

Product datasheet for **RG238816**

MCM7 (NM_001278595) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MCM7 (NM_001278595) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MCM7
Synonyms:	CDC47; MCM2; P1.1-MCM3; P1CDC47; P85MCM; PNAS146; PPP1R104
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG238816 representing NM_001278595.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGGTGGTGGCCACTTACACTTGTGACCAGTGTGGGCGAGAGACCTACCAGCCGATCCAGTCTCCCACT
TTCATGCCTCTGATCATGTGCCAAGCCAGGAGTGCCAAACCAACCGCTCAGGAGGGCGGCTGTATCTG
CAGACACGGGGCTCCAGATTTCATAAATCCAGGAGATGAAGATGCAAGAACATAGTGATCAGGTGCCT
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GACCACGTGAGCGTCACTGGTATTTTCTTGCCAACTCTGCGCACTGGGTTCCGACAGGTGGTACAGGGT
TACTCTCAGAAACCTACCTGGAAGCCCATCGGATTGTGAAGATGAACAAGAGTGAGGATGATGAGTCT
GGGGCTGGAGAGCTCACCAGGGAGGAGCTGAGGCAAATTCAGAGGAGGATTTCTACGAAAAGCTGGCA
GCTTCAATCGCCCGAGAAATACGGGCATGAAGATGTGAAGAAGGCACTGCTGCTCTGCTAGTCGGG
GGTGTGGACCAGTCTCCTCGAGGCATGAAAATCCGGGGCAACATCAACATCTGTCTGATGGGGATCCT
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CGGGGCTCCTCAGGAGTGGGGCTTACGGCAGCTGTGCTGAGAGACTCCGTGAGTGGAAGTACCTTA
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GCCGACCGCACAGCCATCCACGAGGTGATGGAGCAGCAGACCATCTCCATTGCCAAGGCCGGCATTCTC
ACCACACTCAATGCCCGCTGCTCCATCCTGGTGGCCCAACCTGCCTACGGGGCTACAACCTCGC
CGCAGCCTGGAGCAGAACATACAGCTACCTGCTGCACTGCTCTCCCGTTTGACCTCCTCTGGCTGATT
CAGGACCGGCCGACCGAGACAATGACCTACGGTTGGCCAGCACATCACCTATGTGCACCAGCACAGC
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GTGATATTTGCCACCGTCCGTGAAGTGTCTCAGGGGGCCGAAGTGTCCGGTTCTCTGAGGCAGAGCAG
CGCTGTGTATCTCGTGGCTTACACCCGCCAGTTCAGGCGGCTCTGGATGAATATGAGGAGCTCAAT
GTCTGGCAGGTCAATGCTTCCCGACACGGATCACTTTTGTG
ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAAAC
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Protein Sequence:

>Peptide sequence encoded by RG238816
 Blue=ORF Red=Cloning site Green=Tag(s)

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MVVATYTCQCGAETYQPIQSPTFMPLIMCPSQECQTNRS GGRLYLQTRGSRF IKFQEMKMQEHSQVVP
VGNIPRSITVLVEGENTRIAQP GDHVSVTGI FLPI LRTGFRQVVQGLLSETYLEAHRIVKMNKSEDDDES
GAGELTREELRQIAEEDFYEKLAASIAPEIYGHEDVKKALLLLL VGGVDQSPRGMKIRGNINICLMGDP
GVAKSQLLSYIDRLAPRSQYTTGRGSSGVL TAAVLRDSVSGEL TLEGGALVLADQGVCCIDEFDKMAE
ADRTAIHEVMEQQTISI AKAGILTTLNARCSILAAANPAYGRYNPRRSLEQNIQLPAALLSRFDLLWLI
QDRPDRDNDLRLAQHITYVHQSRQPPSQFEPLDMKLMRRYIAMCREKQPMVPESLADYITAAYVEMRR
EAWASKDATYTSARTLLAILRLSTALARLRMVDVVEKEDVNEAIRL MEMSKDSL LGDKGQTARTQRPAD
VIFATVRELVS GGRSVRFSEAEQRCVSRGFTPAQFQAALDEYEELNVWQVNASRTRITFV
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MGYGFYHFTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPEP
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLSLRDGGYYSSVVD SHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
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Restriction Sites:

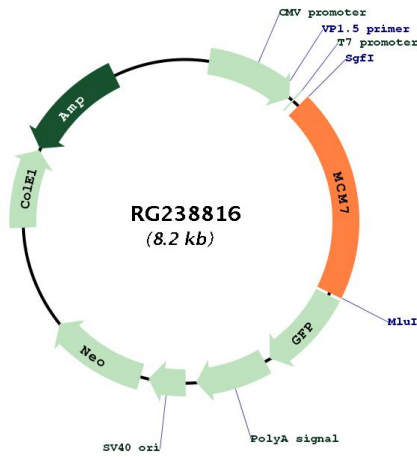
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN:	NM_001278595
ORF Size:	1629 bp
OTI Disclaimer:	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
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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).
RefSeq:	NM_001278595.2
RefSeq Size:	3105 bp
RefSeq ORF:	1632 bp
Locus ID:	4176
UniProt ID:	P33993
Cytogenetics:	7q22.1
Protein Families:	Transcription Factors
Protein Pathways:	Cell cycle, DNA replication
MW:	61.1 kDa
Gene Summary:	The protein encoded by this gene is one of the highly conserved mini-chromosome maintenance proteins (MCM) that are essential for the initiation of eukaryotic genome replication. The hexameric protein complex formed by the 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. The MCM complex consisting of this protein and MCM2, 4 and 6 proteins possesses DNA helicase activity, and may act as a DNA unwinding enzyme. Cyclin D1-dependent kinase, CDK4, is found to associate with this protein, and may regulate the binding of this protein with the tumorsuppressor protein RB1/RB. Alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Jul 2008]