

Product datasheet for **SC116673**

MRE11 (NM_005591) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MRE11 (NM_005591) Human Untagged Clone
Tag:	Tag Free
Symbol:	MRE11
Synonyms:	ATLD; HNGS1; MRE11A; MRE11B
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

Fully Sequenced ORF: >OriGene ORF within SC116673 sequence for NM_005591 edited (data generated by NextGen Sequencing)

```
ATGAGTACTGCAGATGCACTTGATGATGAAAAACATTAAAATATTAGTTGCAACAGAT
ATTCATCTTGGATTTATGGAGAAAAGATGCAGTCAGAGGAAATGATACGTTTGTAACTC
GATGAAATTTTAAAGACTTGCCAGGAAAATGAAGTGGATTTTATTTTGTAGGTGGTGT
CTTTTTATGAAAATAAGCCCTCAAGGAAAACATTACATACCTGCCTCGAGTTATTAAGA
AAATATTGTATGGGTGATCGGCCTGCCAGTTTAAAATTCTCAGTGATCAGTCAGTCAAC
TTTGGTTTTAGTAAGTTTCCATGGGTGAACATCAAGATGGCAACCTCAACATTTCAATT
CCAGTGTTTAGTATTCATGGCAATCATGACGATCCACAGGGCAGATGCACTTTGTGCC
TTGGACATTTTAAAGTTGTGCTGGATTTGTAATCACTTTGGACGTTCAATGTCTGTGGAG
AAGATAGACATTAGTCCGGTTTTGCTTCAAAAAGGAAGCACAAAGATTGCGCTATATGGT
TTAGGATCCATTCCAGATGAAAGGCTCTATCGAATGTTTGTAATAAAAAGTAACAATG
TTGAGACCAAAGGAGATGAGAACTCTTGGTTAACTTATTTGTGATTTCAGAACAGG
AGTAAACATGGAAGTACTAATCTCATTCCAGAACAATTTTTGGATGACTTCATTGATCTT
GTTATCTGGGGCCATGAACATGAGTGATAAAATAGCTCCAACCAAAAATGAACAACAGCTG
TTTTATATCTCACAACTGGAAGCTCAGTGGTTACTTCTTTTCCCAGGAGAAGCTGTA
AAGAAACATGTTGGTTTGTGCTGCTATTAAAGGGAGGAAGATGAATATGCATAAAATTCCT
CTTCACACAGTGGCGAGTTTTTCATGGAGGATATTGTTCTAGCTAATCATCCAGACATT
TTTAAACCAGATAATCCTAAAGTAACCCAAGCCATACAAAGCTTCTGTTTGGAGAAGATT
GAAGAAATGCTTGAAAATGCTGAACGGGAACGCTGGGTAAATCTCACAGCCAGAGAAG
CCTCTTGTACGACTGCGAGTGGACTATAGTGGAGGTTTTGAACCTTTCAGTGTCTTCGC
TTTAGCCAGAAAATTTGTGGATCGGGTAGCTAATCCTAAAGACATTATCCATTTTTTCAGG
CATAGAGAACAAAAGGAAAAACAGGAGAAGAGATCAACTTTGGGAACTTATCACAAAAG
CCTTCAGAAGGAACAACCTTAAGGGTAGAAGATCTTGAAAACAGTACTTTCAAAACCGCA
GAGAAGAATGTGACGCTCTCACTGCTAACAGAAAGAGGGATGGGTGAAGCAGTACAAGAA
TTTTGTGGACAAGGAGGAGAAAAGATGCCATTGAGGAATTAGTGAATAACCAGTTGAAAAAA
ACACAGCGATTTCTTAAAGAACGTATATTGATGCCCTCGAAGACAAAATCGATGAGGAG
GTACGTCGTTTCAGAGAAACCAGACAAAAAATACTAATGAAGAAGATGATGAAGTCCGT
GAGGCTATGACCAGGGCCAGAGCACTCAGATCTCAGTCCAGAGGAGTCTGCTTCTGCCTT
AGTGTGATGACCTTATGAGTATAGATTTAGCAGAACAGATGGCTAATGACTCTGATGAT
AGCATCTCAGCAGCAACCAACAAAGGAAGAGGCCGAGGAAGAGGTCTGAAGAGGTGGAAGA
GGGCAGAATTCAGCATCGAGAGGAGGGTCTCAAAGAGGAAGAGCAGACACTGGTCTGGAG
ACTTCTACCCGTAGCAGGAACTCAAAGACTGCTGTGTCAGCATCTAGAAATATGTCTATT
ATAGATGCCTTTAAATCTACAAGACAGCAGCCTTCCCGAAATGTCACTACTAAGAATTAT
TCAGAGGTGATTGAGGTAGATGAATCAGATGTGGAAGAAGACATTTTTCTACCCTTCA
AAGACAGATCAAAGGTGGTCCAGCACATCACCCAGCAAAATCATGTCCAGAGTCAAGTA
TCGAAAGGGGTTGATTTTGAATCAAGTGAGGATGATGATGATGATGATGATGATGATGATG
AGTTCTTTAAGAAGAAAATAGAAGATAA
```

