

## Product datasheet for **RR204288**

### **Cpeb1 (NM\_001106276) Rat Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cpeb1 (NM_001106276) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cpeb1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RR204288 representing NM\_001106276  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCTTTTTCTCTGGAAGAAGAATCAGGAAGGATAAAGGACTGCTGGGACAACCAAGAGTTCTCTGCAC  
 TCTCTACATGTAGCAATGCCAATATCTTTCGAAGGATAAATGCCATTTTGATGATTCACCTGGACTTCAG  
 TAAAGTCTGCACAACACCTATAAATCGAGGAATTCATGATCAGTTGCCAGACTTCCAGGACTCTGAAGAA  
 GCAATTACAAGCAGGATGCTTTTCCCACCTCTGCGCAAGAATCTCCCCGCGCCTCCAGATGCAAACG  
 GTTTGTGCTTGGCTGCACTCAGTCTGACTGGCTGGGACCGACCCTGGAGCACCAGGACTCAGA  
 CTCCTCAGCCCAGAGCAACACACAGTCAAGTAAAGCATGCTCCAAAATCCACTGGGAAATGCTTAGGA  
 AAAACCCCTTGAGTCTCTGTCTCTGGATCCCCTTGGTCTGACTTGGACAAGTCCCAGCGCCCTCAG  
 TTAGAGGATCTCGCTGGACACCCGGCCTATCCTGGACTCCCGTTCTAGCAGCCCTCTGACTCAGACAC  
 GAGTGGCTTCAGCTCTGGATCAGATCATCTCTCAGATTTGATTTCAAGCCTTCGATTTCCCTCTCTG  
 CCCTTTCTTTCTATGACGGGAAATGGTCCCAGAGACCCTCTAAAGATGGGAGTTGGTCTCGAATGGACC  
 AAGAGCAAGCTGCTCTTGTCTGCAGTTGCTCCCTCTCCAACAGTCTCCAAGAGATGGCCAGGAACTTC  
 TGTGTGGCCATCTTGGACCTTCTCGGAGCTCCTAAAGACCCATTAGCATAGAGAGAGAGGCTAGACTC  
 CACAGGCAGGCCGAGCTGTGAATGAAGCTACATGTACCTGGAGTGGCCAGCTTCTCCCGGAACTACA  
 AGAACCCCATCTACTCATGAAGGTGTTCTAGGAGGTGTTCTTGGGACATTACAGAAGCTGGATTGGT  
 TAACACCTTCCGTGTTTTGGCTCTCTGAGTGTGGAGTGGCTGGTAAGGATGGCAAGCACCCCGGTGT  
 CCTCCAAAGGTAATATGCCTAAAGGATGTGTATTTGGTGTGTAAGTGAAGTCCGTCGGGCT  
 TGCTTCAGGCTTGTCTCATGACCCACTGAGCCAGATGGCCTAAGTGAATATTATTCAAGATGTCAG  
 CCGAAGGATGCGCTGCAAGAAGTACAGGTAATCCCTTGGGTCTTGGCTGACAGCAACTTTGTCTGGAGC  
 CCATCTCAGAGGCTGGATCCCAGCAGGACGGTGTGTTGGTGCCTTGCACGGGATGCTCAATGCTGAGG  
 CTCTGGCTGCCATCTTGAATGACCTATTTGGTGGAGTGGTGTATGCTGGGATTGACACAGATAAGCACAA  
 GTACCCCATTTGGTCTGGTCTGTGACTTTCAATAACCAACGTAGTTACCTGAAAGCAGTCACTGCTGCT  
 TTTGTGGAGATCAAACCAAGTTTACCAAGAAGGTTAGATCGACCCCTATCTAGAAGATTCTCTGT  
 GTCTTATCTGCAGTTCACAACCTGGTCTTTCTCTGCCGAGATCAGGTCTGCTTCAAGTACTTTTGCCG  
 AAGCTGCTGGCACTGGCGACACAGCATGGAAGGCCTACGCCACCACAGCCCGCTAATGAGGAACCAGAAG  
 AAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RR204288 representing NM\_001106276  
 Red=Cloning site Green=Tags(s)

MAFSLEEEESGRIKDCWDNQEVPALSTCSNANIFRRINAILDDSLDFSKVCTTPINRGIHQDQLPDFQDSEE  
 AITSRMLFPTSAQESPRGLPDANGLCLGLQSLSLTGWDRPWSTQSDSSAQSNQSVLSMLQNPLGNVLG  
 KTPLSFLSLDPLGSDLDKFPAPSVRGRSLDTRPILDSRSSPSDSDTSGFSSGSDHLSLISLRI SPPL  
 PFLSMTGNGPRDPLKMGVGSRMDEQAALAAVAPSPTSAPKRWPGTSVWPSWDLLGAPKDPFSIEREARL  
 HRQAAAVNEATCTWSGQLPPRNYKNPIYSCKVFLGGVPWDITEAGLVNTRFRVFGSLSVEWPGKDGKHPRC  
 PPKGNMPPKGYVYLVFELEKSVRALLQACSHDPLSPDGLSEYFFKMSSRRMRCKEVQVIPWVLADSNFVWS  
 PSQRLDPSRTVFGALHGMLNAEALAILNDLFGGVVYAGIDTDKHKYPIGSGRVTFNNQRSYLKAVTAA  
 FVEIKTKFTKKVQIDPYLEDLSLCLICSSQPGPFFCRDQVCFKYFCRSCWHHRHSMELRHHSPLMRNQK  
 N

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001106276

**ORF Size:** 1683 bp

**OTI Disclaimer:** 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. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** 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).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

**RefSeq:** [NM\\_001106276.1](#), [NP\\_001099746.1](#)
**RefSeq Size:** 2615 bp

**RefSeq ORF:** 1686 bp

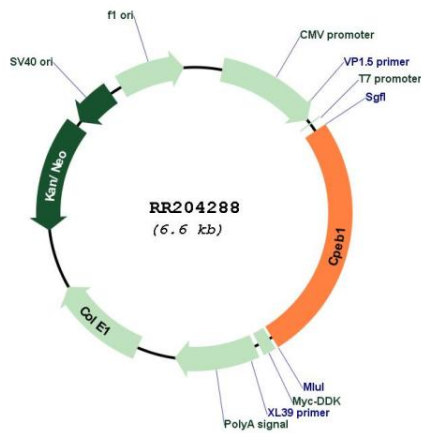
**Locus ID:** 293056

**UniProt ID:** [P0C279](#)
**Cytogenetics:** 1q31

**MW:** 62.1 kDa

**Gene Summary:** Sequence-specific RNA-binding protein that regulates mRNA cytoplasmic polyadenylation and translation initiation during oocyte maturation, early development and at postsynapse sites of neurons. Binds to the cytoplasmic polyadenylation element (CPE), an uridine-rich sequence element (consensus sequence 5'-UUUUU-3') within the 3' UTR of mRNAs. In absence of phosphorylation and in association with TACC3 is also involved as a repressor of translation of CPE-containing mRNA; a repression that is relieved by phosphorylation or degradation. Involved in the transport of CPE-containing mRNA to dendrites; those mRNAs may be transported to dendrites in a translationally dormant form and translationally activated at synapses. Its interaction with APLP1 promotes local CPE-containing mRNA polyadenylation and translation activation. Induces the assembly of stress granules in the absence of stress. Required for cell cycle progression, specifically for prophase entry. [UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RR204288