

## Product datasheet for **RC201668**

### **MCM5 (NM\_006739) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MCM5 (NM_006739) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MCM5
Synonyms:	CDC46; MGORS8; P1-CDC46
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC201668 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGTCGGGATTCGACGATCCTGGCATTCTACAGCGACAGCTTCGGGGGCGACGCCAGGCCGACGAGG  
 GGCAGGCCCGCAAATCGCAGCTGCAGAGGCGCTTCAAGGAGTTCCCTGCGGCAGTACCGAGTGGCACCGA  
 CCGCACGGGCTTACCTTCAAATACAGGGATGAACTCAAGCGGCATTACAACCTGGGGGAGTACTGGATT  
 GAGGTGGAGATGGAGGATCTGGCCAGCTTTGATGAGGACCTGGCCGACTACTTGTACAAGCAGCCAGCCG  
 AGCACCTCGAGCTGCTGGAGGAAGCTGCCAAGGAGGTAGCTGATGAGGTGACCCGGCCCCGGCCTTCTGG  
 GGAGGAGTGTCTCAGGACATCCAGGTCATGCTCAAGTCGGACGCCAGCCCTTCCAGCATTCTGAGCCTG  
 AAGTCGGACATGATGTCACACCTGGTGAAGATCCCTGGCATCATCATCGCGCCCTCTGCGGTCCGTGCCA  
 AGGCCACCCGCATCTCTATCCAGTGCCGACGCTGCCGCAACACCCTCACCAACATTGCCATGCGCCCTGG  
 CCTCGAGGGCTATGCCCTGCCCAGGAAGTGCAACACAGATCAGGCTGGGGCCCCAAATGCCATTGGAC  
 CCGTACTTCATCATGCCCGACAAATGCAAATGCGTGGACTTCCAGACCCTGAAGCTGCAGGAGCTGCCTG  
 ATGCAGTCCCCACGGGGAGATGCCCAGACACATGCAGCTCTACTGCGACAGGTACCTGTGTGACAAAGT  
 CGTCCCTGGGAACAGGGTTACCATCATGGGCATCTACTCCATCAAGAAGTTTGGCCTGACCACCAGCAGG  
 GGCCGTGACAGGGTGGCGTGGGCATCCGAAGCTCCTACATCCGTGTCTGGGCATCCAGGTGGACACAG  
 ATGGCTCTGGCCGACGCTTTGCTGGGGCCGTGAGCCCCAGGAGGAGGAGGAGTCCGTGCGCTGGCTGC  
 CCTCCCAAATGTCTATGAGGTGATCTCCAAGAGCATCGCCCCCTCATCTTTGGGGGCACAGACATGAAG  
 AAGGCCATTGCCTGCCTGCTCTTTGGGGCTCCGAAAGAGGCTCCCTGATGGACTTACTGCGCGAGGAG  
 ACATCAACCTGCTGATGCTAGGGGACCTGGGACAGCAAGTCCAGCTTCTGAAGTTTGGGAGAAGTG  
 TTCTCCCATTTGGGGTATACACGTCTGGGAAAGGCAGCAGCGCAGCTGGACTGACAGCCTCGGTGATGAGG  
 GACCCCTTCGTCCCGAATTTTCATCATGGAGGGCGGAGCCATGGTCTGGCCGATGGTGGGGTCTGTGTA  
 TTGACGAGTTTGACAAGATGCGAGAAGATGACCGTGTGGCAATCCACGAAGCCATGGAGCAGCAGACCAT  
 CTCTATCGCCAAGGCTGGGATCACCACCACCCTGAACTCCCGCTGCTCCGTCTGGCTGCTGCCAACTCA  
 GTGTTCCGGCCGCTGGGATGAGACGAAGGGGGAGGACAACATTGACTTCATGCCACCATCTTGTGCGCT  
 TCGACATGATCTTCATCGTCAAGGATGAGCACAATGAGGAGAGGGATGTGATGCTGGCCAAGCATGTCAT  
 CACTCTGCACGTGAGCGCACTGACACAGACACAGGCTGTGGAGGGCGAGATTGACCTGGCCAAGCTGAAG  
 AAGTTTATTGCCTACTGCCGAGTAAAATGTGGCCCCGGCTGTGACGAGAGGCTGCAGAGAACTGAAGA  
 ACCGCTACATCATCATGCGGAGCGGGGCCGTGACGACGAGAGGGACAGTGACCGCCGCTCCAGCATCCC  
 CATCACTGTGCGGACGCTGGAGGCCATTGTGCGCATCGCGGAAGCCCTCAGCAAGATGAAGCTGCAGCCC  
 TTCCGCACAGAGGCGAGATGTGGAGGAGGCCCTGCGGCTCTTCAAAGTGTCCACGTTGGATGCTGCCTGT  
 CCGGTACCCTGTGAGGGTGGAGGGCTTACCAGCCAGGAGGACCAGGAGATGCTGAGCCGCATCGAGAA  
 GCAGCTCAAGCGCCGCTTTGCCATTGGCTCCCAGGTGTCTGAGCACAGCATCATCAAGGACTTACCAAG  
 CAGAAATACCCGGAGCACGCCATCCACAAGGTGCTGCAGCTCATGCTGCGGCGCGGAGATCCAGCATC  
 GCATGCAGCGCAAGTTCTTACCGCTCAAG

