

Product datasheet for **MG209600**

Crtc1 (NM_001004062) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Crtc1 (NM_001004062) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Crtc1
Synonyms:	AI413414; Mect1; mKIAA0616; R74955; TORC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209600 representing NM_001004062
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGACTTCGAACAATCCGCGGAAATTTAGCGAGAAGATCGCACTGCACAACCAGAAGCAGGCGGAGG
 AGACGGCGGCCTTCGAGGAGTCAATGAAGGACCTGAGCCTGACGCGGGCCGCGCGGCTTCAGCTGCAGAA
 GTCCAGTACCTGCAGCTGGGCCCCAGCGTGGCCAGTACTACGGTGGGTCCCTGCCAACGTGAACCGAG
 ATTGGAAGCAGCAGCGTGGACCTGGCCTTCAGACCCCATTTTCAGTCTCAGGCCTGGACACGAGTCGGA
 CCACACGACATCATGGGCTTGTGGACAGAGTATATCGTGAGCGTGGCAGACTTGGCTCCCGCACCCTGC
 ACCCTGTCACTAGACAAGCATGGGCGACAGGCTGACAGCTGCCCTATGGCACCCTGTACTCTCGCT
 CCTGCGGACACCAGCTGGAGGAGCAACTCTGACTCTGCCCTGCACCAGACACAATGACACCCAGCC
 AGGCAGAGTCCTTACAGGCGGGTCCCAGGATGCGCACCAGAAGAGAGTCTTACTGCTAACTGTCCAGG
 AATGGAGGACACCGGGGCTGAGACAGACAAGACCCCTTTCTAAGCAGTCATGGGACTCAAAGAAGGCGGGT
 TCAGGCCCAAGTCTGTGAGGTCCCCGGAATCAACATCTTCCGTCTGCAGACCAGGAGAACACAACAG
 CCCTGATCCCTGCCACCCACAACACAGGGGGTCCCTTCTGACCTCACCAACATCCACTTCCCCTCCCC
 ACTCCCGACACCACTGGACCCTGAGGAGCTCCGTTCCCTGCTCTCACCAGCTCCAGCAGCACCAGCAGC
 CTTGCACATCTGGGCGTGGCGGCGCAGGCCAGGGTATGAACACCCCCAGCTCTTCTCCACAGCACCAGC
 CAGCAGTCGTAGCCCCCTGTCCCTGAGCACAGAGGCCAGGCGGCAGCAGGCCAGCAGGTGTACCCAC
 CCTGTCTCCGTTGTACCCATCACTCAGGCCGTGGCTATGGATGCCCTGTCTTGGAGCAGCAGCTGCC
 TATGCCTTCTTACCCAGACTGGCTCCCAGCAGCTCCCCACAGCCCCAGCCACCCTCCACCTCCAGC
 CGGTATCCAGCAGCAGCCACCCTCCACAGGTGTCTGTGGGCTCCCCAGGGTGGTCCACTCTGCC
 CAGTGCACGCTGACTCGGGGGCCAGCTGCCACCCTCAGTTACTGTACCATCCACTCTTCCCAG
 TCCCCTACAGAGAACCAGGCCAGTCAACCAATGGGGATCGATGCCACTTCGGCACCAGCTCTGCAGTACC
 GCACGAGTGCAGGGTACCTGCCACCCAGTCTCCACCTCTCCGGTCTCCAACCAAGGCTTCTCCCCTGG
 AAGCTCCCCACAGCACACGTCCACCCTGGGCGAGCGTGTGGGGATGCGTACTATGAGCAGCAGATGACA
 GCCAGGCAGGCCAATGCTCTGTCCCGCAGCTGGAGCAGTTCAACATGATGGAGAACGCCATCAGCTCCA
 GCAGCCTATAACAACCCGGGCTCCACACTCAACTATCCCAGGCTGCCATGATGGGTCTGAGCGGGAGCCA
 CGGGGGCTACAGGACCCGACGAGCTCGGCTACACAGGCCACGGTGAATCCCCAACATCATCCTCAGG
 GTGACAGGAGAGTACCACCGAGCTCTCTAAGGAAGTACGAGCAGCACTGGCAGGAGTCACTGATGTCA
 GCTTTGATTAGACCATCAGTTTCCACTGGACGAGCTGAAGATTGACCCTCTGACCCTGGACGGACTCCA
 TATGTTGAATGACCCAGACATGGTTTTAGCCGACCCAGCCACCGAGGACACCTTCCGAATGGACCGCCTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG209600 representing NM_001004062
 Red=Cloning site Green=Tags(s)

MATSNPRKFSEKIALHNQKQAEETAAFEEVMKDLSLTRAARLQLQKSQYLQLGPSRQYYGSLPNVNQ
 IGSSVDLAFQTPFQSSGLDTSRTTRHHGLVDRVYRERGLGSPHRRPLSVDKHGRQADSCPYGVYLS
 PADTSWRRTNSDSALHQSTMTPSQAESFTGGSQDAHQRVLLLTVPGMEDTGAETDKLSKQSWDSKKAG
 SRPKSCEVPGINIFPSADQENTTALIPATHNTGGSLPDLTNIHFPSPLPTPLDPEEPPFPALTSSTGS
 LAHLGVGGAGQGMNTPSSSPQHRPAVVSPLSLSTEARRQAQVVSPTLSPLSPITQAVAMDALSLEQQLP
 YAFFTQTGSQQPPPPQPPPPPPVSVQPPPPQVSVGLPQGGPLLPASLTRGPQLPPLSVTVPSTLPQ
 SPTENPGQSPMGIDATSAPALQYRTSAGSPATQSPSPVSNQGFSPGSSPQHTSTLGSVFGDAYYEQQMT
 ARQANALSRQLEQFNMMENAISSSSLYNPGSTLNYSQAAMMGLSGSHGGLQDPQQLGYTGHGGIPNIILT
 VTGESPPSLSKELSSTLAGVSDVSFSDSHQFPLDELKIDPLTLDGLHMLNDPDMVLADPATEDTFRMDRL

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

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:	<ol style="list-style-type: none"> 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
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]