

Anti-C/EBP alpha (pS21) Antibody
Rabbit polyclonal antibody to C/EBP alpha (pS21)
Catalog # AP61061

Specification

Anti-C/EBP alpha (pS21) Antibody - Product Information

Application	WB
Primary Accession	P49715
Other Accession	P53566
Reactivity	Human, Mouse, Rat, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	37561

Anti-C/EBP alpha (pS21) Antibody - Additional Information

Gene ID 1050

Other Names

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

Target/Specificity

Recognizes endogenous levels of C/EBP alpha (pS21) protein.

Dilution

WB~~WB (1/500 - 1/1000), IH (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

Anti-C/EBP alpha (pS21) 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

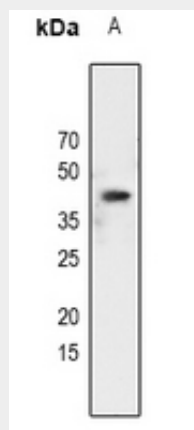
Nucleus.

Anti-C/EBP alpha (pS21) Antibody - Protocols

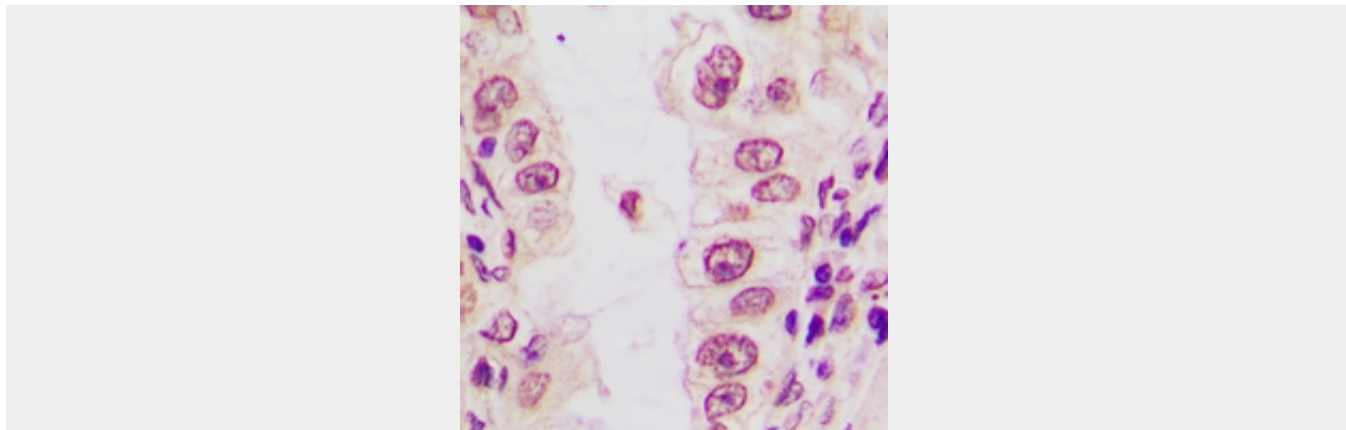
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-C/EBP alpha (pS21) Antibody - Images



Western blot analysis of C/EBP alpha (pS21) expression in rat lung (A) whole cell lysates.



Immunohistochemical analysis of C/EBP alpha (pS21) 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.

Anti-C/EBP alpha (pS21) Antibody - Background

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