

## Product datasheet for **MR209600**

### **Crtc1 (NM\_001004062) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Crtc1 (NM_001004062) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Crtc1
Synonyms:	AI413414; Mect1; mKIAA0616; R74955; TORC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR209600 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGACTTCGAACAATCCGCGGAAATTTAGCGAGAAGATCGCACTGCACAACCAGAAGCAGGCGGAGG  
 AGACGGCGGCTTCGAGGAGTCAATGAAGGACCTGAGCCTGACGCGGGCCGCGCGCTTCAGCTGCAGAA  
 GTCCAGTACCTGCAGCTGGGCCCCAGCGTGGCCAGTACTACGGTGGTCCCTGCCCAACGTGAACCA  
 ATTGGAAGCAGCAGCTGGACCTGGCCTTCAGACCCATTTAGTCTCAGGCTGGACACGAGTCGGA  
 CCACACGACATCATGGGCTTGTGGACAGAGTATATCGTGAGCGTGGCAGACTTGGCTCCCGCACCCTG  
 ACCCTGTCACTAGACAAGCATGGGCGACAGGCTGACAGCTGCCCTATGGCACCCTGTACTCTCGCT  
 CCTGCGGACACCAGCTGGAGGAGCAACTCTGACTCTGCCCTGCACCAGACACAATGACACCCAGCC  
 AGGCAGAGTCTTACAGGCGGGTCCAGGATGCGCACCAGAAGAGAGTCTTACTGCTAACTGTCCAGG  
 AATGGAGGACACCGGGGCTGAGACAGACAAGACCTTTCTAAGCAGTCAATGGGACTCAAAGAAGGCGGGT  
 TCAGGCCCAAGTCTGTGAGGTCGCCGAATCAACATCTTCCGTCTGCAGACCAGGAGAACAACAACAG  
 CCCTGATCCCTGCCACCCACAACACAGGGGGTCCCTTCTGACCTCACCAACATCCACTTCCCCTCCCC  
 ACTCCCGACACCACTGGACCCTGAGGAGCTCCGTTCCCTGCTCTACCAGCTCCAGCAGCACCAGCAGC  
 CTTGCACATCTGGGCGTGGCGGCGCAGGCCAGGGTATGAACACCCCCAGCTCTTCTCCACAGCACCAGC  
 CAGCAGTCTGAGCCCTGTCCCTGAGCACAGAGGCCAGGCGGCAGCAGGCCAGCAGGTTGACCCAC  
 CCTGTCTCCGTTGTACCCATCACTCAGGCCGTGGCTATGGATGCCCTGTCTTGGAGCAGCAGCTGCC  
 TATGCCTTCTTACCCAGACTGGCTCCAGCAGCTCCCCACAGCCACGCCACCGCTCCACCTCCAC  
 CGGTATCCAGCAGCAGCCACCACTCCACAGGTGTCTGTGGGCTCCCCAGGGTGGTCCACTCTGCC  
 CAGTGCAGCCTGACTCGGGGGCCAGCTGCCACCACTCTCAGTACTGTACCATCCACTCTTCCCGAG  
 TCCCTACAGAGAACCAGGCCAGTCAACCAATGGGGATCGATGCCACTTCGGCACCAGCTCTGCAGTACC  
 GCACGAGTGCAGGGTACCTGCCACCCAGTCTCCACCTCTCCGGTCTCCAACCAAGGCTTCTCCCTGG  
 AAGCTCCCCACAGCACACGTCCACCCTGGGCGAGCTGTTGGGGATGCGTACTATGAGCAGCAGATGACA  
 GCCAGGCAGGCCAATGCTCTGTCCCGCAGCTGGAGCAGTTCAACATGATGGAGAACGCCATCAGCTCCA  
 GCAGCCTATAACAACCCGGGCTCCACACTCAACTATCCAGGCTGCCATGATGGGCTGAGCGGGAGCCA  
 CGGGGGCTACAGGACCCGACGAGCTCGGCTACACAGGCCACGGTGAATCCCCAACATCATCCTCAGG  
 GTGACAGGAGAGTACCACCGAGCTCTCTAAGGAAGTACGAGCAGCACTGGCAGGAGTCACTGATGTC  
 GCTTTGATTAGACCATCAGTTTCCACTGGACGAGCTGAAGATTGACCCTCTGACCTGGACGGACTCCA  
 TATGTTGAATGACCCAGACATGGTTTTAGCCGACCCAGCCACCGAGGACACCTTCCGAATGGACCGCTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

