

C/EBP δ (C-22): sc-151

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 .

CHROMOSOMAL LOCATION

Genetic locus: CEBPD (human) mapping to 8q11.21; Cebpd (mouse) mapping to 16 A2.

SOURCE

C/EBP δ (C-22) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of C/EBP δ of mouse origin.

PRODUCT

Each vial contains 200 μ 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-151 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-151 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

C/EBP δ (C-22) is recommended for detection of C/EBP δ of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for C/EBP δ siRNA (h): sc-37722, C/EBP δ siRNA (m): sc-37723, C/EBP δ shRNA Plasmid (h): sc-37722-SH, C/EBP δ shRNA Plasmid (m): sc-37723-SH, C/EBP δ shRNA (h) Lentiviral Particles: sc-37722-V and C/EBP δ shRNA (m) Lentiviral Particles: sc-37723-V.

C/EBP δ (C-22) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

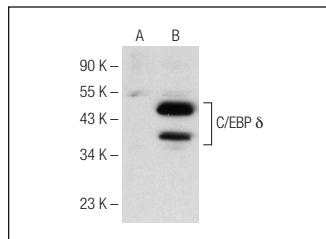
Molecular Weight of C/EBP δ : 28 kDa.

Positive Controls: C/EBP (h): 293T Lysate: sc-176938 or Sol8 nuclear extract: sc-2157.

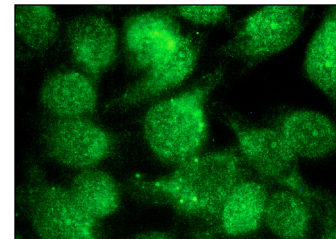
STORAGE

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

DATA



C/EBP δ (C-22): sc-151. 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 (C-22): sc-151. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Ford, A.M., et al. 1996. Regulation of the myeloperoxidase enhancer binding proteins PU.1, C/EBP α , β , and δ during granulocyte-lineage specification. *Proc. Natl. Acad. Sci. USA* 93: 10838-10843.
2. Steger, D.J., et al. 2010. Propagation of adipogenic signals through an epigenomic transition state. *Genes Dev.* 24: 1035-1044.
3. Ceccarelli, V., et al. 2011. Eicosapentaenoic acid demethylates a single CpG that mediates expression of tumor suppressor CCAAT/enhancer-binding protein δ in U937 leukemia cells. *J. Biol. Chem.* 286: 27092-27102.
4. Watanabe, M., et al. 2015. The E3 ubiquitin ligase TRIM23 regulates adipocyte differentiation via stabilization of the adipogenic activator PPAR γ . *Elife* 4: e05615.
5. Kim, Y.M., et al. 2015. The anti-obesity effects of a tuna peptide on 3T3-L1 adipocytes are mediated by the inhibition of the expression of lipogenic and adipogenic genes and by the activation of the Wnt/ β -catenin signaling pathway. *Int. J. Mol. Med.* 36: 327-334.
6. 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.

RESEARCH USE

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



Try **C/EBP δ (C-6): sc-365546** or **C/EBP δ (D-1): sc-515028**, our highly recommended monoclonal alternatives to C/EBP δ (C-22). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **C/EBP δ (C-6): sc-365546**.