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Product datasheet for MR210993

Mcm4 (NM_008565) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mcm4 (NM_008565) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mcm4
Synonyms:	19G; AI325074; AU045576; Cdc21; mcdc21; Mcmd4; mKIAA4003
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

ORF Nucleotide Sequence:

>MR210993 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCGTCCCCGGCATCCACCCCGAGCCGCCGCAGCAGCCGACGCGGACGAGTCACCCCAACCCAGTCCC
TTCGAAGTGAGGAAAGCAGGTCGTCACCCAATCGGAGACGTAGAGGCGAAGATTCTTCCACCGGAGAGCT
ACTGCCAATGCCCACCTCACCAGGAGCCGACCTGCAGAGCCCACCTGCACAGAATGCCTTGTTTTCCAGC
CCTCCTCAGATGCATTCTTTAGCTATTCCTTTGGACTTTGATGTTAGTTCACCATTGACATATGGCACTC
CCAGCTCGCGAGTGGAAGGAACCCCAAGAAGTGGGGTGAGAGGCACACCTGTAAGGCAGAGGCCAGATCT
GGGCTCAGCACGAAAGGGTTTGCAGGTGGATCTGCAGTCTGATGGCGCAGCAGCAGAAGACATCGTACCA
AGTGAACAGTCTCTAGGCCAAAAGCTTGTGATTTGGGGAACAGATGTGAATGTGGCAACATGTAAAGAGA
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TCAAGTCAGACCTTTTAATGCGTTGAAGACAAAGAGTATGAGAAACTTGAATCCAGAAGACATTGATCAG
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GCAAGTCCCAGCTGCTACAGTATGTGTACAACCTGGTCCCCAGAGGCCAGTACACGTCTGGAAAAGGCTC
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ATGAGGCATATGACCGGCGTCTAGCTCATCACCTGGTTTCATTGTACTACCAAAGTGAGGAGCAAGTGGA
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AAAGTACCAACAGCTGTTTGAGGATATTCGGGGACAGTCTGACACAGCAATTACCAAGGACATGTTTGAA
GAAGCCCTGCGAGCTTTGGCTGATGATGATTTCCTAACAGTGACTGGGAAGACTGTCCGCCTGCTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR210993 protein sequence
Red=Cloning site Green=Tags(s)

MSSPASTPSRRSSRRGRVTPTQSLRSEESRSSPNRRRRGEDSSTGELLPMPTSPGADLQSPPAQNALFSS
PPQMHSLAIPLDFDVSSPLTYGTPSSRVEGTPRSGVRGTPVRQRPDLGSARKGLQVDLQSDGAAAEDIVP
SEQSLGQKLVIWGTDVNVATCKENFQRFLQCFTDPLAKEEENVGIDITQPLYMQQLGEINITGEPFLNVN
CEHIKSFSKNLYRQLISYPQEVIPTFDMAVNEIFFDRYPDSILEHQIQVRPFNALKTKSMRNLNPEDIDQ
LITISGMVIRTSQLIPEMQEAFFQCQVSAHTTRVEIDRGRIAEPCSCVHCHTTHSMALIHNRSFFSDKQM
IKLQESPEDMPAGQTPHTIVLFAHNDLVDKVQPGDRVNVTGIYRAVPIRVNPRVSNVKSVYKTHIDVIHY
RKTDAKRLHGLDEEAEQKLFSEKRVKLLKELSRKPDIYERLASALAPSIYEHEDIKKGILLQLFGGTRKD
FSHTGRGKFRAEINILLCGDPGTSKSQLLQYVYNLVPRGQYTSGKGSSAVGLTAYVMKDPETRQLVLQTG
ALVLSDNGICCIDEFDKMNESTRSVLHEVMEQQTLSIAKAGIICQLNARTSVLAAANPIESQWNPKKTTI
ENIQLPHTLLSRFDLIFLMLDPQDEAYDRRLAHHLVSLYYQSEEQVEEEFLDMAVLKDYIAYAHSTIMPR
LSEEASQALIEAYVNMRKIGSSRGMVSAYPRQLESLIRLAEAHAKVRFSNKVEAIDVEEAKRLHREALKQ
SATDPRTGIVDISILTTGMSATSRKRKEELAEALRKLILSKGKTPALKYQQLFEDIRGQSDTAITKDMFE
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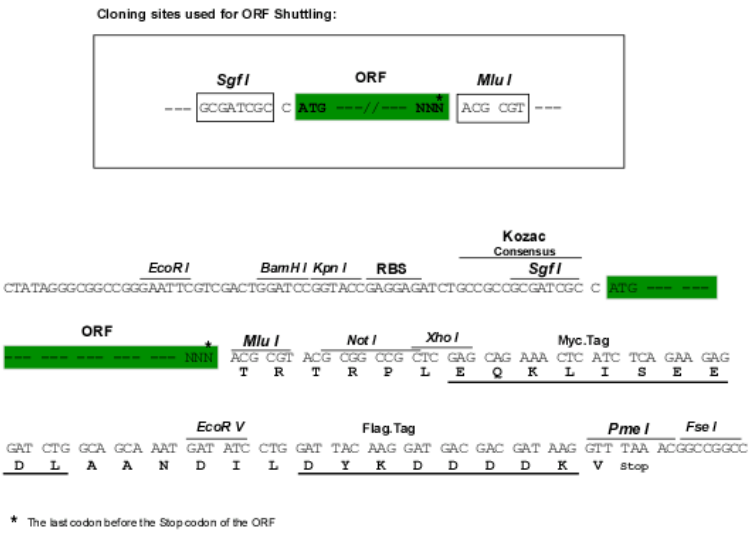
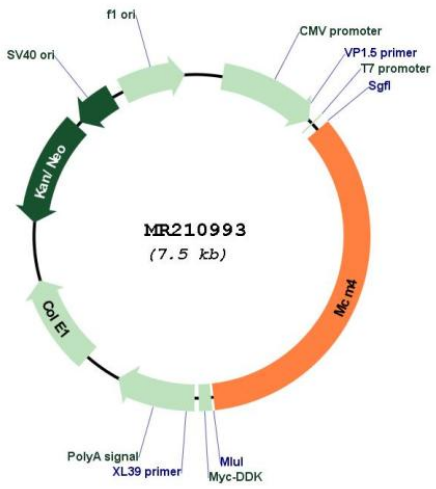
Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_008565
ORF Size:	2589 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).
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_008565.2, NP_032591.2
RefSeq Size:	3589 bp
RefSeq ORF:	2589 bp
Locus ID:	17217
UniProt ID:	P49717
Cytogenetics:	16 10.09 cM
MW:	96.7 kDa
Gene Summary:	Acts as component of the MCM2-7 complex (MCM complex) which is the putative replicative helicase essential for 'once per cell cycle' DNA replication initiation and elongation in eukaryotic cells. The active ATPase sites in the MCM2-7 ring are formed through the interaction surfaces of two neighboring subunits such that a critical structure of a conserved arginine finger motif is provided in trans relative to the ATP-binding site of the Walker A box of the adjacent subunit. The six ATPase active sites, however, are likely to contribute differentially to the complex helicase activity.[UniProtKB/Swiss-Prot Function]