OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RG215642

MCM10 (NM_182751) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MCM10 (NM_182751) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MCM10
Synonyms:	CNA43; DNA43; PRO2249
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

ORF Nucleotide Sequence:

>RG215642 representing NM_182751
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGATGAGGAGGAAGACAATCTGTCTCTGCTGACCGCACTGCTGGAAGAAAATGAGTCAGCCTTGGATT
GTAATTCAGAAGAAAATAACTTCTTGACGCGGGAAAATGGCGAGCCCGACGCATTTGATGAGCTCTTTGA
TGCCGACGGCGACGGTGAATCTTATACAGAAGAGGCTGATGATGGAGAAACAGGAGAGACAAGAGACGAA
AAGGAAAATCTGGCCACTCTCTTTGGAGATATGGAGGACTTAACAGATGAAGAAGAAGTTCCCGCATCAC
AGTCAACTGAAAATAGGGTCCTCCCTGCTCCTGCCCCCAGGCGAGAGAAAACGAATGAAGAGTTGCAAGA
GGAATTAAGGAATTTGCAAGAGCAAATGAAGGCCTTACAAGAGCAGCTAAAAGTAACAACAATTAAACAG
ACAGCAAGCCCAGCCCGTCTGCAAAAATCCCCT:::GAGAAGTCTCCCCGGCCACCTCTTAAGGAGAGGA
GAGTTCAGAGAATTCAGGAGTCAACATGCTTTTCTGCGGAGCTTGATGTCCCTGCGCTACCAAGAACCAA
GAGGGTGGCTCGAACACCAAAGGCTTCACCTCCAGATCCCAAAAGCTCATCTTCAAGGATGACAAGTGCA
CCCTCCCAACCCCTACAGACGATTTCTCGGAACAAACCTAGTGGGATAACTAGAGGTCAAATTGTGGGGA
CCCCAGGAAGTTCTGGGGAAACGACTCAACCCATCTGTGTGGAAGCCTTCTCTGGTCTGCGGCTCAGGCG
GCCTCGAGTATCCTCCACAGAAATGAACAAGAAAATGACCGGCCGAAAACTGATCAGACTGTCTCAGATC
AAGGAAAAGATGGCCAGAGAGAAGCTGGAAGAAATAGATTGGGTGACATTTGGGGTTATATTGAAGAAGG
TTACGCCACAGAGTGTGAATAGTGGAAAAACCTTCAGCATATGGAAACTGAATGATCTTCGTGACCTGAC
ACAATGTGTGTCCTTGTTCTTATTTGGAGAAGTTCACAAAGCGCTCTGGAAGACGGAGCAGGGGACTGTC
GTAGGGATCCTCAATGCCAACCCCATGAAGCCCAAGGATGGTTCAGAGGAGGTGTGTTTATCTATCGATC
ATCCTCAGAAGGTCTTAATTATGGGTGAAGCTCTTGACCTGGGAACCTGTAAAGCCAAGAAGAAGAATGG
AGAGCCGTGCACGCAGACTGTGAATTTGCGTGACTGTGAGTACTGTCAGTACCATGTCCAGGCTCAGTAC
AAGAAGCTCAGCGCAAAGCGTGCGGATCTGCAGTCCACCTTCTCTGGAGGACGAATTCCAAAGAAGTTTG
CCCGCAGAGGCACCAGCCTCAAAGAACGGCTGTGCCAAGATGGCTTTTACTACGGAGGGGTTTCTTCTGC
CTCGTATGCAGCTTCAATTGCAGCAGCTGTGGCTCCTAAGAAGAAGATTCAAACCACTCTGAGTAATCTG
GTTGTTAAGGGCACAAACTTGATCATCCAGGAAACACGGCAAAAACTCGGAATACCCCAGAAGAGCCTGT
CTTGCTCTGAGGAGTTCAAGGAACTGATGGACCTGCCGACGTGTGGAGCCAGGAACTTAAAACAACATTT
AGCCAAAGCCACAGCTTCAGGGATTATGGGGAGCCCAAAACCAGCCATCAAGTCCATCTCGGCCTCAGCA
CTCTTGAAGCAACAGAAGCAGCGGATGTTGGAGATGAGGAGAAGGAAATCAGAAGAAATACAGAAGCGAT
TTCTGCAGAGCTCAAGTGAAGTTGAGAGCCCAGCTGTGCCATCTTCATCAAGACAGCCCCCTGCTCAGCC
TCCACGGACAGGATCCGAGTTCCCCAGGCTGGAGGGAGCCCCGGCCACAATGACGCCCAAGCTGGGGCGA
GGTGTCTTGGAAGGAGATGATGTTCTCTTTTATGATGAGTCACCACCACCAAGACCAAAACTGAGTGCTT
TAGCAGAAGCCAAAAAGTTAGCTGCTATCACCAAATTAAGGGCAAAAGGCCAGGTTCTTACAAAAACAAA
CCCAAACAGCATTAAGAAGAAACAAAAGGACCCTCAGGACATCCTGGAGGTGAAGGAACGTGTAGAAAAA
AACACCATGTTTTCTTCTCAAGCTGAGGATGAATTGGAGCCTGCCAGGAAAAAAAGGAGAGAACAACTTG
CCTATCTGGAATCTGAGGAATTTCAGAAAATCCTAAAAGCAAAATCAAAACACACAGGCATCCTGAAAGA
GGCCGAGGCTGAGATGCAGGAGCGCTACTTTGAGCCACTGGTGAAAAAAGAACAAATGGAAGAAAAGATG
AGAAACATCAGAGAAGTGAAGTGCCGTGTCGTGACATGCAAGACGTGCGCCTATACCCACTTCAAGCTGC
TGGAGACCTGCGTCAGTGAGCAGCATGAATACCACTGGCATGATGGTGTGAAGAGGTTTTTCAAATGTCC
CTGTGGAAACAGAAGCATCTCCTTGGACAGACTCCCGAACAAGCACTGCAGTAACTGTGGCCTCTACAAA
TGGGAACGGGACGGAATGCTAAAGGAAAAGACTGGTCCAAAGATAGGAGGAGAAACTCTGTTACCAAGAG
GAGAAGAACATGCTAAATTTCTGAACAGCCTTAAA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

