

Product datasheet for **RN213458**

Mcm8 (NM_001106514) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mcm8 (NM_001106514) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Mcm8
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >RN213458 representing NM_001106514
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGAGTGGTGCATACAGAGGCAGAGTTTTGGACGAGGACGATCCAAAAGTGGAAAAGAGGAAGAGGTG
GTGGAACTTCTCAGGAAGGTGGAGAGACAGAAGTACCTGAGTAAAGCTGCAGGAAATCATGCTTCTGA
ACAAGCCTCACAACTTTACTTCAACAGTCAACATTGGATCAGTTTATACCGTATAAGGGCTGGAAGCTT
TACTTCTCTGAAGTTTACAGTAATAACTCTCTTACTGAGAAGATCCAAGCATTGAGAAATTTTCA
CAAGGCATATCGACTTATGATAAGGATGAAATAGAAAGAAAGGGAAGCATCTTGGTGGATTTAAAGA
ACTGACAAAAGACAATGAAATAACTAACTTGATACCAGATATAGAAAATGCACTAAGAGATGCCCTGAG
AAAACACTGGCATGTATGGGACTGGCAATACATCAGGTATTAATAAGGACCTTGAAGGCACGCAGCTG
AATTACAAGCTCAAGAGGGTGTGTAAATGGTGGAGGAACCATGGTAAATGTCCACATATTTATGCGAG
AGTGTACAACATGAGCCCTAACACACCTCAAGAACATCCGAGCAACTGCTATGGGAAGTACATCTCT
ATAAGAGGGACAGTGGTTCGAGTCAGTAACATAAAGCCTCTGTGCACAAAATGGCTTTTCAAGTGTGCTG
CATGTGGAGAGATTACAGAGCTTCTCTCCGGATGGAAAATACAATCTTCCAACAAAGTGTCTGTGCC
TGCGTGTGCGAGGGAGTCAATTTACGCCATTGCGCAGTTCTCTCTCACCGTACAAATGGACTGGCAGTTG
ATCAAAATCCAGGAGCTGATGTCTGATGCACAGAGAGAAGCTGGTCCGATCCCTCGAACCATAGAATGTG
AACTTGTTCATGATCTTGTAGATAGCTGTGCCAGGAGATACGGTACTGTTACTGGAATTGTCAAAGT
TTCAAATAGTGAAGAAGTTCTCGATCTAAGAATGATAAGTGCATGTTCTTTTGTACATTGAAGCAAAC
TCTGTTAGCAACAGCAAAGGACAGAAAGCCAGACTGCAGAGGATGGTTGCAAGCATGGAACACTGATGG
AGTTCTCCCTTAAAGACCTGTATGCCATCCAAGAGATCCAGGCTGAAGAGAACCTGCTCAAGCTCATTGT
CAACTCACTTTGCTCTGTCAATTTTGGTCACTGAAGTGTAAAGCAGGACTGATGTTAGCGCTATTTGGC
GGTAGCCAGAAGTACGCAGATGACAAAAACAGGATTCTCTTTCGAGGAGACCCACACGCTCTGATTGTTG
GAGATCCAGGCTTGGGAAGAGTCAAGTGTGCTGCAGGCAGCATGCAACGTGGCGCCACGTGGTGTGTATGT
TTGTGGAAATACGGCCACCAGCTCTGGTCTGACGGTACTCTTTCAAAAGACAGTTCTCAGGAGACTTC
GCTTTGGAAGCTGGTGCCTGGTACTTGGTGACCAAGGCATTTGTGGAATAGATGAATTTGATAAAATGG
GGAATCAGCATCAAGCCTGTTAGAAAGCCATGGAACAGCAGAGCATTAGCCTTGTAAAGCCGTTGGT
TTGCAGCCTCCCTGCAAGAACCTCCATTATTGCTGCGGCAAAATCCAGTCCGAGGACACTACAATAAAGCG
AGGACAGTTTCTGAGAATTTAAAGATGGGAGTGCCTGTGTCCAGTTTCGATTTGGTCTTTATCTTGT
TAGATACACCAAATGAACAGCAGCAGCAGTACTTCTGAACATGTGATCGCAATAGAGCTGGGAAGCA
GAGAGCGTTAGCAGTGCCACAGTCTCTCGTGTGCTCAGTCAAGACTCAAATACTTCTGTAAGTGT
GTTTCCGAGAAACCGTTATCAGAAAGACTAAAGGTGGCTCCTGGAGAAAAGACAGATCCGATCCACATC
AGCTGCTGAGGAAGTACATAGGCTATGCACGGCAGTATGTCCATCCAAGTTATCCACGGAAGCTGCTCA
GGCTCTTACAGGATTTCTACCTGGAGTGCAGCAAGCAGAGCCAGCGGTGGGACGCTCGCCCATCACCCT
CGGCAGCTGGAATCTTTGATCCGTCTGACGGAGGCAGAGCAAGGTTAGAATTGAGAGAGGAAGCAACTA
AAGAAGACGCTGAAGATATAATTGAAATTAAGCATAGCATGCTAGGAACTTACTCAGATGAATTTGG
AAACCTGGACTTTGAGCGATCCCAGCATGGCTCTGGAATGAGCAACAGGTCAACAGCTAAAAGATTTATT
TCTGCTCTCAACAGCATTGCTGAAAGAACGTATAACAACATATTTCAATTTCACTCAACTTCGTCAGATTG
CTAAAGAGCTAAACATTCAGTTGCTGACTTTGAAAACCTCATTGGATCACTGAATGACCAGGGTTATCT
CCTGAAAAAGGCCAAAGATTTATCAACTTCAAACATATGTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001106514
Insert Size: 2493 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_001106514.1 , NP_001099984.1
RefSeq Size:	3226 bp
RefSeq ORF:	2493 bp
Locus ID:	296178
UniProt ID:	D3ZVK1
Cytogenetics:	3q36
Gene Summary:	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). Probably by regulating HR, plays a key role during gametogenesis. Stabilizes MCM9 protein.[UniProtKB/Swiss-Prot Function]