

C/EBP β (47A1): sc-56637

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.

CHROMOSOMAL LOCATION

Genetic locus: CEBPB (human) mapping to 20q13.13; Cebpb (mouse) mapping to 2 H3.

SOURCE

C/EBP β (47A1) is a mouse monoclonal antibody raised against amino acids 1-271 of C/EBP β of human origin.

PRODUCT

Each vial contains 50 μ g IgG₁ in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

C/EBP β (47A1) is recommended for detection of C/EBP β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for C/EBP β siRNA (h): sc-29229, C/EBP β siRNA (m): sc-29862, C/EBP β siRNA (r): sc-270405, C/EBP β shRNA Plasmid (h): sc-29229-SH, C/EBP β shRNA Plasmid (m): sc-29862-SH, C/EBP β shRNA Plasmid (r): sc-270405-SH, C/EBP β shRNA (h) Lentiviral Particles: sc-29229-V, C/EBP β shRNA (m) Lentiviral Particles: sc-29862-V and C/EBP β shRNA (r) Lentiviral Particles: sc-270405-V.

Molecular Weight of C/EBP β : 45 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, C/EBP β (h): 293T Lysate: sc-176940 or HeLa nuclear extract: sc-2120.

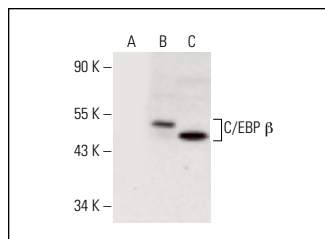
STORAGE

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

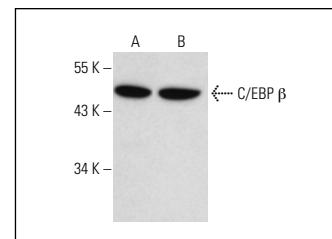
RESEARCH USE

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

DATA



C/EBP β (47A1): sc-56637. Western blot analysis of C/EBP β expression in non-transfected 293T: sc-117752 (A), human C/EBP β transfected 293T: sc-176940 (B) and Jurkat (C) whole cell lysates.



C/EBP β (47A1): sc-56637. Western blot analysis of C/EBP β expression in HeLa (A) and Hep G2 (B) nuclear extracts.

SELECT PRODUCT CITATIONS

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- Khalafi, M., et al. 2020. The impact of moderate-intensity continuous or high-intensity interval training on adipogenesis and browning of subcutaneous adipose tissue in obese male rats. Nutrients 12: 925.
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PROTOCOLS

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