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC201668 protein sequence  
 Red=Cloning site Green=Tags(s)

MSGFDDPGIFYSDFSFGGDAQADEGQARKSQLQRRFKEFLRQYRVGTDRTGFTFKYRDELKRHYNLGEYWI  
 EVEMEDLASFDEDLADYLYKQPAEHLQLLEAAKEVADEVTRPRPSGEEVLQDIQVMLKSDASPSSIRSL  
 KSDMMSHLVKIPGIIIAASAVRAKATRISIQCRSCRNTLNIAMRPGLEGYALPRKCNTDQAGRPKCLD  
 PYFIMPDKCKCVDFQTLKQLQELPDVPHGEMPRHMQLYCDRYLCKVVPGNRVTIMGIYSIKKFLTTSR  
 GRDRVGVGIRSSYIRVLGIQVDTDGSGRSFAGAVSPQEEEEFRRLAALPNVYEVISKSIAPSI FGGTDMK  
 KAIACLLFGGSRKRLPDGLTRRGDINLLMLGDPGTAKSLLKFVEKCSPIGVYTSKGSSAAGLTASVMR  
 DPSSRNFI MEGGAMVLADGGVVCIDFDMREDDRVAIHEAMEQQTISI AKAGITTTLSRCSVLAANS  
 VFRWDETKGEDNIDFMPTILSRFDMFIVKDEHNEERDVMLAKHVITLHVSALTQTQAVEGEIDLAKLK  
 KFIAYCRVKCGPRLSAEAAEKLKNRYIIMRSGARQHERSDRRSSIPITVRQLEAIVRIAEALSKMKLQP  
 FATEADVEEALRLFQVSTLDAALSGTL SGVEGFTSQEDQEMLSRIEKQLKRRFAIGSQVSEHSIIKDFTK  
 QKYPEHAHVKVLQLMLRGEIQHRMQRKVLRYRLK

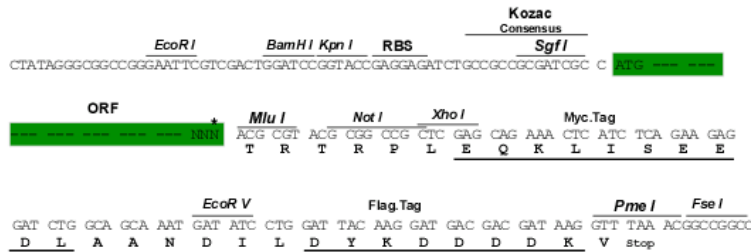
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk6004\\_d01.zip](https://cdn.origene.com/chromatograms/mk6004_d01.zip)

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



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

ACCN: NM\_006739

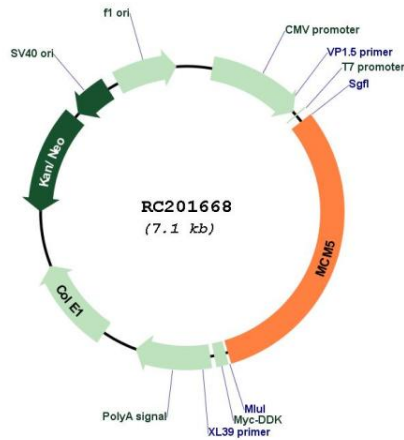
ORF Size: 2202 bp

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](#)

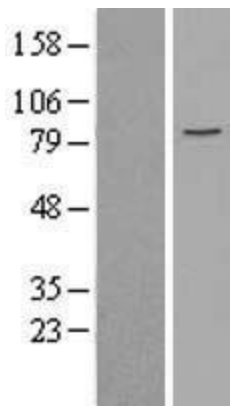
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_006739.4</a>
<b>RefSeq Size:</b>	2568 bp
<b>RefSeq ORF:</b>	2205 bp
<b>Locus ID:</b>	4174
<b>UniProt ID:</b>	<a href="#">P33992</a>
<b>Cytogenetics:</b>	22q12.3
<b>Domains:</b>	MCM
<b>Protein Families:</b>	Stem cell - Pluripotency, Transcription Factors
<b>Protein Pathways:</b>	Cell cycle, DNA replication
<b>MW:</b>	82.3 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is structurally very similar to the CDC46 protein from <i>S. cerevisiae</i> , a protein involved in the initiation of DNA replication. The encoded protein is a member of the MCM family of chromatin-binding proteins and can interact with at least two other members of this family. The encoded protein is upregulated in the transition from the G0 to G1/S phase of the cell cycle and may actively participate in cell cycle regulation. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC201668



Western blot validation of overexpression lysate (Cat# [LY402012]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201668 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).