

## Recombinant Human MRE11 Protein (M1-E411), His/GST tagged

Cat. No. MRE11-0312H    Lot. No. (See product label)

### SPECIFICATION

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| Product Overview | Recombinant Human 6His-GST-TEV-GG-MRE11A(M1-E411) Protein was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Species          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Source           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| ProteinLength    | M1-E411                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Description      | Component of the MRN complex, which plays a central role in double-strand break (DSB) repair, DNA recombination, maintenance of telomere integrity and meiosis. The complex possesses single-strand endonuclease activity and double-strand-specific 3'-5' exonuclease activity, which are provided by MRE11. RAD50 may be required to bind DNA ends and hold them in close proximity. This could facilitate searches for short or long regions of sequence homology in the recombining DNA templates, and may also stimulate the activity of DNA ligases and/or restrict the nuclease activity of MRE11 to prevent nucleolytic degradation past a given point. The complex may also be required for DNA damage signaling via activation of the ATM kinase. In telomeres the MRN complex may modulate t-loop formation. |
| Form             | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Endotoxin        | < 0.01 EU per µg of the protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>           | 90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Stability</b>        | Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Storage</b>          | Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Storage Buffer</b>   | Supplied as sterile 50mM Tris-HCl (pH 7.5), 200mM NaCl, 20% glycerol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Shipping</b>         | It is shipped out with blue ice.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Gene Name</b>        | <a href="#">MRE11 MRE11 homolog, double strand break repair nuclease [ Homo sapiens (human) ]</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Official Symbol</b>  | <a href="#">MRE11</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Synonyms</b>         | MRE11; MRE11 homolog, double strand break repair nuclease; ATLD; HNGS1; MRE11A; MRE11B; double-strand break repair protein MRE11; AT-like disease; DNA recombination and repair protein; MRE11 double strand break repair nuclease A; MRE11 homolog 1; MRE11 homolog A, double strand break repair nuclease; MRE11 homolog, double strand break repair nuclease A; MRE11 meiotic recombination 11 homolog A; MRE11 meiotic recombination 11-like protein A; double-strand break repair protein MRE11A; endo/exonuclease Mre11; meiotic recombination 11 homolog 1; meiotic recombination 11 homolog A |
| <b>Gene ID</b>          | <a href="#">4361</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>mRNA Refseq</b>      | <a href="#">NM_005590</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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|----------------|-----------|
| Protein Refseq | NP_005581 |
| MIM            | 600814    |
| UniProt ID     | P49959    |

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