

Anti-C/EBP alpha Antibody

Rabbit polyclonal antibody to C/EBP alpha Catalog # AP61108

Product Information

Application WB, IHC
Primary Accession P49715
Other Accession P53566

Reactivity Human, Mouse, Rat, Bovine

HostRabbitClonalityPolyclonalCalculated MW37561

Additional Information

Gene ID 1050

Other Names CCAAT/enhancer-binding protein alpha; C/EBP alpha

Target/Specificity KLH-conjugated synthetic peptide encompassing a sequence within the

N-term region of human C/EBP alpha. The exact sequence is proprietary.

Dilution WB~~WB (1/500 - 1/1000), IHC (1/50 - 1/100) IHC~~WB (1/500 - 1/1000), IHC

(1/50 - 1/100)

Format Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30%

glycerol, and 0.09% (W/V) sodium azide.

Storage Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name CEBPA (<u>HGNC:1833</u>)

Function Transcription factor that coordinates proliferation arrest and the

differentiation of myeloid progenitors, adipocytes, hepatocytes, and cells of the lung and the placenta. Binds directly to the consensus DNA sequence 5'-T[TG]NNGNAA[TG]-3' acting as an activator on distinct target genes (PubMed:11242107). During early embryogenesis, plays essential and redundant functions with CEBPB. Essential for the transition from common myeloid progenitors (CMP) to granulocyte/monocyte progenitors (GMP). Critical for the proper development of the liver and the lung (By similarity). Necessary for terminal adipocyte differentiation, is required for postnatal maintenance of systemic energy homeostasis and lipid storage (By similarity). To regulate these different processes at the proper moment and tissue, interplays with other transcription factors and modulators. Down-regulates the expression of genes that maintain cells in an undifferentiated and

proliferative state through E2F1 repression, which is critical for its ability to induce adipocyte and granulocyte terminal differentiation. Reciprocally E2F1 blocks adipocyte differentiation by binding to specific promoters and repressing CEBPA binding to its target gene promoters. Proliferation arrest also depends on a functional binding to SWI/SNF complex (PubMed:14660596). In liver, regulates gluconeogenesis and lipogenesis through different mechanisms. To regulate gluconeogenesis, functionally cooperates with FOXO1 binding to IRE-controlled promoters and regulating the expression of target genes such as PCK1 or G6PC1. To modulate lipogenesis, interacts and transcriptionally synergizes with SREBF1 in promoter activation of specific lipogenic target genes such as ACAS2. In adipose tissue, seems to act as FOXO1 coactivator accessing to ADIPOQ promoter through FOXO1 binding sites (By similarity).

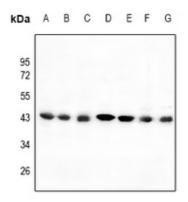
Cellular Location

Nucleus.

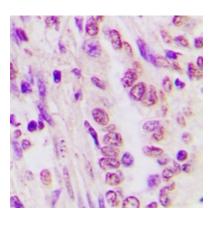
Background

KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human C/EBP alpha. The exact sequence is proprietary.

Images



Western blot analysis of C/EBP alpha expression in mouse embryo (A), rat ovary (B), NIH3T3L1 (C), PC12 (D), Hela (E), Panc1 (F), SGC7901 (G) whole cell lysates.



Immunohistochemical analysis of C/EBP alpha staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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