

## Product datasheet for **MG227563**

### **Cebpb (NM\_009883) Mouse Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cebpb (NM_009883) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cebpb
Synonyms:	C/EBPbeta; CRP2; IL-6DBP; LAP; LIP; NF-IL6; NF-M; Nfil6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG227563 representing NM_009883 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**

ATGCACCGCCTGCTGGCCTGGGACGCAGCATGCCTCCCGCCGCCGCCGCCGCTTTAGACCCATGGAAG  
TGGCCAACTTCTACTACGAGCCGACTGCCTGGCTACGGGGCCAAGCGGCCCGCGCGCGCGCGCGC  
CCCCGCCGCCGAGCCGGCCATTGGCGAGCAGAGCGGCCATCGACTTCAGCCCCCTACCTGGAGCCGCTC  
GCGCCCGCGCGGACTTCGCCGCGCCCGCGCCCGCGCACACGACTTCCTCTCGACCTCTTCGCCGAGC  
ACTACGGCGCAAGCCGAGCAAGAAGCCGGCCGACTACGTTACGTGAGCCTCGGCCGCGCGGGCGCCAA  
GGCCGCGCCGCCGCTGCTTCCCGCGCGCCCTCCCGCGCGCTCAAGCGGAGCCGGGCTTCGAACCC  
GCGGACTGCAAGCGCGCGGACGACGCGCCGCCATGGCGGCCGTTTCCCGTTCCGCTCGCGCGCTACC  
TGGGCTACCAGGCGACGCCGAGCGGCAGCAGCGGAGCCTGTCCACGTCGTCTGTCGACCCGCCCGG  
CACGCCGAGCCCCGCGACGCCAAGGCCGCGCCCGCCGCTGCTTCGCGGGGCCGCCGCCGCGCGCCGCC  
AAGGCCAAGGCCAAGAAGACGGTGGACAAGCTGAGCGACGAGTACAAGATGCGGCGGAGCGCAACAACA  
TCGCGGTGCGCAAGAGCCGCGACAAGGCCAAGATGCGCAACCTGGAGACGACGACAAGGTGCTGGAGCT  
GACGGCGGAGAACGAGCGGCTGCAGAAGAAGGTGGAGCAGCTGTGCGGAGAGCTCAGCACCTGCGGAAC  
TTGTTCAAGCAGCTGCCCGAGCCGCTGCTGGCTCGCGGGCCACTGC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG227563 representing NM\_009883  
Red=Cloning site Green=Tags(s)

MHRLLAWDAACLP PPPAAFRPMEVANFYYPDCLAYGAKAARAAPRAPAAEPAIGEHERAIDFSPYLEPL  
APAADFAAPAPAHDFLSDLFADDYGAKPSKKPADYGYVSLGRAGAKAAPACFP PPPPAALKAEPGFEP  
ADCKRADDAPAMAAGFPFALRAYLGYQATPSGSSGSLSTSSSSPPGTPSPADAKAAPACFAGPPAAPA  
KAKAKKTVDKLSDEYKMRERNNIAVRKSRDKAKMRNLETQHKVLELTAEENERLQKKVEQLSRELSTLRN  
LFKQLPEPLLASAGHC

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



CTATAGGGCGGCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCGCGATCGCCGCGCGCCAGATCT

EcoR I BamH I Kpn I RBS Kozac Consensus Sgf I Asc I

CAAGCTTAAGTCTAGTACGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC - - - -

Hind III Nhe I Rsr II Mlu I Not I Xho I GFP Tag

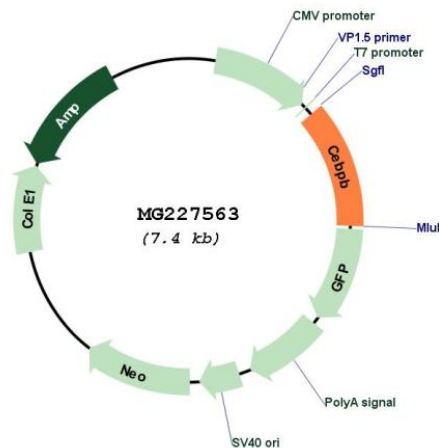
T R T R P L E M E S D - - - -

Pme I Fse I

- - - GAA GAA AGA GTT TAA ACGGCGGCGCGGAGCT

- - E E R V Stop

Plasmid Map:



ACCN: NM\_009883

ORF Size: 888 bp

<b>OTI Disclaimer:</b>	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_009883.4</a>
<b>RefSeq Size:</b>	1507 bp
<b>RefSeq ORF:</b>	891 bp
<b>Locus ID:</b>	12608
<b>UniProt ID:</b>	<a href="#">P28033</a>
<b>Cytogenetics:</b>	2 87.58 cM

**Gene Summary:**

Important transcription factor regulating the expression of genes involved in immune and inflammatory responses (PubMed:16585579, PubMed:17911624, PubMed:18486321, PubMed:20111005). Plays also a significant role in adipogenesis, as well as in the gluconeogenic pathway, liver regeneration, and hematopoiesis (PubMed:9727068, PubMed:10635333, PubMed:17301242, PubMed:17601773, PubMed:19478079, PubMed:24061474, PubMed:24216764). 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 functions with CEBPA (PubMed:15509779). 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:9727068, PubMed:10635333, PubMed:16585579). Binds to regulatory regions of several acute-phase and cytokines genes and plays a role in the regulation of acute-phase reaction and inflammation. Plays also a role in intracellular bacteria killing (PubMed:17911624). 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:15985551, PubMed:17301242, PubMed:17601773, PubMed:20194620). Essential for female reproduction because of a critical role in ovarian follicle development (PubMed:9303532). Restricts osteoclastogenesis (PubMed:19440205). Together with NFE2L1; represses expression of DSPP during odontoblast differentiation (By similarity).[UniProtKB/Swiss-Prot Function]