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Product datasheet for MR224198

Cpeb4 (NM_026252) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cpeb4 (NM_026252) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cpeb4
Synonyms:	Cpe-bp4; Cpeb-4; mCPEB-4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR224198 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGGATTACGGGTTTGGAGTGCTAGTGCAAAGCAATACTGGGAATAAATCTGCTTTTCCAGTCCGAT
TCCATCCACATCTGCAGCCTCCACACCATCACCAAAATGCCACCCCCAACCCTGCTGCTTTTATAAATAA
TAACACAGCTGCCAATGGCAGCAGTGCTGGGTCAGCCTGGCTCTTTCCTGCCCCGGCTACTCATAACATT
CAGGATGAGATCTTGGGGTCAGAAAAAGCAAAAAGTCAACAGCAAGAACAACAAGACCCTTTAGAAAAGC
AACAGCTCTCCCCGAGTCCAGGTCAGGAAGCTGGAATACTGCCTGAAACTGAAAAGGCAAAAGCTGAAGA
AAATCCAGGGGACAGTTCTTCAGAAAACAGCAACGGAAAAGAAAAACTACGCATTGAATCACCAGTGTTG
ACAGGGTTTGATTACCAAGAAGCCACCGGTCTCGGGACTTCCACCCAACCCTTGACATCCAGTGCATCGT
CCCTTACTGGTTTCAGTAACTGGTCAGCAGCGATAGCACCTTCTTCCTCCACTATAATCAATGAAGATGC
AAGTTTCTTTCACCAGGGAGGGGTCCCTGGCGCTTCAGCTAATAATGGTGCTCTCTTGTTTCAAAATTTT
CCCCATCATGTCAGCCCTGGCTTTGGTGGTAGCTTCTCCCCTCAGATCGGGCCTCTCTCCCAGCACCATC
CTCATCACCCCCATTTCCAGCACCATCACAGCCAGCATCAGCAGCAGAGGAGGTCTCCTGCCAGTCCCCA
CCCCCCACCTTTCACACATAGAAGTGCTGCTTTTAACCAGCTGCCTCATTTGGCGAATAATCTTAACAAA
CCTCCTTCTCCATGGAGCAGCTACCAAAGTCCTTCTCCAACCCCCTCTTCTTCCTGGAGCCCAGGAGGTG
GCGGCTACGGTGGCTGGGGAGCATCTCAAGGCCGGGATCACCGCAGAGGGCTGAACGGTGGAATAACACC
CCTGAACTCAATCTCACCTTTGAAGAAAAATTTCGCAAGCAATCATATTCAGCTCCAGAAGTATGCTCGC
CCTAGCTCAGCCTTTGCTCCAAAATCCTGGATGGAAGATAGCTTGAACAGGGCTGACAACATTTTTCCTT
TTCCGGAACGCCCCAGGACGTTTGACATGCACTCACTGGAGAGCTCACTCATTGACATAATGAGAGCTGA
AAATGATTCCATTAAAGGTCGTCTAAACTATTCATACCCAGGATCCGATAGTTCTCTGCTTATTAATGCA
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GTGGGGATCAACCTCTTCATAGTGGTCTGGGGTCACCTCACTGCTTCACTCACCAGAATGGGGAGAGAGT
GGAACGATACTCTCGCAAAGTGTTTGTGGGTGGATTGCCTCCTGATATTGATGAAGATGAGATCACAGCT
AGTTTCCGTCGCTTTGGCCCTTTGATTGTGGATTGGCCTCATAAGGCAGAGAGCAAATCTTATTTTCCAC
CAAAAGGCTATGCATTCCTGCTGTTTCAAGATGAAAGTTCTGTTCAGGCTCTCATTGATGCATGTATTGA
AGAAGATGGAAAACTTTACCTGTGTGTATCAAGTCCAACCATCAAGGATAAACCAGTGCAGATCCGGCCC
TGGAATCTCAGTGACAGTGACTTTGTGATGGATGGCTCACAGCCACTTGACCCACGGAAAACAATATTTG
TTGGTGGTGTTCCTCGACCATTACGAGCTGTGGAGCTTGCAATGATAATGGATCGGCTGTATGGAGGCGT
CTGCTATGCTGGAATCGATACTGACCCAGAGCTCAAATACCCAAAAGGAGCTGGAAGAGTCGCGTTTTCT
AATCAACAGAGTTACATAGCTGCTATCAGTGCCCGCTTTGTTCAGCTGCAGCATGGAGAGATAGATAAAC
GGGTGGAGGTTAAGCCATATGTCTTGGATGACCAGCTGTGTGATGAATGTCAAGGGGCCCGTTGTGGGGG
GAAATTTGCTCCATTTTTCTGTGCTAATGTTACCTGTCTGCAGTATTACTGTGAATATTGCTGGGCTGCT
ATTCACTCTCGTGCTGGCAGAGAATTCCACAAGCCCCTGGTGAAGGAAGGTGGTGACCGCCCTCGGCATA
TTTCATTCCGCTGGAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