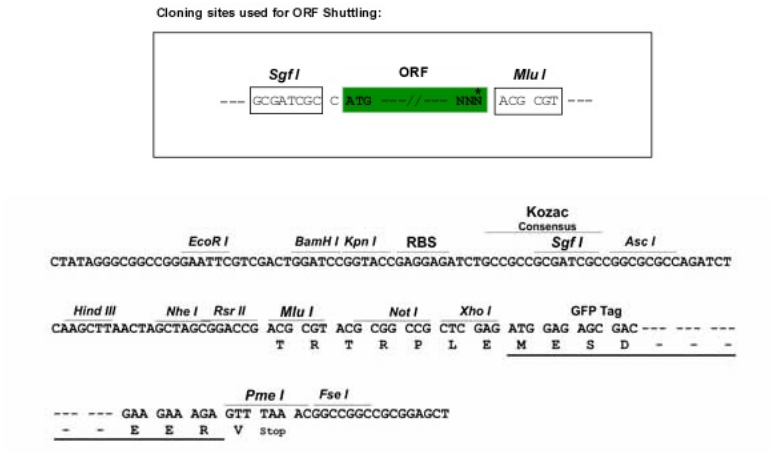
>RG215642 representing NM_182751
Red=Cloning site Green=Tags(s)

MDEEEDNLSLLTALLEENESALDCNSEENNFLTRENGEPDAFDELFDADGDGESYTEEADDGETGETRDE
KENLATLFGDMEDLTDEEEVPASQSTENRVLPAPAPRREKTNEELQEELRNLQEQMKALQEQLKVTTIKQ
TASPARLQKSPXEKSPRPPLKERRVQRIQESTCFSAELDVPALPRTKRVARTPKASPPDPKSSSSRMTSA
PSQPLQTISRNKPSGITRGQIVGTPGSSGETTQPICVEAFSGLRLRRPRVSSTEMNKKMTGRKLIRLSQI
KEKMAREKLEEIDWVTFGVILKKVTPQSVNSGKTFSIWKLNDLRDLTQCVSLFLFGEVHKALWKTEQGTV
VGILNANPMKPKDGSEEVCLSIDHPQKVLIMGEALDLGTCKAKKKNGEPCTQTVNLRDCEYCQYHVQAQY
KKLSAKRADLQSTFSGGRIPKKFARRGTSLKERLCQDGFYYGGVSSASYAASIAAAVAPKKKIQTTLSNL
VVKGTNLIIQETRQKLGIPQKSLSCSEEFKELMDLPTCGARNLKQHLAKATASGIMGSPKPAIKSISASA
LLKQQKQRMLEMRRRKSEEIQKRFLQSSSEVESPAVPSSSRQPPAQPPRTGSEFPRLEGAPATMTPKLGR
GVLEGDDVLFYDESPPPRPKLSALAEAKKLAAITKLRAKGQVLTKTNPNSIKKKQKDPQDILEVKERVEK
NTMFSSQAEDELEPARKKRREQLAYLESEEFQKILKAKSKHTGILKEAEAEMQERYFEPLVKKEQMEEKM
RNIREVKCRVVTCKTCAYTHFKLLETCVSEQHEYHWHDGVKRFFKCPCGNRSISLDRLPNKHCSNCGLYK
WERDGMLKEKTGPKIGGETLLPRGEEHAKFLNSLK

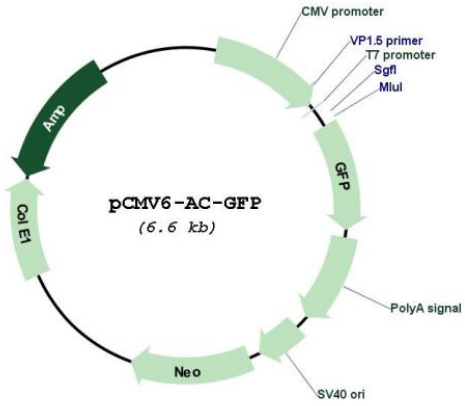
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_182751
ORF Size:	2625 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
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).
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_182751.1, NP_877428.1

RefSeq Size:	4535 bp
RefSeq ORF:	2628 bp
Locus ID:	55388
UniProt ID:	Q7L590
Cytogenetics:	10p13
Protein Families:	Stem cell - Pluripotency
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 it may be involved in the formation of replication forks and in the recruitment of other DNA replication related proteins. This protein can interact with MCM2 and MCM6, as well as with the origin recognition protein ORC2. It is regulated by proteolysis and phosphorylation in a cell cycle-dependent manner. Studies of a similar protein in Xenopus suggest that the chromatin binding of this protein at the onset of DNA replication is after pre-RC assembly and before origin unwinding. Alternatively spliced transcript variants encoding distinct isoforms have been identified. [provided by RefSeq, Jul 2008]