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Product datasheet for SC118658

MCM3 (NM_002388) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MCM3 (NM_002388) Human Untagged Clone
Tag:	Tag Free
Symbol:	MCM3
Synonyms:	HCC5; P1-MCM3; P1.h; RLFB
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>NCBI ORF sequence for NM_002388, the custom clone sequence may differ by one or more nucleotides

ATGCTCCCAAGGTCCCCGCCTCTTCCTCGAGGTAACCTTTGGTGGCGGGAAGAGTTCGGAAGTTTTCGCG
CCGGGGGTGGAGTCATCCTGGGAACCTCCACGCGACTTTGGTGGAGGTAGTTCTTTGGCAGCGGGCATGGC
GGGTACCGTGGTGCTGGACGATGTGGAGCTGCGGGAGGCTCAGAGAGATTACCTGGACTTCCTGGACGAC
GAGGAAGACCAGGGAATTTATCAGAGCAAAGTTCGGGAGCTGATCAGTGACAACCAATACCGGCTGATTG
TCAATGTGAATGACCTGCGCAGGAAAAACGAGAAGAGGGCTAACCGGCTTCTGAACAATGCCTTTGAGGA
GCTGGTTGCCTTCCAGCGGGCCTTAAAGGATTTTGTGGCCTCCATTGATGCTACCTATGCCAAGCAGTAT
GAGGAGTTCTACGTAGGACTGGAAGGCAGCTTTGGCTCCAAGCACGTCTCCCCGCGGACTCTTACCTCCT
GCTTCCTCAGCTGTGTGGTCTGTGTGGAGGGCATTGTCACTAAATGTTCTCTAGTTCGTCCCAAAGTCGT
CCGCAGTGTCCACTACTGTCCTGCTACTAAGAAGACCATAGAGCGACGTTATTCTGATCTCACCACCCTG
GTGGCCTTTCCCTCCAGCTCTGTCTATCCTACCAAGGATGAGGAGAACAATCCCCTTGAGACAGAATATG
GCCTTTCTGTCTACAAGGATCACCAGACCATCACCATCCAGGAGATGCCGGAGAAGGCCCCAGCCGGCCA
GCTCCCCCGCTCTGTGGACGTCATTCTGGATGATGACTTGGTGGATAAAGCGAAGCCTGGTGACCGGGTT
CAGGTGGTGGGAACCTACCGTTGCCTTCCTGGAAAGAAGGGAGGCTACACCTCTGGGACCTTCAGGACTG
TCCTGATTGCCTGTAATGTTAAGCAGATGAGCAAGGATGCTCAGCCCTCTTTCTCTGCTGAGGATATAGC
CAAGATCAAGAAGTTCAGTAAAACCCGATCCAAGGATATCTTTGACCAGCTGGCCAAGTCATTGGCCCCA
AGTATCCATGGGCATGACTATGTCAAGAAAGCAATCCTCTGCTTGCTCTTGGGAGGGGTGGAACGAGACC
TAGAAAATGGCAGCCACATCCGTGGGGACATCAATATTCTTCTAATAGGAGACCCATCCGTTGCCAAGTC
TCAGCTTCTGCGGTATGTGCTTTGCACTGCACCCCGAGCTATCCCCACCACTGGCCGGGGCTCCTCTGGA
GTGGGTCTGACGGCTGCTGTCACCACAGACCAGGAAACAGGAGAGCGCCGTCTGGAAGCAGGGGCCATGG
TCCTGGCTGACCGAGGCGTGGTTTGCATTGATGAATTTGACAAAATGTCTGACATGGATCGCACAGCCAT
CCATGAAGTGATGGAGCAGGGTCGAGTGACCATTGCCAAGGCTGGCATCCATGCTCGGCTGAATGCCCGC
TGCAGTGTTTTGGCAGCTGCCAACCCTGTCTACGGCAGGTATGACCAGTATAAGACTCCAATGGAGAACA
TTGGGCTACAGGACTCACTGCTGTCACGATTTGACTTGCTCTTCATCATGCTGGATCAGATGGATCCTGA
GCAGGATCGGGAGATCTCAGACCATGTCCTTCGGATGCACCGTTACAGAGCACCTGGGGAGCAGGATGGC
GATGCTATGCCCTTGGGTAGTGCTGTGGATATCCTGGCCACAGATGATCCCAACTTTAGCCAGGAAGATC
AGCAGGACACCCAGATTTATGAGAAGCATGACAACCTTCTACATGGGACCAAGAAGAAAAAGGAGAAGAT
GGTGAGTGCAGCATTCATGAAGAAGTACATCCATGTGGCCAAAATCATCAAGCCTGTCCTGACACAGGAG
TCGGCCACCTACATTGCAGAAGAGTATTCACGCCTGCGCAGCCAGGATAGCATGAGCTCAGACACCGCCA
GGACATCTCCAGTTACAGCCCGAACACTGGAAACTCTGATTCGACTGGCCACAGCCCATGCGAAGGCCCG
CATGAGCAAGACTGTGGACCTGCAGGATGCAGAGGAAGCTGTGGAGTTGGTCCAGTATGCTTACTTTAAG
AAGGTTCTGGAGAAGGAGAAGAAACGTAAGAAGCGAAGTGAGGATGAATCAGAGACAGAAGATGAAGAGG
AGAAAAGCCAAGAGGACCAGGAGCAGAAGAGGAAGAGAAGGAAGACTCGCCAGCCAGATGCCAAAGATGG
GGATTCATACGACCCCTATGACTTCAGTGACACAGAGGAGGAAATGCCTCAAGTACACACTCCAAAGACG
GCAGACTCACAGGAGACCAAGGAATCCCAGAAAGTGGAGTTGAGTGAATCCAGGTTGAAGGCATTCAAGG
TGGCCCTCTTGGATGTGTTCCGGGAAGCTCATGCGCAGTCAATCGGCATGAATCGCCTCACAGAATCCAT
CAACCGGGACAGCGAAGAGCCCTTCTCTTCAGTTGAGATCCAGGCTGCTCTGAGCAAGATGCAGGATGAC
AATCAGGTCATGGTGTCTGAGGGCATCATCTTCCTCATCTGA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_002388 unedited
TTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGCTCCACGCGACTTT
GGTGGAGGTAGTTCTTTGGCAGCGGGCATGGCGGGTACCGTGGTGCTGGACGATGTGGAG
CTGCGGGAGGCTCAGAGAGATTACCTGGACTTCCTGGACGACGAGGAAGACCAGGGAATT
