

## Product datasheet for **SC322679**

### **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:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:**

>OriGene sequence for SC322679  
 GAATTTGGAATCGAGTGCATTTTCTGACATTTGAGTACAGTACCCAGGGTTCTTGGAGA  
 AGAACCTGGTCCCAGAGGAGCTTGACTGACCATAAAAAATGAGTACTGCAGATGCACCTTGA  
 TGATGAAAACACATTTAAAAATATTAGTTGCAACAGATATTCATCTTGGATTTATGGAGAA  
 AGATGCAGTCAGAGGAAATGATACGTTTGAACACTCGATGAAATTTTAAAGACTTGCCCA  
 GGAAAAAGAGTGGATTTTATTTTGGTGGTGGTATCTTTTTCATGAAAATAAGCCCTC  
 AAGGAAAACATTACATACCTGCCTCGAGTTATTAAGAAAATATTGTATGGGTGATCGGCC  
 TGCCAGTTTGAATTTCTCAGTGATCAGTCAGTCAACTTTGGTTTTAGTAAGTTTCCATG  
 GGTGAACATCAAGATGGCAACCTCAACATTTCAATTCCAGTGTTTAGTATTCATGGCAA  
 TCATGACGATCCCACAGGGGAGATGCACCTTTGTGCCTTGGACATTTTAAAGTTGTGCTGG  
 ATTTGTAAATCACTTTGGACGTTCAATGTCTGTGGAGAAGATAGACATTAGTCCGGTTTT  
 GCTTCAAAAAGGAAGCACAAAGATTGCGCTATATGGTTTAGGATCCATTCAGATGAAAG  
 GCTCTATCGAATGTTTGTCAATAAAAAAGTAACAATGTTGAGACCAAAGGAAGATGAGAA  
 CTCTTGGTTAACTTATTTGTGATTTCATCAGAACAGGAGTAAACATGGAAGTACTAACTT  
 CATTCCAGAACAATTTTGGATGACTTCATTGATCTTGTATCTGGGGCCATGAACATGA  
 GTGAAAAATAGCTCCAACCAAAAATGAACAACAGCTGTTTTATATCTCACAACTGGAAG  
 CTCAGTGGTACTTCTCTTTCCCCAGGAGAAGCTGTAAGAAAACATGTTGGTTTGTCTGCG  
 TATTAAGGGAGGAAGATGAATATGCATAAAAATTCCTCTTACACAGTGCAGGAGTTTTT  
 CATGGAGGATATTGTTCTAGCTAATCATCCAGACATTTTAAACCCAGATAATCCTAAAGT  
 AACCCAAGCCATACAAAGCTTCTGTTTGGAGAAGATTGAAGAAAATGCTTGAAAATGCTGA  
 ACGGGAACGTCTGGGTAATCTCACCAGCCAGAGAAGCCTTGTACGACTGCGAGTGGAA  
 CTATAGTGGAGGTTTTGAACCTTTCAGTGTCTTCGCTTTAGCCAGAAAATTTGTGGATCG  
 GGTAGCTAATCCAAAAGACATTATCCATTTTTCAGGCATAGAGAACAAAAGGAAAAAAC  
 AGGAGAAGAGATCAACTTTGGGAACTTATCACAAAGCCTTCAGAAGGAACAACCTTAAAG  
 GGTAGAAGATCTTGTAAAACAGTACTTTCAAACCGCAGAGAAGAATGTGCAGCTCTCACT  
 GCTAACAGAAAGAGGGATGGGTGAAGCAGTACAAGAATTTGTGGACAAGGAGGAGAAAGA  
 TGCCATTGAGGAATTAGTGAAATACCAGTTGGAAAAAACACAGCGATTTCTTAAAGAACG  
 TCATATTGATGCCCTCGAAGACAAAATCGATGAGGAGGTACGTCGTTTCAGAGAAACCAG  
 ACAAAAAAATACTAATGAAGAAGATGATGAAGTCCGTGAGGCTATGACCAGGGCCAGAGC  
 ACTCAGATCTCAGTCAGAGGAGTCTGCTTCTGCCTTTAGTGCTGATGACCTTATGAGTAT  
 AGATTTAGCAGAACAGATGGCTAATGACTCTGATGATAGCATCTCAGCAGCAACCAACAA  
 AGGAAGAGGCCGAGGAAGAGGTGGAAGAGGGCAGAAATTCAGCATCGAGAGG  
 AGGGTCTCAAAGAGGAAGAGCAGACACTGGTCTGGAGACTTCTACCCGTAGCAGGAACTC  
 AAAGACTGCTGTGTCAGCATCTAGAAAATATGTCTATTATAGATGCCTTTAAATCTACAAG  
 ACAGCAGCCTTCCCGAAATGTCACTACTAAGAATTATTCAGAGGTGATTGAGGTAGATGA  
 ATCAGATGTGGAAGAAGACATTTTCTACCCTTCAAAGACAGATCAAAGGTGGTCCAG  
 CACATCATCCAGCAAAAATCATGTCCAGAGTCAAGTATCGAAAGGGGTTGATTTTGAATC  
 AAGTGAGGATGATGATGATGATCCTTTTATGAACACTAGTTCTTTAAGAAGAAAATAGAAG  
 ATAATATATTTAATGGCACTGAGAAACATGCAAGATACAGGAAAAATGAAAATGTTACAA  
 GCTAAGAGTTTACAGTTTAAAGTTTTAAGTATTGTTTCCCTGAGCATAACTCCATAAGTAA  
 GAAATTTCTAGTTACAGACATAACAATAGCATTGATTCACCTTGTTTTTTTAACCTGGTT  
 GTTGTAGTAAGAGCTTTGTTTCAATATCACTCTTGAGTAAAGATTAATAAAGCTACCA  
 TTTTACATTTCTATTTCAA  
 AA

**Restriction Sites:**

Please inquire

**ACCN:**

NM\_005591

<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_005591.3</a> , <a href="#">NP_005582.1</a>
<b>RefSeq Size:</b>	5141 bp
<b>RefSeq ORF:</b>	2127 bp
<b>Locus ID:</b>	4361
<b>UniProt ID:</b>	<a href="#">P49959</a>
<b>Cytogenetics:</b>	11q21
<b>Domains:</b>	Metallophos, Mre11_DNA_bind
<b>Protein Families:</b>	Druggable Genome, Stem cell - Pluripotency
<b>Protein Pathways:</b>	Homologous recombination, Non-homologous end-joining
<b>Gene Summary:</b>	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] Transcript Variant: This variant (1) encodes the longer isoform of this protein.