

C/EBP β (h): 293T Lysate: sc-176940

BACKGROUND

CCAAT-enhancer binding proteins (C/EBP) are basic region/leucine zipper (bZIP) transcription factors selectively expressed during the differentiation of liver, adipose tissue, blood cells and the endocrine pancreas. C/EBP β is a member of the C/EBP transcription factor family. The C/EBP β gene encodes several isoforms containing truncated transcription activation domains due to the alternative translational initiation at multiple AUG start sites. Initiation of translation at the in-frame AUGs forms four C/EBP β isoforms. C/EBP β is also known as interleukin 6-dependent DNA-binding protein (IL6DBP), liver activator protein (LAP) or liver-enriched transcriptional activator protein transcription factor 5 (TCF5). C/EBP β contributes to the regulation of the acute phase response in hepatocytes. Stat3 has an important function in IL-6-mediated transcription of the C/EBP β gene that has direct implication for acute phase response in liver cells. The C/EBP β form requires phosphorylation for its DNA binding ability, and increase binding of C/EBP β isoforms during acute-phase reaction occurs through its upregulation and structural modification.

REFERENCES

1. Grigoriou, I., et al. 1998. Participation of two isoforms of C/EBP β transcription factor in the acute-phase regulation of the rat haptoglobin gene. *Cell Biol. Int.* 22: 685-693.
2. Hsieh, C.C., et al. 1998. Effects of age on the posttranscriptional regulation of C/EBP α and C/EBP β isoform synthesis in control and LPS-treated livers. *Mol. Biol. Cell* 9: 1479-1494.
3. Maytin, E.V., et al. 1998. Transcription factors C/EBP α , C/EBP β and CHOP (Gadd153) expressed during the differentiation program of keratinocytes *in vitro* and *in vivo*. *J. Invest. Dermatol.* 110: 238-246.
4. Niehof, M., et al. 2001. Interleukin-6-induced tethering of Stat3 to the LAP/C/EBP β promoter suggests a new mechanism of transcriptional regulation by Stat3. *J. Biol. Chem.* 276: 9016-9027.
5. Xiong, W., et al. 2001. Regulation of C/EBP β isoform synthesis by alternative translational initiation at multiple AUG start sites. *Nucleic Acids Res.* 29: 3087-3098.

CHROMOSOMAL LOCATION

Genetic locus: CEBPB (human) mapping to 20q13.13.

PRODUCT

C/EBP β (h): 293T Lysate represents a lysate of human C/EBP β 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.

PROTOCOLS

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

APPLICATIONS

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

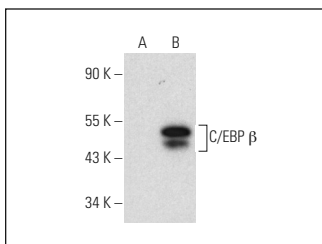
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

C/EBP β (A-7): sc-398753 is recommended as a positive control antibody for Western Blot analysis of enhanced human C/EBP β expression in C/EBP β transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

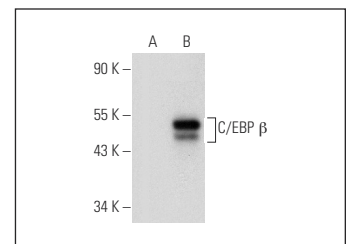
RECOMMENDED SUPPORT REAGENTS

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 MarkerTM Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



C/EBP β (A-7): sc-398753. Western blot analysis of C/EBP β expression in non-transfected: sc-117752 (A) and human C/EBP β transfected: sc-176940 (B) 293T whole cell lysates.



C/EBP β (H-7): sc-7962. Western blot analysis of C/EBP β expression in non-transfected: sc-117752 (A) and human C/EBP β transfected: sc-176940 (B) 293T whole cell lysates.

RESEARCH USE

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