

Product datasheet for **MC221745**

Mcm8 (NM_025676) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mcm8 (NM_025676) 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: >MC221745 representing NM_025676
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGTGGTGCTTATAGAGGCAGAGTTTTGGACGAGGAAGATCCAAAGCTGGAAAAGAGGAAGAGGTG
 GTGGAACTTCTCAGGAAGGTGGAGAGAAAAGAGAAAACAGAGTTGACCTGAATGAAGCTTCAGGAAAGCA
 CGTTCTGTTTACAGTAATAACTCTCCCTTTATTGAGAAGATTCAAGCATTGAGAAATTTTACAAGG
 CATATCGACTTATACGATAAGGATGAAATAGAAAGAAAAGGAAGCATTGGTGGATTTAAAGAACTGA
 CAAAAGCTGATGAAATAACTAATTGATACCCGATATAGAAAACGCACTAAGAGATGCCCTGAGAAAAC
 ACTGGCGTGTATGGGCTGGCAATACATCAGGTATTAACCTAAGGACCTTGAAGGCATGCCGCCGAATTA
 CAAGCTCAAGAGGGATTGCTAACGGTGGAGAGACAATGGTAAATGTACCACATATTTATGCAAGAGTGT
 ACAACTATGAGCCCTTGACACACCTCAAGAATATCCGAGCAACTGCTATGGGAAATACATCTCTATACG
 AGGGACTGTGGTCCGGGTCAGCAACATAAAGCCTCTTTCACCAACATGGCTTTTCAGTGGCTGCATGT
 GGAGAGATTGAGAGCTTTCCTCTGCCAGATGGAAAATACACCCTTCTACAAAGTGTCTGTGCCTGCGT
 GCCGAGGGAGGTCATTTGCTCCACTGCGCAGCTCTCTCTCACAGTTACTGGACTGGCAGTTGATCAA
 AATCCAGGAGCTGATGTCTGATGCACAGAGAGAAGCTGGTCCGATCCCTCGGACGATAGAATGTGAAGT
 GTTCACGATCTTGTAGATAGTTGTGCCAGGAGATACAGTACTGTTACTGGAATTGTCAAAGTCTCCA
 ATTTCTGAAGAAGTTCTCGAAATAAGAATGATAAGTGCATGTTCCCTTTGTACATTGAGGCAAATCTGT
 TAGCAACAGCAAGGGGCCGAAAGCACAGACTGCAGAAGATGGTTGCAAGCATGGGACACTGATGGAGTTC
 TCCCTTAAAGACCTCTATGCCATCCGAGAGATCCAGGCTGAAGAGAACCTGCTCAAGCTCGTTGTCAACT
 CACTCTGCTCTCATTTTTGGTCATGAACTCGTCAAAGCAGGCTGACGTTAGCACTCTTGGCGGTAG
 CCAGAAGTACGCAGATGACAAAAACAGAATTCCCATTCGAGGAGACCCACATGTCCTGATTGTTGGAGAT
 CCAGGCTTGGGGAAGAGTCAGATGCTACAGGCAGCATGCAACGTGGCGCCACGTGGTGTGTATGTTGTG
 GAAATACCACCACCAGCTCTGGTCTCACTGTGACTCTTTCAAAGGACAGTTCTCTGGAGATTTGCTTT
 GGAAGCTGGTGCCTTGTACTTGGTGACCAAGGCATCTGTGGAATAGATGAATTTGATAAAATGGGGAAC
 CAACATCAAGCCCTGTTAGAAGCCATGGAACAGCAGAGTATTAGCCTTGCGAAGGCTGGGTAGTTTGA
 GCCTCCCTGCAAGAACTCCATTATTGCTGCTGCAAAATCCAGTCGGAGGACACTACAATAAAGCCAGAAC
 GGTTTCTGAGAATTTAAGATGGGGAGTGCCTACTGTCCAGATTCGATTTGGTCTTTATCTTGTAGAT
 ACGCCAAATGAACAGCATGACCCTTACTTTCTGAACATGTGATCGCGATAAGAGCTGGGAGCAGAAAAG
 CGGTTAGCAGTGCCACAGTCACTCGTGTGCTCAGTCAAGACTCAAATACTTCTGTACTTGAAGTGGTTTC
 TGAGAAACCATTATCAGAAAGACTAAAGGTGGCTCCTGGAGAACAGACAGATCCGATTCACATCAGCTG
 TTGAGGAAGTACATTGGCTATGCACGGCAGTATGTCCACCAAGGTTATCTACGGACGCTGCTCAGGCC
 TTCAGGATTTCTACCTGGAGCTCCGCAAGCAGAGCCAGCGGTGGGACAGCTCACCCATCACCACTCGGCA
 GCTGGAGTCTTTGATCCGTCTGACAGAGGCACGGCAAGGTTAGAATTGAGAGAGGAAGCAACTAGAGAA
 GATGCTGAAGATATAATTGAAATTAAGCATAGCATGCTAGGAACTTACTCAGATGAATTCGAAAACC
 TGGACTTTGAGCGATCCCAGCATGGCTCTGGGATGAGCAACAGGTC AACAGCAAAAAGATTTATTTCTGC
 TCTCAACAGCATTGCTGAAAGAACTTATAACAACATATTTCAATATCATCAACTTCGTGAGATTGCTAAA
 GAACATAACATTGAGTTGCCGATTTTGAAAACCTTATTGGATCACTGAATGACCAAGGTTATCTCTTGA
 AGAAAGGCCCAAAGATTTACCAACTTCAAACATATG**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul
ACCN: NM_025676
Insert Size: 2418 bp

OTI Disclaimer:	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).
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_025676.4 , NP_079952.2
RefSeq Size:	3397 bp
RefSeq ORF:	2418 bp
Locus ID:	66634
UniProt ID:	Q9CWW1
Cytogenetics:	2 F2
Gene Summary:	<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 (2) lacks an alternate in-frame exon in the 5' coding region, compared to variant 1, resulting in an isoform (b) that is shorter than isoform a.</p>