

Product datasheet for **RG209414**

MRE11 (NM_005591) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MRE11 (NM_005591) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MRE11
Synonyms:	ATLD; HNGS1; MRE11A; MRE11B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG209414 representing NM_005591
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGTACTGCAGATGCACCTTGATGATGAAAACACATTTAAAATATTAGTTGCAACAGATATTCATCTTG
 GATTTATGGAGAAAGATGCAGTCAGAGGAAATGATACGTTTGAACACTCGATGAAATTTAAGACTTGC
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 TCAGTGATCAGTCAGTCAACTTTGGTTTTAGTAAGTTTCCATGGGTGAACATCAAGATGGCAACCTCAA
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 GAGTCAAGTATCGAAAGGGTTGATTTTGAATCAAGTGAGGATGATGATGATGATCTTTTATGAACACT
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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

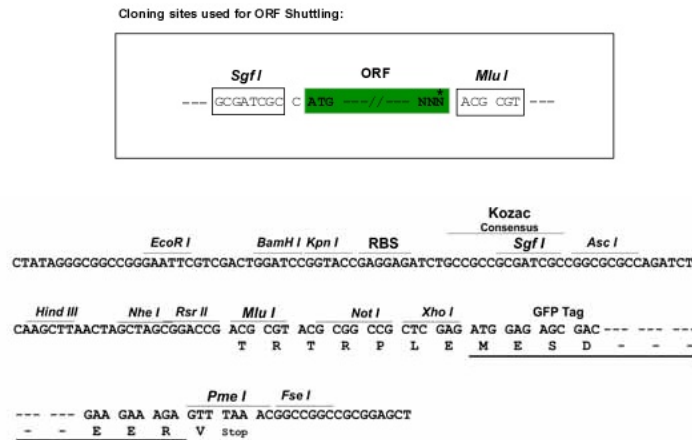
Protein Sequence: >RG209414 representing NM_005591
 Red=Cloning site Green=Tags(s)

MSTADALDDENTFKILVATDIHLGFMEKDAVRGNDTFVTLDEILRLAQENEVDFILLGGDLFHENKPSRK
 TLHTCLELLRKYCMGDRPVQFEILSDQSVNFGFSKFPWVNYQDGNLNISIPVFSIHGNHDDPTGADALCA
 LDILSCAGFVNHFGSRMSVEKIDISPVLLQKGSTKIALYGLGSIPDERLYRMFVNKKVTMLRPKEDENSW
 FNLFVIHQNRSKHGSTNFIPEQFLDDFIDLVIWGHEHECKIAPTKNEQQLFYISQPGSSVVTSLSPGEAV
 KKHVGLLRKGRKMNMHKIPLHTVRQFFMEDIVLANHPDIFNPDNPKVTQAIQSFCEKIEEMLENAERE
 RLGNHQPEKPLVRLRVYDSSGGFEPFVLRFSQKFDVDRVANPKDIIHFHREKQEKTEGEEINFGKLITK
 PSEGTTLRVEDLVKQYFQTAENKVLQSLLLTERGMGEAVQEFVDKEEKDAIEELVKYQLEKTQRFLKERHI
 DALEDKIDEEVRRFRETRQKNTNEEDDEVREAMTRARALRSQSEESASAFSADDLMSIDLAEQMANSDD
 SISAATNKGRGRGRRRGGRGQNSASRGGGSRGRADTGLESTSTRSRNSKTAVSASRNMSIIDAFKSTRQQ
 PSRNVTTKNYSEVIEVDESDEEDIFPTTSKTDQRWSSTSSSKIMSQSQVSKGVDFESSEDDDDDPFMMNT
 SSLRRNRR

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005591

ORF Size: 2124 bp

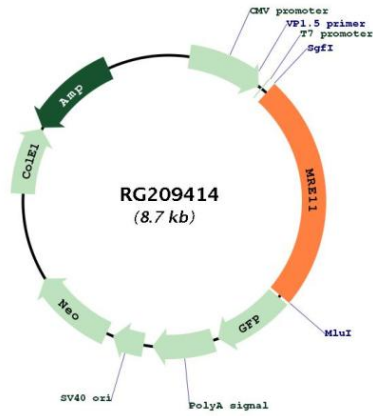
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_005591.4
RefSeq Size:	5141 bp
RefSeq ORF:	2127 bp
Locus ID:	4361
UniProt ID:	P49959
Cytogenetics:	11q21
Domains:	Metallophos, Mre11_DNA_bind
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	Homologous recombination, Non-homologous end-joining
Gene Summary:	<p>This gene encodes a nuclear protein involved in homologous recombination, telomere length maintenance, and DNA double-strand break repair. By itself, the protein has 3' to 5' exonuclease activity and endonuclease activity. The protein forms a complex with the RAD50 homolog; this complex is required for nonhomologous joining of DNA ends and possesses increased single-stranded DNA endonuclease and 3' to 5' exonuclease activities. In conjunction with a DNA ligase, this protein promotes the joining of noncomplementary ends in vitro using short homologies near the ends of the DNA fragments. This gene has a pseudogene on chromosome 3. Alternative splicing of this gene results in two transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]</p>

Product images:



Circular map for RG209414