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Product datasheet for MG210160

Mre11a (NM_018736) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mre11a (NM_018736) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mre11a
Synonyms:	Mre11; Mre11b
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG210160 representing NM_018736
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGCCCCACAGATCCACTTGACGATGAAGACACATTTAAAATCCTGGTTGCCACTGATATTCATCTTG
GATTTATGGAGAAAGATGCAGTTAGAGGAAATGATACATTTGTGACATTTGATGAAATCTTAAGACTTGC
CCTGGAAAATGAAGTGGATTTTATTTTGTTAGGTGGTGATCTTTTCCATGAAAACAAGCCCTCGAGGAAA
ACCCTGCACAGCTGCTTGGAGCTGCTTAGGAAGTACTGTATGGGTGACCGCCCTGTGCAGTTTGAGGTCA
TCAGTGATCAGTCAGTCAACTTTGGTTTTAGTAAGTTTCCATGGGTGAACTACCAGGATGGCAATCTCAA
CATTTCCATTCCAGTATTTAGTATCCACGGCAACCATGATGATCCCACGGGGGCAGATGCCCTCTGTGCC
CTGGATGTTTTAAGCTGTGCTGGGTTTGTGAATCACTTTGGACGGTCAATGTCGGTGGAGAAGGTTGACA
TTAGTCCGGTTCTGCTGCAGAAAGGAAGCACAAAACTCGCTCTGTACGGCTTAGGCTCCATTCCAGATGA
AAGGCTCTATCGGATGTTTGTGAATAAAAAAGTAACAATGTTGAGACCAAAGGAAGATGAGAACTCATGG
TTTAACTTATTTGTGATTCATCAGAACAGGAGTAAGCATGGAAACACCAACTTCATTCCAGAGCAGTTTT
TGGATGACTTCATCGACCTCGTTATCTGGGGCCATGAACATGAGTGTAAAATTGGCCCAATCAAAAATGA
GCAGCAGCTCTTCTATGTGTCTCAGCCCGGAAGCTCAGTGGTGACGTCCCTTTCCCCTGGAGAAGCTGTG
AAGAAACATGTAGGCTTGCTGCGCATTAAAGGGAGAAAGATGAACATGCAGAAGCTGCCTCTCCGCACCG
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GGTGACCCAGGCCATCCAGAGCTTCTGTCTGGAGAAGATTGAAGAAATGCTTGACAGTGCTGAGCGGGAA
CGACTGGGGAATCCTCAGCAGCCGGGGAAGCCTCTTATCCGACTACGGGTGGACTATAGTGGAGGCTTTG
AACCTTTCAACGTTCTTCGTTTTAGCCAGAAGTTTGTGGATCGAGTCGCTAACCCAAAAGATGTCATCCA
CTTTTTCAGGCACAGGGAACAAAAGGGAAAAACAGGAGAAGAGATCAACTTTGGGATGCTCATCACAAAA
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ATGTTCAGCTCTCGCTGCTGACAGAAAGAGGGATGGGCGAAGCAGTTCAAGAGTTTGTGGACAAGGAAGA
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ACGAAGAAGATGATGAAGTTCGAGAGGCCATGAGCAGAGCCCGGGCCCTCAGATCACAGTCAGAGACCTC
CACCTCAGCCTTTAGTGCTGAGGACCTGAGCTTTGATACATCGGAGCAGACAGCAAATGACTCTGATGAC
AGCCTGTCAGCAGTGCCGAGCAGAGGCCGAGGCCGAGGCCGAGGGCGAAGAGGAGCCAGAGGGCAGAGCT
CGGCACCTAGAGGAGGCTCTCAGAGAGGCCGAGACACTGGGCTGGAGATCACTACTCGAGGCAGGAGCTC
AAAGGCCACCTCATCAACATCTAGAAACATGTCCATTATAGACGCTTTCAGATCTACCCGACAACAGCCT
TCTAGAAATGTAGCCCCTAAGAATTACTCAGAGACCATTGAGGTGGATGACTCTGACGAAGATGACATTT
TTCCTACCAATTCCAGGGCTGATCAAAGGTGGTCGGGCACAACATCTAGCAAACGGATGTCCCAGAGCCA
GACAGCCAAAGGGGTAGACTTTGAATCAGATGAGGATGATGACGATGACCCTTTCATGAGCAGTAGTTGC
CCAAGAAGAAACCGAAGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

