

# Product datasheet for KN209414BN

## MRE11 Human Gene Knockout Kit (CRISPR)

### **Product data:**

#### OriGene Technologies, Inc.

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Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 mBFP-Neo donor, 1 scramble control
Donor DNA:	mBFP-Neo
Symbol:	MRE11
Locus ID:	4361
Components:	<ul> <li>KN209414G1, MRE11 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)</li> <li>KN209414G2, MRE11 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)</li> <li>KN209414BND, donor DNA containing left and right homologous arms and mBFP-Neo functional cassette.</li> <li>GE100003, scramble sequence in pCas-Guide vector</li> </ul>
Disclaimer:	These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.
RefSeq:	<u>NM 005590, NM 005591, NM 001330347</u>
UniProt ID:	<u>P49959</u>
Synonyms:	ATLD; HNGS1; MRE11; MRE11B
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]



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#### **Product images:**



RFP, Luc, and mBFP will be under native gene promoter

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