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Rat-Cebpb-S105 Blocking Peptide

Synthetic peptide
Catalog # BP20701b

Specification

Rat-Cebpb-S105 Blocking Peptide - Product Information

Primary Accession P21272

Rat-Cebpb-S105 Blocking Peptide - Additional Information

Gene ID 24253

Other Names
CCAAT/enhancer-binding protein beta, C/EBP beta, C/EBP-related protein 2, Interleukin-6-dependent-binding protein, IL-6DBP, Liver-enriched inhibitory protein, LIP, Liver-enriched transcriptional activator, LAP, Silencer factor B, SF-B, Cebpb, Crp2, Sfb

Target/Specificity
The synthetic peptide sequence is selected from aa 99-111 of RAT Cebpb

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Rat-Cebpb-S105 Blocking Peptide - Protein Information

Name Cebpb {ECO:0000312|RGD:2327}

Function
Important transcription factor regulating the expression of genes involved in immune and inflammatory responses (PubMed:8336793). Also plays a significant role in adipogenesis, as well as in the gluconeogenic pathway, liver regeneration, and hematopoiesis (PubMed:10635333). 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 (By similarity). 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 (PubMed:10635333). 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 (By similarity). 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 (PubMed:15308669).

Cellular Location
Nucleus {ECO:0000250|UniProtKB:P17676}. Cytoplasm {ECO:0000250|UniProtKB:P17676}. 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:P17676, ECO:0000250|UniProtKB:P28033}

Tissue Location
Liver and lung.

Rat-Cebpb-S105 Blocking Peptide - Protocols

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

- Blocking Peptides

Rat-Cebpb-S105 Blocking Peptide - Images

Rat-Cebpb-S105 Blocking Peptide - Background

Important transcriptional activator 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'. Functions in brown adipose tissue (BAT) differentiation. Regulates the transcriptional induction of peroxisome proliferator-activated receptor gamma (PPARG).

Rat-Cebpb-S105 Blocking Peptide - References

Poli V.,et al.Cell 63:643-653(1990).
Descombes P.,et al.Genes Dev. 4:1541-1551(1990).
Thomassin H.,et al.Nucleic Acids Res. 20:3091-3098(1992).
Imagawa M.,et al.Submitted (JUL-1991) to the EMBL/GenBank/DDBJ databases.
Williams S.C.,et al.Genes Dev. 5:1553-1567(1991).