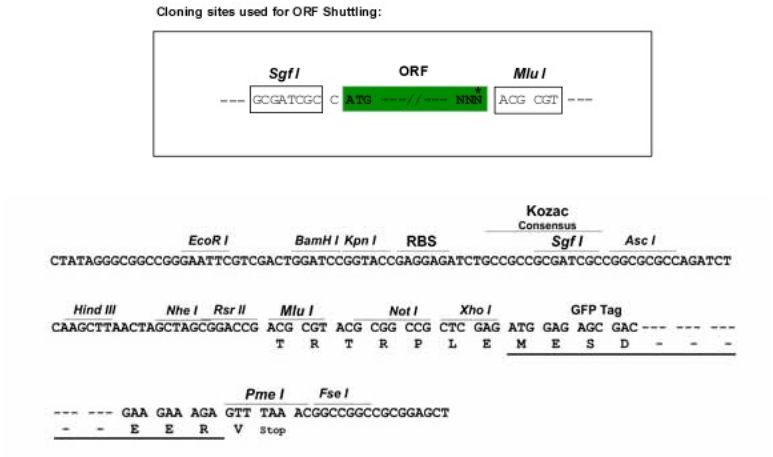
>MG210160 representing NM_018736
Red=Cloning site Green=Tags(s)

MSPTDPLDDEDTFKILVATDIHLGFMEKDAVRGNDTFVTFDEILRLALENEVDFILLGGDLFHENKPSRK
TLHSCLELLRKYCMGDRPVQFEVISDQSVNFGFSKFPWVNYQDGNLNISIPVFSIHGNHDDPTGADALCA
LDVLSCAGFVNHFGRSMSVEKVDISPVLLQKGSTKLALYGLGSIPDERLYRMFVNKKVTMLRPKEDENSW
FNLFVIHQNRSKHGNTNFIPEQFLDDFIDLVIWGHEHECKIGPIKNEQQLFYVSQPGSSVVTSLSPGEAV
KKHVGLLRIKGRKMNMQKLPLRTVRRFFIEDVVLANHPNLFNPDNPKVTQAIQSFCLEKIEEMLDSAERE
RLGNPQQPGKPLIRLRVDYSGGFEPFNVLRFSQKFVDRVANPKDVIHFFRHREQKGKTGEEINFGMLITK
PASEGATLRVEDLVKQYFQTAEKNVQLSLLTERGMGEAVQEFVDKEEKDAIEELVKYQLEKTQRFLKERH
IDALEDKIDEEVRRFRESRQRNTNEEDDEVREAMSRARALRSQSETSTSAFSAEDLSFDTSEQTANDSDD
SLSAVPSRGRGRGRGRRGARGQSSAPRGGSQRGRDTGLEITTRGRSSKATSSTSRNMSIIDAFRSTRQQP
SRNVAPKNYSETIEVDDSDEDDIFPTNSRADQRWSGTTSSKRMSQSQTAKGVDFESDEDDDDDPFMSSSC
PRRNRR

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



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:
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

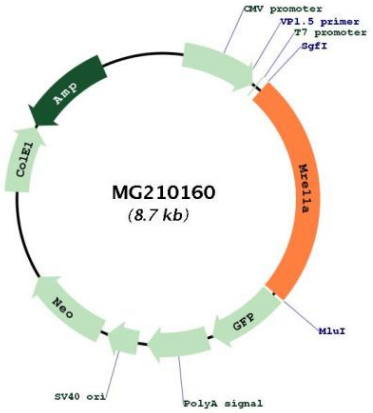
Locus ID: 17535

UniProt ID: Q61216

Cytogenetics: 9 A2

Gene Summary: 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. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG210160