

C/EBP δ (h): 293T Lysate: sc-176938

BACKGROUND

The transcription factor C/EBP α (CCAAT-enhancer binding protein) is a heat-stable, sequence-specific DNA-binding protein first purified from rat liver nuclei 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 uses a bipartite structural motif to bind DNA. Two protein chains dimerize through a set of amphipathic α helices termed the leucine zipper. Highly basic polypeptide regions emerge from the zipper to form a linked set of DNA contact surfaces. C/EBP α appears to function exclusively in terminally-differentiated, growth-arrested cells. Additional family members include C/EBP β , C/EBP γ , C/EBP δ and C/EBP ϵ , all of which exhibit similar DNA-binding specificities and affinities to C/EBP α . Furthermore, C/EBP β and C/EBP δ readily form heterodimers both with each other as well as with C/EBP α .

REFERENCES

- Johnson, P.F., et al. 1987. Identification of a rat liver nuclear protein that binds to the enhancer core element of three animal viruses. *Genes Dev.* 1: 133-146.
- Landschulz, W.H., et al. 1988. Isolation of a recombinant copy of the gene encoding C/EBP. *Genes Dev.* 2: 786-800.
- Birkenmeier, E.H., et al. 1989. Tissue-specific expression, developmental regulation, and genetic mapping of the gene encoding CCAAT/enhancer binding protein. *Genes Dev.* 3: 1146-1156.
- Cao, Z., et al. 1991. Regulated expression of three C/EBP isoforms during adipose conversion of 3T3-L1 cells. *Genes Dev.* 5: 1538-1552.
- Williams, S.C., et al. 1991. A family of C/EBP-related proteins capable of forming covalently linked leucine zipper dimers *in vitro*. *Genes Dev.* 5: 1553-1567.
- Umek, R.M., et al. 1991. CCAAT-enhancer binding protein: a component of a differentiation switch. *Science* 251: 288-292.
- Davydov, I.V., et al. 1995. Cloning of the cDNA encoding human C/EBP γ , a protein binding to the PRE-I enhancer element of the human interleukin-4 promoter. *Gene* 161: 271-275.

CHROMOSOMAL LOCATION

Genetic locus: CEBPD (human) mapping to 8q11.21.

PRODUCT

C/EBP δ (h): 293T Lysate represents a lysate of human C/EBP δ transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20 $^{\circ}$ C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

C/EBP δ (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive C/EBP δ antibodies. Recommended use: 10-20 μ l per lane.

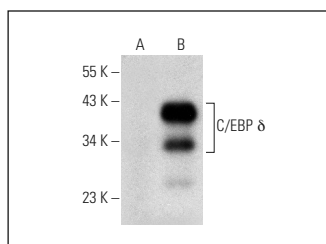
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

C/EBP δ (C-6): sc-365546 is recommended as a positive control antibody for Western Blot analysis of enhanced human C/EBP δ expression in C/EBP δ transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

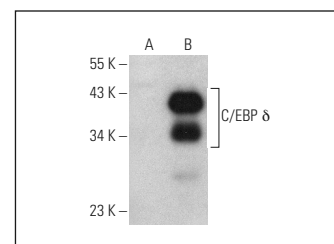
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



C/EBP δ (C-6): sc-365546. Western blot analysis of C/EBP δ expression in non-transfected: sc-117752 (A) and human C/EBP δ transfected: sc-176938 (B) 293T whole cell lysates.



C/EBP δ (D-1): sc-515028. Western blot analysis of C/EBP δ expression in non-transfected: sc-117752 (A) and human C/EBP δ transfected: sc-176938 (B) 293T whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.