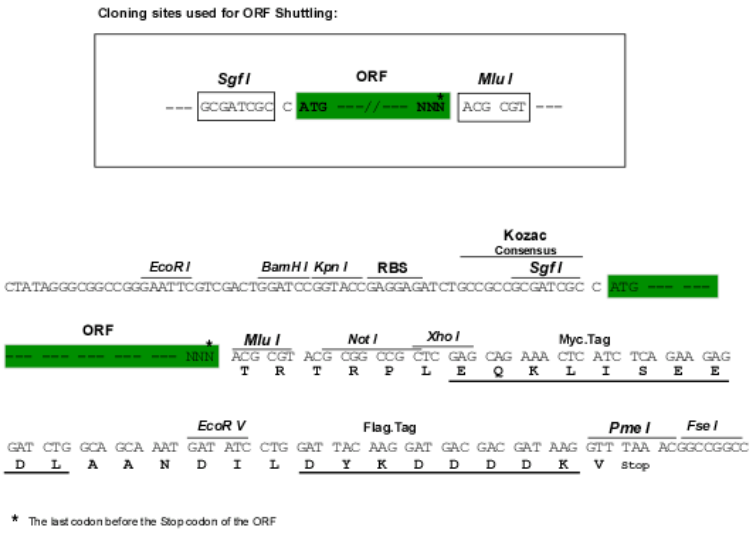
>MR224198 protein sequence
Red=Cloning site Green=Tags(s)

MGDYGFGVLVQSNTGNKSAFPVRFHPHLQPPHHHQNATPNPAAFINNNTAANGSSAGSAWLFPAPATHNI
QDEILGSEKAKSQQQEQQDPLEKQQLSPSPGQEAGILPETEKAKAEENPGDSSSENSNGKEKLRIESPVL
TGFDYQEATGLGTSTQPLTSSASSLTGFSNWSAAIAPSSSTIINEDASFFHQGGVPGASANNGALLFQNF
PHHVSPGFGGSFSPQIGPLSQHHPHHPHFQHHHSQHQQQRRSPASPHPPPFTHRSAAFNQLPHLANNLNK
PPSPWSSYQSPSPTPSSSWSPGGGGYGGWGASQGRDHRRGLNGGITPLNSISPLKKNFASNHIQLQKYAR
PSSAFAPKSWMEDSLNRADNIFPFPERPRTFDMHSLESSLIDIMRAENDSIKGRLNYSYPGSDSSLLINA
RTYGRRRGQSSLFPMEDGFLDDGRGDQPLHSGLGSPHCFTHQNGERVERYSRKVFVGGLPPDIDEDEITA
SFRRFGPLIVDWPHKAESKSYFPPKGYAFLLFQDESSVQALIDACIEEDGKLYLCVSSPTIKDKPVQIRP
WNLSDSDFVMDGSQPLDPRKTIFVGGVPRPLRAVELAMIMDRLYGGVCYAGIDTDPELKYPKGAGRVAFS
NQQSYIAAISARFVQLQHGEIDKRVEVKPYVLDDQLCDECQGARCGGKFAPFFCANVTCLQYYCEYCWAA
IHSRAGREFHKPLVKEGGDRPRHISFRWN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_026252

ORF Size: 2190 bp

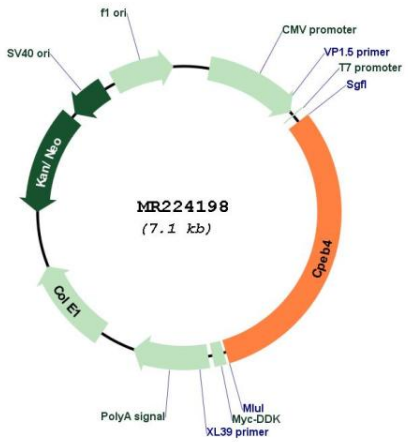
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_026252.2, NM_026252.3, NM_026252.4, NP_080528.2
RefSeq Size:	7655 bp
RefSeq ORF:	2190 bp
Locus ID:	67579
UniProt ID:	Q7TN98
Cytogenetics:	11 A4
MW:	80.1 kDa
Gene Summary:	Sequence-specific RNA-binding protein that binds to the cytoplasmic polyadenylation element (CPE), an uridine-rich sequence element (consensus sequence 5'-UUUUUAU-3') within the mRNA 3' UTR (PubMed:17024188). RNA binding results in a clear conformational change analogous to the Venus fly trap mechanism (By similarity). Regulates activation of unfolded protein response (UPR) in the process of adaptation to ER stress in liver, by maintaining translation of CPE-regulated mRNAs in conditions in which global protein synthesis is inhibited (PubMed:28092655). Required for cell cycle progression, specifically for cytokinesis and chromosomal segregation (By similarity). Plays a role as an oncogene promoting tumor growth and progression by positively regulating translation of t-plasminogen activator/PLAT (PubMed:22138752). Stimulates proliferation of melanocytes (By similarity). In contrast to CPEB1 and CPEB3, does not play role in synaptic plasticity, learning and memory (PubMed:24386439).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR224198