

CEBPB Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP6815b

Specification

CEBPB Antibody (C-term) - Product Information

Application WB, IHC-P, FC,E

Primary Accession P17676

Other Accession <u>P21272</u>, <u>P28033</u>, <u>O05826</u>, <u>O02755</u>

Reactivity Human

Predicted Bovine, Chicken, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Calculated MW 36106
Antigen Region 271-298

CEBPB Antibody (C-term) - Additional Information

Gene ID 1051

Other Names

CCAAT/enhancer-binding protein beta, C/EBP beta, Liver activator protein, LAP, Liver-enriched inhibitory protein, LIP, Nuclear factor NF-IL6, Transcription factor 5, TCF-5, CEBPB, TCF5

Target/Specificity

This CEBPB antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 271-298 amino acids from the C-terminal region of human CEBPB.

Dilution

WB~~1:1000 IHC-P~~1:50~100 FC~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at $2-8^{\circ}$ C for up to 2 weeks. For long term storage store at -20° C in small aliquots to prevent freeze-thaw cycles.

Precautions

CEBPB Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CEBPB Antibody (C-term) - Protein Information



Name CEBPB (HGNC:1834)

Synonyms TCF5

Function Important transcription factor regulating the expression of genes involved in immune and inflammatory responses (PubMed: 1741402, PubMed: 9374525, PubMed: 12048245, PubMed: 18647749). Also plays a significant role in adipogenesis, as well as in the gluconeogenic pathway, liver regeneration, and hematopoiesis. The consensus recognition site is 5'-T[TG]NNGNAA[TG]-3'. Its functional capacity is governed by protein interactions and post-translational protein modifications. During early embryogenesis, plays essential and redundant roles with CEBPA. Has a promitotic effect on many cell types such as hepatocytes and adipocytes but has an antiproliferative effect on T-cells by repressing MYC expression, facilitating differentiation along the T-helper 2 lineage. Binds to regulatory regions of several acute-phase and cytokines genes and plays a role in the regulation of acute-phase reaction and inflammation. Also plays a role in intracellular bacteria killing (By similarity). During adipogenesis, is rapidly expressed and, after activation by phosphorylation, induces CEBPA and PPARG, which turn on the series of adipocyte genes that give rise to the adipocyte phenotype. The delayed transactivation of the CEBPA and PPARG genes by CEBPB appears necessary to allow mitotic clonal expansion and thereby progression of terminal differentiation (PubMed: 20829347). Essential for female reproduction because of a critical role in ovarian follicle development (By similarity). Restricts osteoclastogenesis: together with NFE2L1; represses expression of DSPP during odontoblast differentiation (By similarity).

Cellular Location

Nucleus. Cytoplasm. Note=Translocates to the nucleus when phosphorylated at Ser-288. In T-cells when sumoylated drawn to pericentric heterochromatin thereby allowing proliferation (By similarity). {ECO:0000250|UniProtKB:P28033, ECO:0000269|PubMed:9374525}

Tissue Location

Expressed at low levels in the lung, kidney and spleen

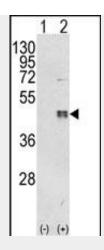
CEBPB Antibody (C-term) - Protocols

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

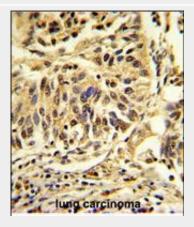
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CEBPB Antibody (C-term) - Images

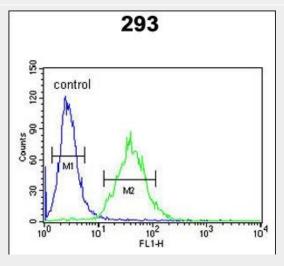




Western blot analysis of CEBPB (arrow) using rabbit polyclonal CEBPB Antibody (C-term) (Cat. #AP6815b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the CEBPB gene (Lane 2) .



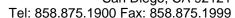
Formalin-fixed and paraffin-embedded human lung carcinoma reacted with CEBPB Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



CEBPB Antibody (C-term) (Cat. #AP6815b) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

CEBPB Antibody (C-term) - Background







CEBPB is a bZIP transcription factor which can bind as a homodimer to certain DNA regulatory regions. It can also form heterodimers with the related proteins CEBP-alpha, CEBP-delta, and CEBP-gamma. This protein is important in the regulation of genes involved in immune and inflammatory responses and has been shown to bind to the IL-1 response element in the IL-6 gene, as well as to regulatory regions of several acute-phase and cytokine genes. In addition, It can bind the promoter and upstream element and stimulate the expression of the collagen type I gene.

CEBPB Antibody (C-term) - References

Buck, M., et.al., Mol. Cell 4 (6), 1087-1092 (1999)