

C/EBP Beta / CEBPB Antibody (aa39-78, clone 21A1)

Mouse Monoclonal Antibody Catalog # ALS11853

Specification

C/EBP Beta / CEBPB Antibody (aa39-78, clone 21A1) - Product Information

Application
Primary Accession
Reactivity
Host
Clonality
Calculated MW
Dilution

WB, IHC-P, IP
P17676
Human
Mouse
Monoclonal
36kDa KDa
WB~~1:1000
IHC-P~~N/A

C/EBP Beta / CEBPB Antibody (aa39-78, clone 21A1) - 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

Reported to recognize an epitope on NF-IL6 within amino acids 39-78

Reconstitution & Storage

+4°C or -20°C, Avoid repeated freezing and thawing.

Precautions

C/EBP Beta / CEBPB Antibody (aa39-78, clone 21A1) is for research use only and not for use in diagnostic or therapeutic procedures.

C/EBP Beta / CEBPB Antibody (aa39-78, clone 21A1) - Protein Information

Name CEBPB (HGNC:1834)

Synonyms TCF5

Function

Important transcription factor regulating the expression of genes involved in immune and inflammatory responses (PubMed:12048245, PubMed:1741402, PubMed:18647749, PubMed:9374525). 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

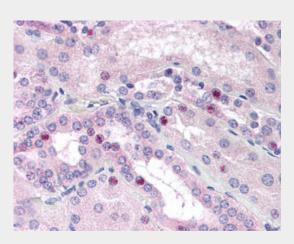
Expressed at low levels in the lung, kidney and spleen

C/EBP Beta / CEBPB Antibody (aa39-78, clone 21A1) - Protocols

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

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

C/EBP Beta / CEBPB Antibody (aa39-78, clone 21A1) - Images



Anti-CEBPB / CEBP Beta antibody IHC of human kidney.



C/EBP Beta / CEBPB Antibody (aa39-78, clone 21A1) - Background

Important transcription factor regulating the expression of genes involved in immune and inflammatory responses. Binds to regulatory regions of several acute-phase and cytokines genes and probably plays a role in the regulation of acute-phase reaction, inflammation and hemopoiesis. The consensus recognition site is 5'-T[TG]NNGNAA[TG]-3'. Plays an important role in adipose tissue differentiation. Regulates the transcriptional induction of peroxisome proliferator-activated receptor gamma (PPARG) as well as other adipogenesis key player genes.

C/EBP Beta / CEBPB Antibody (aa39-78, clone 21A1) - References

Akira S.,et al.EMBO J. 9:1897-1906(1990).

Wan D.,et al.Proc. Natl. Acad. Sci. U.S.A. 101:15724-15729(2004).

Ota T.,et al.Nat. Genet. 36:40-45(2004).

Deloukas P.,et al.Nature 414:865-871(2001).

Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.