

Product datasheet for KN209414RB

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MRE11 Human Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)

Format: 2 gRNA vectors, 1 RFP-BSD donor, 1 scramble control

Donor DNA: RFP-BSD Symbol: MRE11 Locus ID: 4361

Components: KN209414G1, MRE11 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN209414G2, MRE11 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN209414RBD, donor DNA containing left and right homologous arms and RFP-BSD

functional cassette.

GE100003, scramble sequence in pCas-Guide vector

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:

Donor Vector Edited Chromosome



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