Plasmid (m): sc-37048-SH, C/EBP α shRNA (h) Lentiviral Particles: sc-37047-V and C/EBP α shRNA (m) Lentiviral Particles: sc-37048-V.

C/EBP α (14AA) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

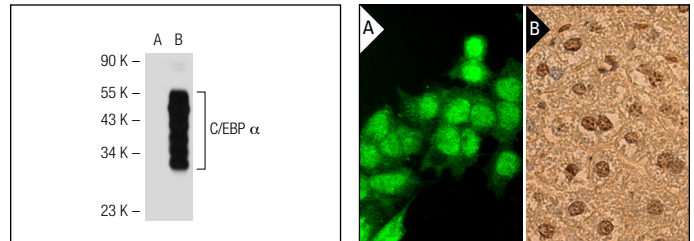
Molecular Weight of C/EBP α isoforms: 42/30 kDa.

Positive Controls: C/EBP α (m2): 293T Lysate: sc-126523

STORAGE

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

DATA



C/EBP α (14AA): sc-61. Western blot analysis of C/EBP α expression in non-transfected 293T: sc-117752 (A) and mouse C/EBP α transfected: sc-126523 (B) 293T whole cell lysates.

C/EBP α (14AA): sc-61. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse liver tissue showing nuclear localization (B).

SELECT PRODUCT CITATIONS

- Fussenegger, M., et al. 1998. Controlled proliferation by multigene metabolic engineering enhances the productivity of Chinese hamster ovary cells. *Nat. Biotechnol.* 16: 468-472.
- Du, C., et al. 2014. The adipogenic transcriptional cofactor ZNF638 interacts with splicing regulators and influences alternative splicing. *J. Lipid Res.* 55: 1886-1896.
- Ptasinska, A., et al. 2014. Identification of a dynamic core transcriptional network in t(8;21) AML that regulates differentiation block and self-renewal. *Cell Rep.* 8: 1974-1988.
- Watanabe, M., et al. 2015. The E3 ubiquitin ligase TRIM23 regulates adipocyte differentiation via stabilization of the adipogenic activator PPAR γ . *ELife* 4: e05615.
- Hu, Y.J., et al. 2015. Transcriptional and post-transcriptional control of adipocyte differentiation by Jumonji domain-containing protein 6. *Nucleic Acids Res.* 43: 7790-7804.
- Xu, M., et al. 2015. Cloning and characterization of the human integrin β 6 gene promoter. *PLoS ONE* 10: e0121439.
- Hughes, J.M., et al. 2015. C/EBP α -p30 protein induces expression of the oncogenic long non-coding RNA UCA1 in acute myeloid leukemia. *Oncotarget* 6: 18534-44.

RESEARCH USE

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



Try **C/EBP α (D-5): sc-365318** or **C/EBP α (G-10): sc-166258**, our highly recommended monoclonal alternatives to C/EBP α (14AA). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **C/EBP α (D-5): sc-365318**.