

Product datasheet for **MR210160**

Mre11a (NM_018736) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mre11a (NM_018736) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mre11a
Synonyms:	Mre11; Mre11b
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>MR210160 representing NM_018736
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAGCCCCACAGATCCACTTGACGATGAAGACACATTTAAAATCCTGGTTGCCACTGATATTCATCTTG
GATTTATGGAGAAAGATGCAGTTAGAGGAAATGATACATTTGTGACATTTGATGAAATCTTAAGACTTGC
CCTGGAATAAGAGTGGATTTTATTTTGTAGGTGGTGATCTTTTCCATGAAAACAGCCCTCGAGGAAA
ACCCTGCACAGCTGCTTGGAGCTGCTTAGGAAGTACTGTATGGGTGACCGCCCTGTGCAGTTGAGGTCA
TCAGTGATCAGTCAGTCAACTTTGGTTTTAGTAAGTTTCCATGGGTGAACTACCAGGATGGCAATCTCAA
CATTTCCATTCCAGTATTTAGTATCCACGGCAACCATGATGATCCACGGGGCAGATGCCCTCTGTGCC
CTGGATGTTTTAAGCTGTGCTGGTTTTGTGAATCACTTTGGACGGTCAATGTCGGTGGAGAAGGTTGACA
TTAGTCCGGTTCTGCTGCAGAAAGGAAGCACAAAACCTCGCTCTGTACGGCTTAGGCTCCATTCCAGATGA
AAGGCTCTATCGGATGTTTTGTGAATAAAAAAGTAACAATGTTGAGACAAAGGAAGATGAGAATCATGG
TTTAACTTATTTGTGATTCATCAGAACAGGAGTAAAGCATGGAAACACCAACTTCATTCCAGAGCAGTTTT
TGGATGACTTCATCGACCTCGTTATCTGGGGCCATGAACATGAGTGTAATAATGGCCCAATCAAAAATGA
GCAGCAGCTCTTCTATGTGTCTCAGCCCGAAGCTCAGTGGTGACGTCCCTTTCCCTGGAGAAGCTGTG
AAGAAACATGTAGGCTTGTCTGCGCATTAAAGGGAGAAAGATGAACATGCAGAAGCTGCCTCTCCGCCCG
TGCGGGCGTTCTTCATAGAAGACGTGGTTCTGGCTAACCAACCAACCTGTTCAACCCTGACAATCTCAA
GGTGACCCAGGCCATCCAGAGCTTCTGTCTGGAGAAGATTGAAGAAATGCTTGACAGTGTGAGCGGGAA
CGACTGGGAATCCTCAGCAGCCGGGGAAGCCTTTATCCGACTACGGGTGGACTATAGTGGAGGCTTTG
AACCTTTCAACGTTCTTCGTTTTAGCCAGAAGTTTGGATCGAGTCGTAACCCAAAAGATGTCATCCA
CTTTTTCAGGCACAGGGAACAAAAGGGAAAAACAGGAGAAGAGATCAACTTTGGGATGCTCATCACAAAA
CCTGCTTCAGAAGGAGCAACGCTTAGAGTGAAGACCTCGTAAAGCAGTATTTCCAAACTGCAGAGAAGA
ATGTTTCAGCTCTCGCTGCTGACAGAAAGAGGGATGGGCGAAGCAGTTCAAGAGTTTGTGGACAAGGAAGA
GAAAGATGCCATCGAGGAATTAGTGAAGTACCAGCTGGAGAAAACACAGCGGTTTCTTAAGGAGCGCCAT
ATTGATGCTCTGGAAGACAAGATTGATGAGGAGGTCGACGTTTCCGAGAAAGCAGACAGAGAAATACCA
ACGAAGAAGATGATGAAGTTCGAGAGGCCATGAGCAGAGCCCGGGCCCTCAGATCACAGTCAGAGACCTC
CACCTCAGCTTTAGTGCTGAGGACCTGAGCTTTGATACATCGGAGCAGACAGCAATGACTCTGATGAC
AGCCTGTCAGCAGTGCCGAGCAGAGGCCGAGGCCGAGGCCGAGGGCGAAGAGGAGCCAGAGGGCAGAGCT
CGGCACCTAGAGGAGGCTCTCAGAGAGGCCGAGACACTGGGCTGGAGATCACTACTCGAGGCAGGAGCTC
AAAGGCCACCTCATCAACATCTAGAAAATGTCCATTATAGACGCTTTCAGATCTACCCGACAACAGCCT
TCTAGAAATGTAGCCCTAAGAATTACTCAGAGACCATTGAGGTGGATGACTCTGACGAAGATGACATTT
TTCTACCAATCCAGGGCTGATCAAAGGTGGTCGGGCACAACATCTAGCAAACGGATGTCCAGAGCCA
GACAGCCAAAGGGGTAGACTTTGAATCAGATGAGGATGATGACGATGACCCTTTCATGAGCAGTAGTTGC
CCAAGAAGAAACCGAAGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR210160 representing NM_018736
Red=Cloning site Green=Tags(s)

