

C/EBP alpha Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10731**Specification**

C/EBP alpha Antibody - Product Information

Application	WB
Primary Accession	P05554
Other Accession	NP_036656.1
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	37371

C/EBP alpha Antibody - Additional Information**Gene ID** 24252

Positive Control	3T3 cell lysate
Application & Usage	Western blot analysis (1-4 µg/ml). However, the optimal conditions should be determined individually. 3T3 cell lysate can be used as a positive control.

Other Names

CCAAT/enhancer-binding protein alpha

Target/Specificity

C/EBP

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

200 µg (0.5 mg/ml) affinity purified rabbit anti-C/EBP alpha polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 0.01% thimerosal

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

C/EBP alpha Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

C/EBP alpha Antibody - Protein Information

Name Cebpa {ECO:0000312|RGD:2326}

Function

Transcription factor that coordinates proliferation arrest and the differentiation of myeloid progenitors, adipocytes, hepatocytes, and cells of the lung and the placenta (PubMed:8367486, PubMed:11672531, PubMed:16735515, PubMed:20176812). Binds directly to the consensus DNA sequence 5'-T[TG]NNGNAA[TG]-3' acting as an activator on distinct target genes. During early embryogenesis, plays essential and redundant functions with CEBPB (By similarity). Essential for the transition from common myeloid progenitors (CMP) to granulocyte/monocyte progenitors (GMP) (PubMed:11672531). 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 (PubMed:11672531). 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 (PubMed:11672531). Proliferation arrest also depends on a functional binding to SWI/SNF complex (By similarity). 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.

Tissue Location

Isoform 2 and isoform 3 are expressed in liver (at protein level).

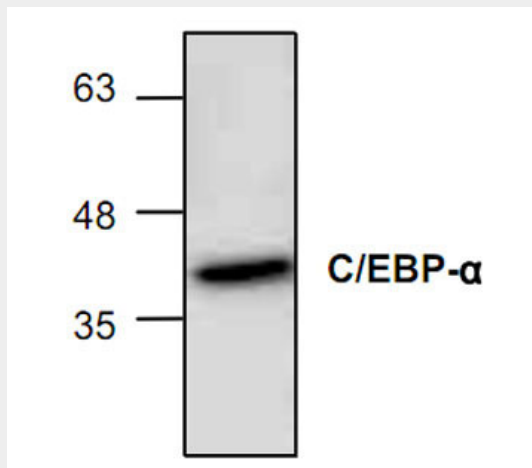
C/EBP alpha Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

- [Flow Cytometry](#)
- [Cell Culture](#)

C/EBP alpha Antibody - Images



Western blot analysis of C/EBP-α with Jurkat cell lysate.

C/EBP alpha Antibody - Background

C/EBP alpha helps regulate terminal adipocyte differentiation by turning on fat-specific genes required for the synthesis, uptake, and storage of long chain fatty acids. Studies have shown that C/EBP delta and C/EBP beta play an early catalytic role in the differentiation pathway, relaying the effects of the hormonal stimulants DEX and MIX in a cascade-like fashion, leading to the activation of the gene encoding C/EBP alpha.