



# Human MRE11A (phospho S678) peptide (DAG-P0941)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Antigen Description</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]
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<b>Purity</b>	70 - 90% by HPLC.
<b>Conjugate</b>	Unconjugated
<b>Sequence Similarities</b>	Belongs to the MRE11/RAD32 family.
<b>Format</b>	Liquid
<b>Preservative</b>	None
<b>Storage</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. Information available upon request.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">MRE11A MRE11 meiotic recombination 11 homolog A (S. cerevisiae) [ Homo sapiens (human) ]</a>
<b>Official Symbol</b>	MRE11A

<b>Synonyms</b>	MRE11A; MRE11 meiotic recombination 11 homolog A (S. cerevisiae); ATLD; HNGS1; MRE11; MRE11B; double-strand break repair protein MRE11A; AT-like disease; MRE11 homolog 1; MRE11 homolog A; endo/exonuclease Mre11; meiotic recombination 11 homolog 1; meiotic recombination 11 homolog A; DNA recombination and repair protein;
<b>Entrez Gene ID</b>	<a href="#">4361</a>
<b>mRNA Refseq</b>	<a href="#">NM_005590.3</a>
<b>Protein Refseq</b>	<a href="#">NP_005581.2</a>
<b>UniProt ID</b>	P49959
<b>Chromosome Location</b>	11q21
<b>Pathway</b>	Assembly of the RAD50-MRE11-NBS1 complex at DNA double-strand breaks, organism-specific biosystem; BARD1 signaling events, organism-specific biosystem; BRCA1-associated genome surveillance complex (BASC), organism-specific biosystem; BRCA1-associated genome surveillance complex (BASC), conserved biosystem; Cellular Senescence, organism-specific biosystem; Cellular responses to stress, organism-specific biosystem; Cytosolic sensors of pathogen-associated DNA, organism-specific biosystem; DNA Dama
<b>Function</b>	3-5 exonuclease activity; contributes_to ATP-dependent DNA helicase activity; contributes_to DNA binding; double-stranded DNA binding; endodeoxyribonuclease activity; manganese ion binding; nuclease activity; protein C-terminus binding; protein binding; s