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MSPTDPLDDEDTFKILVATDIHLGFMEKDAVRGNDTFVTFDEILRLALENEVDFILLGGDLFHENKPSRK
TLHSCELLLRKYCMGDRPVQFEVISEDQSVNFGFSKFPWVNYQDGNLNISIPVFSIHGNHDDPTGADALCA
LDVLSACAGFVNHFGSRMSVEKVDISPVLLQKGSTKLALYGLGSIPDERLYRMFVNKKVTMLRPKEDENSW
FNLFVIHQNRSKHGNTNFIPFQFLDDFIDLVIWGHEHECKIGPIKNEQQLFYVSQPGSSVVTSLSPGEAV
KKHVGLLRKIKGRKMNMQKLPRLRTVRRFFIEDVLANHPNLFNPDNPKVTQAIQSFCEKIEEMLDSAERE
RLGNPQQPGKPLIRLRVDYSGGFEPFNVLRFSSQKFVDRVANPKDVIHFRHREQKGTGEEINFGMLITK
PASEGATLRVEDLVKQYFQTAEKNVQLSLLTERGMGEAVQEFVDKEEKDAIEELVKYQLEKTQRFLKERH
IDALEDKIDEEVRRFRESRQRNTNEEDEVRREAMSRARALRSQSETSTSAFSAEDLSFDTSEQTANDSDD
SLSAVPSRGRGRGRGARGQSSAPRGGSQGRDGTGLEITTRGRSSKATSTSRNMSIIDAFRSTRQQP
SRNVAPKNYSETIEVDDSDDEDDIFPTNSRADQRWSGTTSSKRMSQSQTAKGVDFEDEDDEDDPFMSSSC
PRRNR
    
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9032_c12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_018736

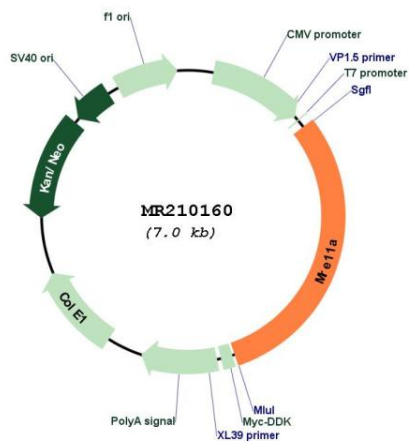
ORF Size: 2118 bp

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:	<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_018736.3
RefSeq Size:	3034 bp
RefSeq ORF:	2121 bp
Locus ID:	17535
UniProt ID:	Q61216
Cytogenetics:	9 A2
MW:	80.7 kDa
Gene Summary:	<p>Component of the MRN complex, which plays a central role in double-strand break (DSB) repair, DNA recombination, maintenance of telomere integrity and meiosis. The complex possesses single-strand endonuclease activity and double-strand-specific 3'-5' exonuclease activity, which are provided by MRE11. RAD50 may be required to bind DNA ends and hold them in close proximity. This could facilitate searches for short or long regions of sequence homology in the recombining DNA templates, and may also stimulate the activity of DNA ligases and/or restrict the nuclease activity of MRE11 to prevent nucleolytic degradation past a given point. The complex may also be required for DNA damage signaling via activation of the ATM kinase. In telomeres the MRN complex may modulate t-loop formation.</p> <p>[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MR210160