

### Product datasheet for RC209414L4

#### OriGene Technologies, Inc.

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## MRE11A (MRE11) (NM\_005591) Human Tagged Lenti ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** MRE11A (MRE11) (NM\_005591) Human Tagged Lenti ORF Clone

Tag: mGFP Symbol: MRE11

Synonyms: ATLD; HNGS1; MRE11A; MRE11B

Mammalian Cell Puromycin

Selection:

Vector:

pLenti-C-mGFP-P2A-Puro (PS100093)

E. coli Selection: Chloramphenicol (34 ug/mL)

Sgfl-Mlul

ORF Nucleotide The ORF insert of this clone is exactly the same as(RC209414).

Sequence:

Restriction Sites: Cloning Scheme:

Cloning sites used for ORF Shuttling:

Sgf 1 ORF Mlu 1

--- GCG ATC GCC ATG ---//--- NNN ACG CGT ---



<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_005591

ORF Size: 2124 bp





#### MRE11A (MRE11) (NM\_005591) Human Tagged Lenti ORF Clone - RC209414L4

**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:** <u>NM 005591.3</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

**MW:** 80.6 kDa

Gene Summary: 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

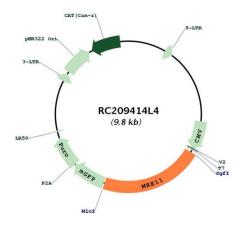
conjunction with a DNA ligase, this protein promotes the joining of noncomplementary ends

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

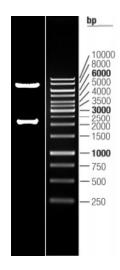
variants encoding different isoforms. [provided by RefSeq, Jul 2008]



# **Product images:**



Circular map for RC209414L4



Double digestion of RC209414L4 using Sgfl and Mlul