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Anti-CEBP Alpha Antibody
Catalog # ABO10778

Specification

Anti-CEBP Alpha Antibody - Product Information

Application	**WB, IHC-P, ICC**
Primary Accession	P49715
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for CCAAT/enhancer-binding protein alpha(CEBPA) detection. Tested with WB, IHC-P, ICC in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-CEBP Alpha Antibody - Additional Information

Gene ID 1050

Other Names
CCAAT/enhancer-binding protein alpha {ECO:0000312|HGNC:HGNC:1833}, C/EBP alpha {ECO:0000312|HGNC:HGNC:1833}, CEBPA (HGNC:1833)

Calculated MW
37561 MW KDa

Application Details
Immunocytochemistry , 0.5-1 µg/ml, Human, -
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization
Nucleus .

Protein Name
CCAAT/enhancer-binding protein alpha(C/EBP alpha)

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human CEBP Alpha(342-358aa FRQLPESSLVKAMGNCA), identical to the related mouse and rat sequences.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the bZIP family. C/EBP subfamily.

Anti-CEBP Alpha Antibody - Protein Information

Name CEBPA (HGNC:1833)

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.

Anti-CEBP Alpha Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence

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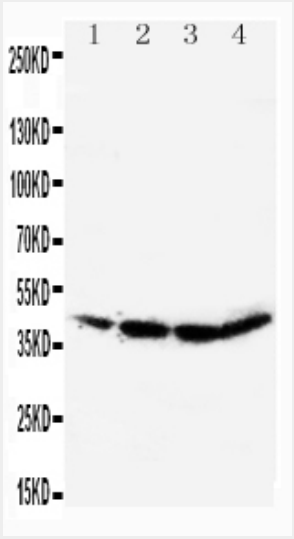
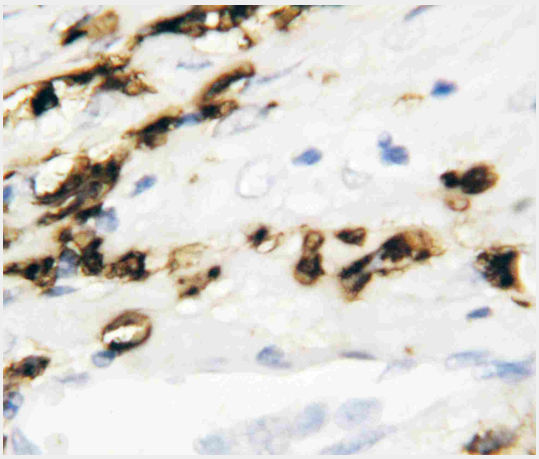
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-CEBP Alpha Antibody - Images



Anti-CEBP Alpha antibody, ABO10778, Western blottingLane 1: MM231 Cell LysateLane 2: JURKAT Cell LysateLane 3: RAJI Cell Lysate Lane 4: HELA Cell Lysate



Anti-CEBP Alpha antibody, ABO10778, IHC(P)IHC(P): Human Mammary Cancer Tissue

Anti-CEBP Alpha Antibody - Background

CEBPA, CCAAT/enhancer-binding protein alpha is a protein that in humans is encoded by the CEBPA gene. The CEBPA gene is intronless. Using human/hamster somatic cell hybrids containing restricted fragments of human chromosome 19, the CEBPA gene is mapped to chromosome 19q13.1, between the GPI and TGFB1 genes. The protein encoded by this intronless gene is a bZIP transcription factor which can bind as a homodimer to certain promoters and enhancers. It can also form heterodimers with the related proteins CEBP-beta and CEBP-gamma. The encoded protein has been shown to bind to the promoter and modulate the expression of the gene encoding leptin, a protein that plays an important role in body weight homeostasis.