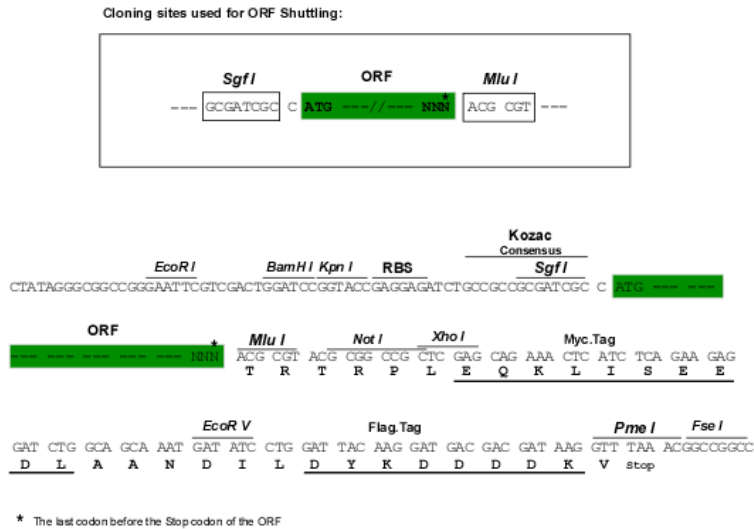
>MR209600 protein sequence  
 Red=Cloning site Green=Tags(s)

MATSNPRKFSEKIALHNQKQAEETAAFEEVMKDLSLTRAARLQLQKSQYLQLGPSRQYYGSLPNVNO  
 IGSSVDLAFQTPFQSSGLDTSRTTRHHGLVDRVYRERGRGSPHRRPLSVDKHGRQADSCPYGTVYLSP  
 PADTSWRRNTNSDLSALHQSTMTPSQAESFTGGSQDAHQRVLLLTVPGMEDTGAETDKTLKQSWDSKKAG  
 SRPKSCEVPGINIFPSADQENTTALIPATHNTGGSLPDLTNIHFPSPLPTPLDPEEPPFPALTSSTSGS  
 LAHLGVGGAGQGMNTPSSSPQHRPAVVSPLSLSTEARRQQAQVSPPLSPLSPITQAVAMDALSLEQQLP  
 YAFFTQTGSQPPPPQPPPPPPVSVQPPPPQVSVGLPQGGPLLPSASLTRGPQLPPLSVTVPSTLPQ  
 SPTENPGQSPMGIDATSAPALQYRTSAGSPATQSPSPVSNQGFSPGSSPQHTSTLGSVFGDAYYEQQMT  
 ARQANALSRQLEQFNMMENAISSSSLYNPGSTLNYSQAAMMGLSGSHGGLQDPQQLGYTGHGGIPNIILT  
 VTGESPPSLSKELSSTLAGVSDVSFSDSHQFPLDELKIDPLTLDGLHMLNDPMDVLADPATEDTFRMDRL

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_001004062

ORF Size: 1893 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\\_001004062.2](#), [NP\\_001004062.1](#)

RefSeq Size: 5674 bp

RefSeq ORF: 1893 bp

Locus ID: 382056

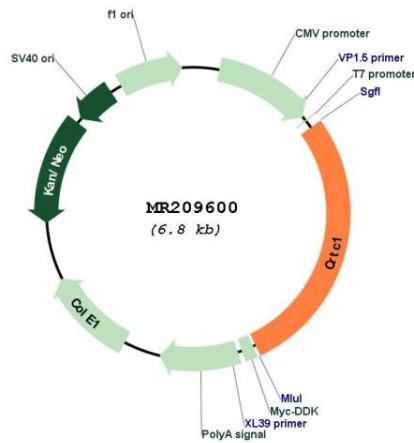
UniProt ID: [Q68ED7](#)

**Cytogenetics:** 8 B3.3

**MW:** 66.9 kDa

**Gene Summary:** Transcriptional coactivator for CREB1 which activates transcription through both consensus and variant cAMP response element (CRE) sites (PubMed:29211348). Acts as a coactivator, in the SIK/TORC signaling pathway, being active when dephosphorylated (PubMed:29211348). Acts independently of CREB1 'Ser-133' phosphorylation. Enhances the interaction of CREB1 with TAF4. Regulates the expression of specific CREB-activated genes such as the steroidogenic gene, StAR. Potent coactivator of PGC1alpha and inducer of mitochondrial biogenesis in muscle cells (By similarity). In the hippocampus, involved in late-phase long-term potentiation (L-LTP) maintenance at the Schaffer collateral-CA1 synapses. May be required for dendritic growth of developing cortical neurons. In concert with SIK1, regulates the light-induced entrainment of the circadian clock. In response to light stimulus, coactivates the CREB-mediated transcription of PER1 which plays an important role in the photic entrainment of the circadian clock.[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR209600