SANTA CRUZ BIOTECHNOLOGY, INC.

C/EBP β (C-19): sc-150

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. C/EBP β is also known as interleukin-6-dependent DNA-binding protein (IL-6DBP), liver activator protein (LAP) or liver-enriched transcriptional activator protein transcription factor-5 (TCF-5). 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 increased binding of C/EBP β isoforms during acute-phase reaction occurs through upregulation and structural modification.

CHROMOSOMAL LOCATION

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

SOURCE

C/EBP β (C-19) is available as either rabbit (sc-150) or goat (sc-150-G) affinity purified polyclonal antibody raised against a peptide mapping at the C-terminus of C/EBP β of rat origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-150 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-150 AC, 500 µg/0.25 ml agarose in 1 ml; and as TransCruz reagent for Gel Supershift and ChIP applications, sc-150 X, 200 µg/0.1 ml.

APPLICATIONS

C/EBP β (C-19) 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), immunoprecipitation [1-2 µg per 100-500 µg 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), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). C/EBP β (C-19) is also recommended for detection of C/EBP β in additional species, including equine, bovine and porcine.

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

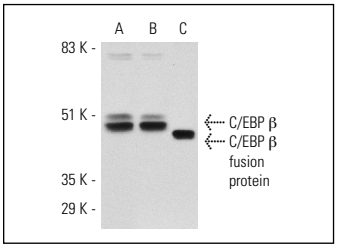
C/EBP β (C-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of C/EBP β: 45 kDa.

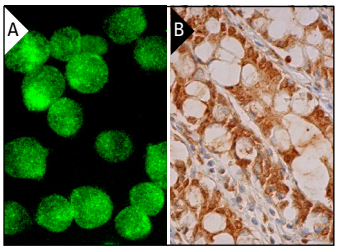
STORAGE

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

DATA



C/EBP β (C-19): sc-150. Western blot analysis of C/EBP β expression in control (**A**) and phorbol-induced (**B**) Jurkat cell nuclear extracts. C/EBP β fusion protein is shown as positive control (**C**).



C/EBP β (C-19): sc-150. Immunofluorescence staining of methanol-fixed Jurkat cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing nuclear and cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Ge, K., et al. 2002. Transcription coactivator TRAP220 is required for PPARγ2-stimulated adipogenesis. Nature 417: 563-567.
2. Kim, H.J., et al. 2002. Osteoprotegerin ligand induces β-casein gene expression through the transcription factor CCAAT/enhancer-binding protein β. J. Biol. Chem. 277: 5339-5344.
3. Umayahara, Y., et al. 2002. Protein kinase C-dependent, CCAAT/enhancer-binding protein β-mediated expression of Insulin-like growth factor I gene. J. Biol. Chem. 277: 15261-15270.
4. Huang, W., et al. 2012. Herpes simplex virus type 2 infection of human epithelial cells induces CXCL9 expression and $CD4^+$ T cell migration via activation of p38-CCAAT/enhancer-binding protein-β pathway. J. Immunol. 188: 6247-6257.
5. Pietschmann, K., et al. 2012. Differential regulation of PML-RARα stability by the ubiquitin ligases SIAH1/SIAH2 and TRIAD1. Int. J. Biochem. Cell Biol. 44: 132-138.
6. Jung, M., et al. 2012. Interleukin-10-induced neutrophil gelatinase-associated lipocalin production in macrophages with consequences for tumor growth. Mol. Cell. Biol. 32: 3938-3948.

RESEARCH USE

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