

## Product datasheet for **RR203978**

### **Crtc1 (NM\_001047115) Rat Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Crtc1 (NM_001047115) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Crtc1
Synonyms:	Mect1; TORC-1; TORC1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RR203978 representing NM\_001047115  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGACTTCGAACAATCCGCGGAAATTTAGCGAGAAGATCGCACTGCACAACCAGAAGCAGGCGGAGG  
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 GTCGCACTATCTCCAACCTGGGCCCCAGCCGTGGTCACTACTATGGCGGGTCCCTGCCCAACGTGAACCA  
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**Protein Sequence:**

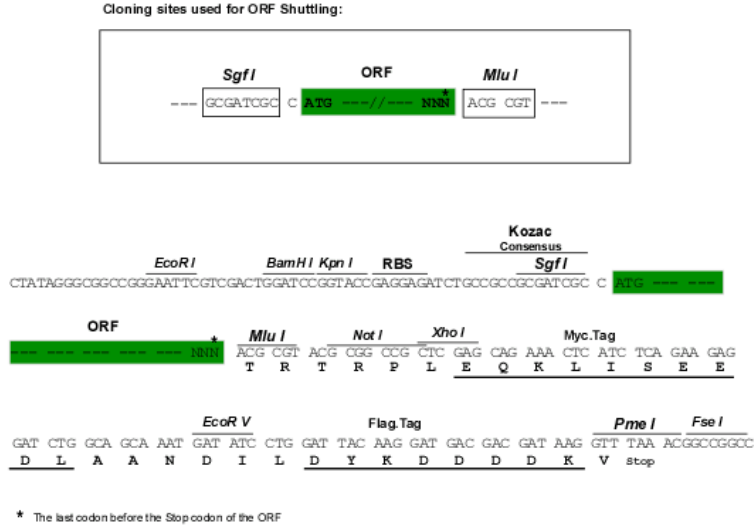
>RR203978 representing NM\_001047115  
 Red=Cloning site Green=Tags(s)

MATSNPRKFSEKIALHNQKQAEETAFAFEVMDKLSLTRAARLQLQKSQYLQLGSPRGQYYGGSLPNVNO  
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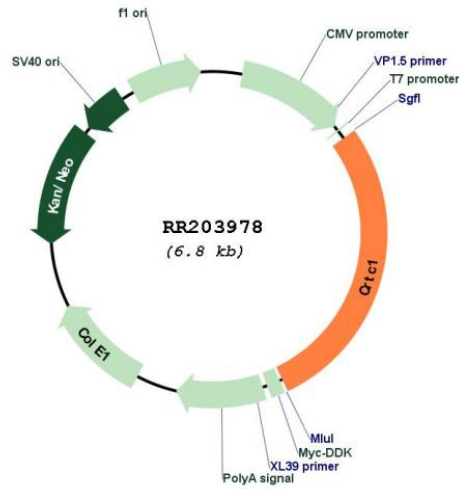
**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001047115

ORF Size: 1890 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_001047115.1</a> , <a href="#">NP_001040580.1</a>
<b>RefSeq Size:</b>	1893 bp
<b>RefSeq ORF:</b>	1893 bp
<b>Locus ID:</b>	684527
<b>UniProt ID:</b>	<a href="#">Q157S1</a>
<b>Cytogenetics:</b>	16p14
<b>MW:</b>	66.9 kDa
<b>Gene Summary:</b>	Transcriptional coactivator for CREB1 which activates transcription through both consensus and variant cAMP response element (CRE) sites. Acts as a coactivator, in the SIK/TORC signaling pathway, being active when dephosphorylated and 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 (By similarity).[UniProtKB/Swiss-Prot Function]