Clone variation with respect to NM_005591.3
2011 t=>c

5' Read Nucleotide Sequence:	>OriGene 5' read for NM_005591 unedited GCACGAGGGCGGGTTCTCAGAGGCAAGTTCAGACCGTGTGTTTTCTTTTCACGGATCCT GCCCTTTCTTCCCGAAAAGAAGACAGCCTTGGGTCGCGATTGTGGGGCTTCGAAGAGTCC AGCAGTGGGAATTTCTAGAATTTGGAATCGAGTGCATTTTCTGACATTTGAGTACAGTAC CCAGGGGTTCTTGAGAGAAGAACCTGGTCCCAGAGGAGCTTGACTGACCATAAAAAATGAGT ACTGCAGATGCACTTGATGATGAAAACACATTTAAAATATTAGTTGCAACAGATATTCAT CTTGGATTTATGGAGAAAAGATGCAGTCAGAGGAAATGATACGTTTGTAACTCGATGAA ATTTTAAGACTTGCCCGAGGAAAATGAAGTGGATTTATTTTGTAGGTGGTGATCTTTTT CATGAAAATAAGCCCTCAGGAAAACATTACATACCTGCCTCGAGTTATTAAGAAAATATT GTATGGGTGATCGGCCTGTCCAGTTTGAATTCTCAGTGATCAGTCAGTCAACTTTGGTT TTAGTAAGTTTCCATGGGTGAACATCAAGATGGCAACCTCAACA
3' Read Nucleotide Sequence:	>OriGene 3' read for NM_005591 unedited GAACGCGCACGCAATCTATAATCGAGTTTTTTTTTTTTTTTTTTTCTTATGAAAAGAAAG TAAAAGGTAGCTTTATTTAATCTTTACTCAAGAGTGATATTGAAACAAAGCTCTTACTA CAACAACCCAGGTTAAAAAACAAGGTGAATCAATGCTATTGTATGTCTGTGAACTAAAAA TTTCTTACTTATGGAGTTATGCTCAGGAAAACAATACTTAAAACTTAACTGTAACCTCT TAGCTTGAACATTTTCATTTTCTGTATCTTGCATGTTTCTCAGTGCCATTAATATA TTATCTTCTATTTCTTCTTAAAGAACTAGTGTTCATAAAAAGGATCATCATCATCCTC ACTTGATTCAAAATCAACCCCTTTCGATACTTGACTCTGGGACATGATTTGCTGGGTGA TGTGCTGGACCACCTTTGATCTGTCTTTGAAGTGGTAGGAAAAATGTCTTCTCCACATC TGATTCATCTACCTCAATCACCTCTGAATAATTCTTAGTAGTGACATTTTCGGGAAGGCTG CTGTCTGTAGATTTAAAGGCATCTATAATAGACATATTTCTAGATGCTGACACAGCAGT CTTTGAGTTCTGCTACGGGTAGAAGTCTCCAGACCAGTGTCTGCTCTTCTCTTTGAGA CCCTCCTCTCGATGCTGAATTCTGCCCTTCCACCTCTTCGACCTCTTCTCGGCCTCT TCCTTTGTTGGTTGCTGCTGAGATGCTATCATCAGAGTCATTAGCCATCTGTTCTGCTAA ATCTATACTCATAAGGTCATCAGCACTTAAAGCAGAAACAGACTTCTCTGACTGAGATCT GAGTGTCTGGCCCTGGTCATAGCCTCACAGACTCATCATCTCTTCAAATAAATTTTTTG CCTGTTCTCTGAACAAGTACCTCTCATG
Restriction Sites:	NotI-NotI
ACCN:	NM_005591
Insert Size:	3040 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<u>NM_005591.3</u> , <u>NP_005582.1</u>

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> <p>Transcript Variant: This variant (1) encodes the longer isoform of this protein.</p>