

## Product datasheet for **MC220811**

### **Mcm8 (BC046780) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Mcm8 (BC046780) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Mcm8
Synonyms:	5730432L01Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >BC046780  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGTGGTGCTTATAGAGGCAGAGTTTTGGACGAGGAAGATCCAAAGCTGGAAAAGAGGAAGAGGTG  
 GTGGAACTTCTCAGGAAGGTGGAGAGAAAAGAGAAAACAGAGTTGACCTGAATGAAGCTTCAGGAAAGCA  
 CGTTCTGCACAAGCCTCACAACCGTTACTTCAACAGTCAACATTGGATCAGTTTATCCCGTATAAGGGC  
 TGGAAAGCTTACTTCTCTGAAGTTACAGTAATAACTCTCCCTTTATTGAGAAGATTCAAGCATTGAGA  
 AATTTTTACAAGGCATATCGACTTATACGATAAGGATGAAATAGAAAAGAAAAGGAAGCATTGTTGGTGA  
 TTTTAAAGAACTGACAAAAGCTGATGAAATAACTAAGTTGATACCGGATATAGAAAACGCACTAAGAGAT  
 GCCCTGAGAAAACACTGGCGTGTATGGGGCTGGCAATACATCAGGTATTAAGTAAAGACCTTGAAAGGC  
 ATGCCCGCAATTACAAGCTCAAGAGGGATTGTCTAACGGTGGAGAGACAATGGTAAATGTACCACATAT  
 TTATGCAAGAGTGTACAACATATGAGCCCTTGACACACCTCAAGAATATCCGAGCAACTTGCTATGGGAAA  
 TACATCTCTATACGAGGGACTGTGGTCCGGGTGAGCAACATAAAGCCTCTTTGCACCAACATGGCTTTTC  
 AGTGCCTGTCATGTGGAGAGATTGAGAGCTTCTCTGCCAGATGGAAAATACACCTTCTTACAAAAGTG  
 TCCGTGCCTGCGTGGCAGGGAGGTCAATTTGCTCCACTGCGCAGCTCTCCTCTCACAGTTACACTGGAC  
 TGGCAGTTGATCAAAATCCAGGAGCTGATGTCTGATGCACAGAGAGAAGCTGGTCGGATCCCTCGGACGA  
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 TGTCAAAGTCTCCAATTTGAAGAAGTTCTCGAAATAAGAATGATAAGTGCATGTTCTTTTGTACATT  
 GAGGCAAATTTCTGTTAGCAACAGCAAGGGGCCGAAAGCACAGACTGCAGAAGATGGTTGCAAGCATGGGA  
 CACTGATGGAGTTCTCCCTTAAAGACCTCTATGCCATCCGAGAGATCCAGGCTGAAGAACCTGTCTCAA  
 GCTCGTTGTCAACTCACTCTGCTGTCAATTTTGGTCAATGAACTCGTCAAAGCAGGTCTGACGTTAGCA  
 CTCTTTGGCGGTAGCCAGAAGTACGCAGATGACAAAACAGAATTCCTTTCGAGGAGACCCACATGTCC  
 TGATTGTTGGAGATCCAGGCTTGGGGAAGAGTCAAGTGTACAGGCAGCATGCAACGTGGCGCCACGTGG  
 TGTGTATGTTTGGAAAATACCACCACCAGCTCTGGTCTCACTGTGACTCTTTCAAAGGACAGTTCTCT  
 GGAGATTTTGTGTTGGAAGCTGGTGCCTTGTACTTGGTACCAAGGCATCTGTGGAATAGATGAATTTG  
 AAAAAAGGGGAACCAACATCAAGCCCTGTTAGAAGCCATGGAACAGCAGAGTATTAGCCTTGGCAAGGC  
 TGGGGTAGTTGACGCTCCCTGCAAGAAGTCCATTGTTGCTGCTGCAAAATCCAGTCGGAGGACACTAC  
 AATAAAGCCAGAACGGTTTCTGAGAATTTAAAGATGGGGAGTGCCTACTGTCCAGATTCGATTTGGTCT  
 TTATCTTGTAGATACGCCAAATGAACAGCATGACCCTACTTTCTGAACATGTGATCGCGATAAGAGC  
 TGGGAAGCAGAAAAGCGTTAGCAGTGCCACAGTCACTCGTGTGCTCAGTCAAGACTCAAATACTTCTGTA  
 CTTGAAGTGGTTTCTGAGAAACCATTATCAGAAAGACTAAAGGTGGCTCCTGGAGAACAGACAGATCCGA  
 TTCCACATCAGCTGTTGAGGAAGTACATTGGCTATGCACGGCAGTATGTCCACCAAGGTTATCTACGGA  
 CGCTGCTCAGGCCCTTCAAGATTCTACCTGGAGCTCCGCAAGCAGAGCCAGCGGTGGGACGCTCACCC  
 ATCACCCTCGGCAGCTGGAGTCTTTGATCCGTCTGACAGAGGCACGGGCAAGGTTAGAATTGAGAGAGG  
 AAGCAACTAGAGAAGATGCTGAAGATATAATTGAAATATGAAGCATAGCATGCTAGGAACTTACTCAGA  
 TGAATTCGAAAACCTGGACTTTGAGCGATCCAGCATGGCTCTGGGATGAGCAACAGGTCAACAGCAAAA  
 AGATTTATTTCTGCTCTCAACAGCATTGCTGAAAAGAACTTATAACAACATATTTCAATATCACTCACTTC  
 GTCAGATTGCTAAAGAACTAAACATTCAAGTTGCCGATTTTGAAGAACTTCAATGGATCACTGAATGACCA  
 AGGTTATCTTTGAAGAAAGGCCAAAGATTTACCAACTTCAAATATGTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** BC046780  
**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>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="#">BC046780</a> , <a href="#">AAH46780</a>
<b>RefSeq Size:</b>	2908 bp
<b>RefSeq ORF:</b>	2501 bp
<b>Locus ID:</b>	66634
<b>Cytogenetics:</b>	2 F2
<b>Gene Summary:</b>	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]