

## Product datasheet for **MC229015**

### **Mcm8 (NM\_001291054) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Mcm8 (NM_001291054) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Mcm8
Synonyms:	5730432L01Rik
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC229015 representing NM\_001291054  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGTGGTGCTTATAGAGGCAGAGTTTTGGACGAGGAAGATCCAAAGCTGGAAAAGAGGAAGAGGTG  
 GTGGAACTTCTCAGGAAGGTGGAGAGAAAAGAGAAAACAGAGTTGACCTGAATGAAGCTTCAGGAAAGCA  
 CGTTCTGCACAAGCCTCACAACCGTTACTTCAACAGTCAACATTGGATCAGTTTATCCCGTATAAGGGC  
 TGGAAAGCTTACTTCTCTGAAGTTACAGTAATAACTCTCCCTTTATTGAGAAGATTCAAGCATTGAGA  
 AATTTTTCACAAGGCATATCGACTTATACGATAAGGATGAAATAGAAAAGAAAAGGAAGCATTGTTGGTGA  
 TTTTAAAGAACTGACAAAAGCTGATGAAATAACTAAGTTGATACCGGATATAGAAAACGCACTAAGAGAT  
 GCCCTGAGAAAACACTGGCGTGTATGGGGCTGGCAATACATCAGGTATTAAGTAAAGGACCTTAAAGGC  
 ATGCCGCCGAATTACAAGCTCAAGAGGGATTGTCTAACGGTGGAGAGACAATGGTAAATGTACCACATAT  
 TTATGCAAGAGTGTACAACATATGAGCCCTTGACACACCTCAAGAATATCCGAGCAACTTGCTATGGGAAA  
 TACATCTCTATACGAGGGACTGTGGTCCGGGTGAGCAACATAAAGCCTCTTTGCACCAACATGGCTTTTC  
 AGTGCCTGTCATGTGGAGAGATTGAGAGCTTCTCTGCCAGATGGAAAATACACCTTCTTACAAAAGTG  
 TCCGTGCCTGCGTGGCAGGGAGGTCAATTTGCTCCACTGCGCAGCTCTCCTCTCACAGTTACACTGGAC  
 TGGCAGTTGATCAAAATCCAGGAGCTGATGTCTGATGCACAGAGAGAAGCTGGTCGGATCCCTCGGACGA  
 TAGAATGTGAAGTGTTCACGATCTTGTAGATAGTTGTGTCCCAGGAGATACAGTACTGTTACTGGAAT  
 TGTCAAAGTCTCCAATTTGAAGAAGTTCTCGAAATAAGAATGATAAGTGCATGTTCTTTTGTACATT  
 GAGGCAAATTTCTGTTAGCAACAGCAAGGGGCCGAAAGCACAGACTGCAGAAGATGGTTGCAAGCATGGGA  
 CACTGATGGAGTTCTCCCTTAAAGACTCTATGCCATCCGAGAGATCCAGGCTGAAGCAACCTGCTCAA  
 GCTCGTTGTCAACTCACTCTGCTGCTATTTTTGGTCAATGAACTCGTCAAAGCAGGTCTGACGTTAGCA  
 CTCTTTGGCGGTAGCCAGAAGTACGCAGATGACAAAACAGAATTCCTTTGAGGAGACCCACATGTCC  
 TGATTGTTGGAGATCCAGGCTTGGGGAAGAGTCAAGTGTACAGGCAGCATGCAACGTGGCGCCACGTGG  
 TGTGTATGTTTGGAAAATACCACCACCAGCTCTGGTCTCACTGTGACTCTTTCAAAGGACAGTTCTCT  
 GGAGATTTTGTGTTGGAAGCTGGTGCCTTGTACTTGGTACCAAGGCATCTGTGGAATAGATGAATTTG  
 AAAAAAGGGGAACCAACATCAAGCCCTGTTAGAAGCCATGGAACAGCAGAGTATTAGCCTTGGCAAGGC  
 TGGGGTAGTTGACGCTCCCTGCAAGAAGTCCATTATTGCTGCTGCAATCCAGTCCGAGGACACTAC  
 AATAAAGCCAGAACGGTTTCTGAGAATTTAAAGATGGGGAGTCCCTACTGTCCAGATTCGATTTGGTCT  
 TTATCTTGTAGATACGCCAAATGAACAGCATGACCCTTACTTTCTGAACATGTGATCGCGATAAGAGC  
 TGGGAAGCAGAAAAGCGTTAGCAGTGCCACAGTCACTCGTGTGCTCAGTCAAGACTCAAATACTTCTGTA  
 CTTGAAGTGGTTTCTGAGAAACCATTATCAGAAAGACTAAAGGTGGCTCCTGGAGAACAGACAGATCCGA  
 TTCCACATCAGCTGTTGAGGAAGTACATTGGCTATGCACGGCAGTATGTCCACCAAGGTTATCTACGGA  
 CGCTGCTCAGGCCCTTCAAGGATTTTACCTGGAGCTCCGCAAGCAGAGCCAGCGGTGGGCAGCTCACCC  
 ATCACCCTCGGCAGCTGGAGTCTTTGATCCGTCTGACAGAGGCACGGGCAAGGTTAGAATTGAGAGAGG  
 AAGCAACTAGAGAAGATGCTGAAGATATAATTGAAATTAAGAGCATAGCATGCTAGGAACTTACTCAGA  
 TGAATTCGAAACCTGGACTTTGAGCGATCCCAGCATGGCTCTGGGATGAGCAACAGGTCAACAGCAAAA  
 AGATTTATTTCTGCTCTCAACAGCATTGCTGAAAGAAGTATAACAACATATTTCAATATCACTCACTTC  
 GTCAGATTGCTAAAGAAGTAAACATTCAAGTTGCCGATTTTGAAGAACTTCAATGGATCACTGAATGACCA  
 AGGTTATCTTTGAAGAAAGGCCAAAGATTTACCAACTTCAAATATG**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAAACATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001291054  
**Insert Size:** 2502 bp

<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<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>	<u><a href="#">NM_001291054.1</a></u> , <u><a href="#">NP_001277983.1</a></u>
<b>RefSeq Size:</b>	3481 bp
<b>RefSeq ORF:</b>	2502 bp
<b>Locus ID:</b>	66634
<b>UniProt ID:</b>	<u><a href="#">Q9CWW1</a></u>
<b>Cytogenetics:</b>	2 F2
<b>Gene Summary:</b>	<p>Component of the MCM8-MCM9 complex, a complex involved in the repair of double-stranded DNA breaks (DBSs) and DNA interstrand cross-links (ICLs) by homologous recombination (HR). Required for DNA resection by the MRE11-RAD50-NBN/NBS1 (MRN) complex by recruiting the MRN complex to the repair site and by promoting the complex nuclease activity. Probably by regulating the localization of the MNR complex, indirectly regulates the recruitment of downstream effector RAD51 to DNA damage sites including DBSs and ICLs. The MCM8-MCM9 complex is dispensable for DNA replication and S phase progression. However, may play a non-essential for DNA replication: may be involved in the activation of the prereplicative complex (pre-RC) during G(1) phase by recruiting CDC6 to the origin recognition complex (ORC) (By similarity). Probably by regulating HR, plays a key role during gametogenesis (PubMed:22771120). Stabilizes MCM9 protein (By similarity). [UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (a).</p>