

C/EBP δ (C-6): sc-365546

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.

SOURCE

C/EBP δ (C-6) is a mouse monoclonal antibody raised against amino acids 31-170 mapping near the N-terminus of C/EBP δ of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain 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-365546 X, 200 μ g/0.1 ml.

C/EBP δ (C-6) is available conjugated to agarose (sc-365546 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365546 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365546 PE), fluorescein (sc-365546 FITC), Alexa Fluor[®] 488 (sc-365546 AF488), Alexa Fluor[®] 546 (sc-365546 AF546), Alexa Fluor[®] 594 (sc-365546 AF594) or Alexa Fluor[®] 647 (sc-365546 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-365546 AF680) or Alexa Fluor[®] 790 (sc-365546 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

C/EBP δ (C-6) is recommended for detection of C/EBP δ of human origin by Western Blotting (starting dilution 1:100, 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 shRNA Plasmid (h): sc-37722-SH and C/EBP δ shRNA (h) Lentiviral Particles: sc-37722-V.

C/EBP δ (C-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

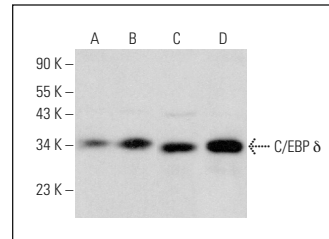
Molecular Weight of C/EBP δ : 28 kDa.

Positive Controls: Caco-2 cell lysate: sc-2262, A549 cell lysate: sc-2413 or HeLa whole cell lysate: sc-2200.

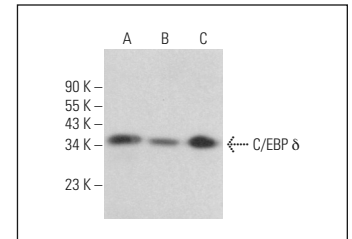
STORAGE

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-6): sc-365546. Western blot analysis of C/EBP δ expression in A549 (A), NCI-H460 (B) and JAR (C) whole cell lysates and HEL 92.1.7 nuclear extract (D).



C/EBP δ (C-6): sc-365546. Western blot analysis of C/EBP δ expression in HeLa (A), A549 (B) and Caco-2 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Dinic, S., et al. 2004. Expression of C/EBP δ in rat liver during development and the acute-phase response. *Gen. Physiol. Biophys.* 23: 499-504.
- Do-Umehara, H.C., et al. 2013. Suppression of inflammation and acute lung injury by Miz1 via repression of C/EBP δ . *Nat. Immunol.* 14: 461-469.
- Lee, C.H., et al. 2018. C/EBP δ drives interactions between human MAIT cells and endothelial cells that are important for extravasation. *Elife* 7: e32532.
- Wang, D., et al. 2020. C/EBP δ -Slug-Lox1 axis promotes metastasis of lung adenocarcinoma via oxLDL uptake. *Oncogene* 39: 833-848.
- Zheng, H., et al. 2021. Integrated single-cell and bulk RNA sequencing analysis identifies a cancer associated fibroblast-related signature for predicting prognosis and therapeutic responses in colorectal cancer. *Cancer Cell Int.* 21: 552.
- Chan, T.C., et al. 2021. Biological significance of MYC and CEBPD coamplification in urothelial carcinoma: multilayered genomic, transcriptional and posttranscriptional positive feedback loops enhance oncogenic glycolysis. *Clin. Transl. Med.* 11: e674.
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- Zhou, Y.W. and Wu, Y. 2022. Substrate viscoelasticity amplifies distinctions between transient and persistent LPS-induced signals. *Adv. Healthc. Mater.* 11: e2102271.
- Zhu, G.Q., et al. 2023. CD36⁺ cancer-associated fibroblasts provide immunosuppressive microenvironment for hepatocellular carcinoma via secretion of macrophage migration inhibitory factor. *Cell Discov.* 9: 25.

RESEARCH USE

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

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