TATCAGAGCAAAGTTCGGGAGCTGATCAGTGACAACCAATACCGGCTGATTGTCAATGTG
AATGACCTGCGCAGGAAAAACGAGAAGAGGGCTAACCGGCTTCTGAACAATGCCTTTGAG
GAGCTGGTTGCCTTCCAGCGGGCCTTAAAGGATTTTGTGGCCTCCATTGATGCTACCTAT
GCCAAGCAGTATGAGGAGTTCTACGTAGGACTGGAAGGCAGCTTTGGCTCCAAGCACGTC
TCCCCGCGGACTCTTACCTCCTGCTTCCTCAGCTGTGTGGTCTGTGTGGAGGGCATTGTC
ACTAAATGTTCTCTAGTTCGTCCCAAAGTCGTCCGCAGTGTCCACTACTGTCCTGCTACT
AAGAAGACCATAGAGCGACGTTATTCTGATCTCACCACCCTGGTGGCCTTTCCCTCCAGC
TCTGTCTATCCTACCAAGGATGAGGAGAACAATCCCCTTGAGACAGAATATGGCCTTTCT
GTCTACAAGGATCACCAGACCATCACCATCCAGGAGATGCCGGAGAAGGGCCCCAGCCGG
CCAGCTCCCCCGCTCTGTGGACGTCATTCTGGATGATGACTTGGTGGATAAGCGAACCTG
GTGACCGGTTCAGGTGTGGGGAACTACCGGTGNCTTCTGGAAGAGGGAGGCTACACTNTG
GGACTTTCAGACTGGCCTGATTGCTGTAATGGTACCAA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_002388 unedited
CTTGGACGCGGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTGTACGAAATGGC
TAAGTTTATTCAACACTCTCGGAATTCATCTGGATATTGGGTTTGTTTTGTGATACAATA
CATATTCACCTTAACTGGTGCTACTGCAAAGAAAGCTTTCTTGACCTGCATGACGTGCCT
CAGAGCTTCTCTCCACCAATTGGAACCACCCAAAGCCTAGTCTAGACCAAAGTGCTCTGG
AGAAAAAAAACAAAACAAAAAAACAGCAAACAGAAAACAGTTGTGCCCCCAAAAGTACTC
AGAAGTCATATGTTATTTACAATTGGGTTTGTGTGGGATGGGAAGTAGGGCGGATGAGCC
AGTGCTTTTGCAATGAAGATGCAATAGTCATTGTCCTCTCCCACTGTCTCCTCTTTCCTC
ACCCCATGGCAGCTTTCATGACCCATTCCCAAAGGGTCCACCGAGTCCTGAACTCAGCTT
CATCACCAACATTCCTCGCCTTCAGTTGAATTCAACACTGTTAAGGGAGTAGAGGCAAAG
ACTTGGGTCAGGGAGAGGGTGGGAAACACAGAACAAACTCTCTCGGCACAACCCAAGTTC
AGAGACGAGGCCTCCTCAGATGAGGAAGATGATGCCCTCAGACACCATGACCTGATTGTC
ATCCTGCATCTTGCTCAGAGCAGCCTGGATCTCAACTGAAGAGAANGGGCTCTCGCTGTC
CCGGNTGATGGGATCTGTGAGGCGATTCATGCCGATTGACTGCGCATGAGCTTCCCGGAA
CACATNNCAGAGGGCACCTTGNATGCCNTCACCTGNATCACTCACTCCACTTTCTGGATN
NCTGGNCTCTGTGATCTGCCGCTTTGGATGTGTACTGAGCATTNCTCCTTGNGTACTGAG
TCTAAGGTCGATGATCCCATCTTGCATCTGCTGGAGGCTNCTTCCTTCTTTTGGTCTGCC
CCTGGCTTTCTCTTAT

Restriction Sites: NotI-NotI

ACCN: NM_002388

Insert Size: 2840 bp

OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. 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
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:	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_002388.3, NP_002379.2
RefSeq Size:	3143 bp
RefSeq ORF:	2427 bp
Locus ID:	4172
UniProt ID:	P25205
Cytogenetics:	6p12.2
Domains:	MCM, AAA
Protein Families:	Druggable Genome, Stem cell - Pluripotency, Transcription Factors
Protein Pathways:	Cell cycle, DNA replication

Gene Summary: The protein encoded by this gene is one of the highly conserved mini-chromosome maintenance proteins (MCM) that are involved in the initiation of eukaryotic genome replication. The hexameric protein complex formed by MCM proteins is a key component of the pre-replication complex (pre_RC) and may be involved in the formation of replication forks and in the recruitment of other DNA replication related proteins. This protein is a subunit of the protein complex that consists of MCM2-7. It has been shown to interact directly with MCM5/CDC46. This protein also interacts with and is acetylated by MCM3AP, a chromatin-associated acetyltransferase. The acetylation of this protein inhibits the initiation of DNA replication and cell cycle progression. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2018]
Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).