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Anti-CEBP Beta Picoband Antibody

Catalog # ABO11866

Product Information

Application	WB, IHC-P, IHC-F
Primary Accession	P17676
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for CCAAT/enhancer-binding protein beta(CEBPB) detection. Tested with WB, IHC-P, IHC-F in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	1051
Other Names	CCAAT/enhancer-binding protein beta {ECO:0000312|HGNC:HGNC:1834}, C/EBP beta {ECO:0000312|HGNC:HGNC:1834}, Liver activator protein, LAP, Liver-enriched inhibitory protein, LIP, Nuclear factor NF-IL6, Transcription factor 5, TCF-5, CEBPB (HGNC:1834), TCF5
Calculated MW	36106
Application Details	Immunohistochemistry(Frozen Section), 0.5-1 □g/ml, Human, - Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, By Heat Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	Nucleus . Cytoplasm . Translocates to the nucleus when phosphorylated at Ser-288. In T-cells when sumoylated drawn to pericentric heterochromatin thereby allowing proliferation (By similarity). .
Tissue Specificity	Expressed at low levels in the lung, kidney and spleen.
Source	Eukaryota
Protein Name	CCAAT/enhancer-binding protein beta
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived human CEBP Beta recombinant protein (Position: M1-A200). Human CEBP Beta shares 61% amino acid (aa) sequence identity with both mouse and rat CEBP Beta.

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.

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

Background

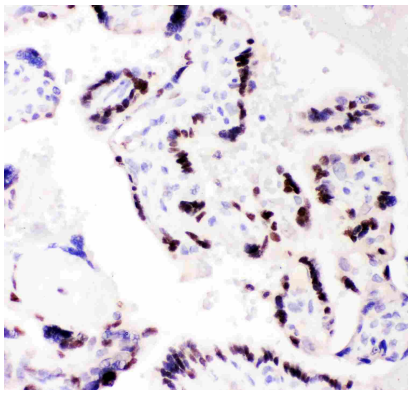
CCAAT/enhancer-binding protein beta, also known as is CEBP-beta, is a protein that in humans is encoded by the CEBPB gene. It mapped to 20q13.13. The protein encoded by this intronless gene is a bZIP transcription factor that can bind as a homodimer to certain DNA regulatory regions. It can also form 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. CEBP-beta is critical for normal macrophage functioning, an important immune cell sub-type. Observational work has shown that expression of CEBP-beta in blood leukocytes is positively associated with muscle strength in humans, emphasizing the

importance of the immune system, and particularly macrophages, in the maintenance of muscle function.

Images



Anti- CEBP Beta Picoband antibody, ABO11866, Western blottingAll lanes: Anti CEBP Beta (ABO11866) at 0.5ug/mlWB: Recombinant Human CEBP Beta Protein 0.5ngPredicted bind size: 42KDObserved bind size: 42KD



Anti- CEBP Beta Picoband antibody, ABO11866, IHC(P)IHC(P): Human Placenta Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.