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CEBPB Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1608a

Product Information

Application	WB, FC, E
Primary Accession	P17676
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3H9
Isotype	IgG1
Calculated MW	36106
Description	The protein encoded by this intronless gene 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. The encoded 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, the encoded protein can bind the promoter and upstream element and stimulate the expression of the collagen type I gene. Tissue specificity: Expressed at low levels in the lung, kidney and spleen.
Immunogen	Purified recombinant fragment of human CEBPB expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

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
Dilution	WB~~1/500 - 1/2000 FC~~1/200 - 1/400 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CEBPB Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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

References

1. Biochem J. 2009 Dec 14;425(1):215-23. 2. Cell Signal. 2009 Dec;21(12):1918-24.

Images

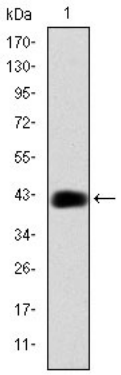
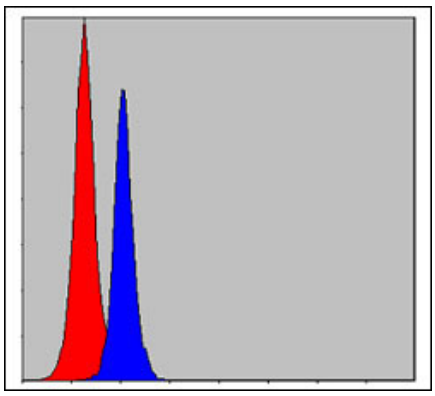


Figure 1: Western blot analysis using CEBPB mAb against human CEBPB (AA: 161-338) recombinant protein. (Expected MW is 44.5 kDa)

Figure 2: Flow cytometric analysis of MCF-7 cells using CEBPB mouse mAb (blue) and negative control (red).



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