MRE11 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	MRE11, Polyclonal Antibody
Full Product Name	MRE11 Rabbit pAb
Product Gene Name	anti-MRE11 antibody
Product Synonym Names	MRE11 homolog 1; Meiotic recombination 11 homolog A; MRE11 homolog A; MRE11A; HNGS1; MRE11
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	In phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% Sodium Azide and 50% Glycerol.
Purity/Purification	Affinity Chromatography
Preparation and Storage	Store at 4 degree C short term. Store at -20 degree C long term. Avoid freeze/thaw cycle.
Molecular Weight	81kDa
OMIM	600814
3D Structure	ModBase 3D Structure for P49959
Immunogen	A synthesized peptide derived from human Mre11
Cellular Localization	Chromosome, Nucleus, Telomere
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-MRE11 antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-MRE11 antibody	WB: 1:500-1:1000 IHC: 1:50-1:200
Related Product Information for anti-MRE11 antibody	DNA double-strand breaks are generated by ionizing radiation and endogenously produced radicals, and they often are repaired through the RAD52 homologous recombination pathway. The complex possesses single-strand endonuclease activity and double-strand-specific 3'-5' exonuclease activity, which are provided by MRE11A. RAD50 may be required to bind DNA ends and hold them in close proximity.
Other Notes	Small volumes of anti-MRE11 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for MRE11 purchase	MBS8543238 is an antibody targeting MRE11. Also known as MRE11 Rabbit pAb. Reactive in Human, Mouse, Rat. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MRE11. It may not necessarily be applicable to this product.

NCBI GI #	24234690
NCBI GeneID	4361

NCBI Accession #	NP_005581.2
UniProt Primary Accession #	P49959
UniProt Related Accession #	P49959
GenBank Nucleotide #	NP_005581.2
NCBI Official Full Name	double-strand break repair protein MRE11 isoform 2
NCBI Official Synonym Full Names	MRE11 homolog, double strand break repair nuclease
NCBI Official Symbol	MRE11
NCBI Official Synonym Symbols	ATLD; HNGS1; MRE11A; MRE11B
UniProt Protein Name	Double-strand break repair protein MRE11A
UniProt Synonym Protein Names	Meiotic recombination 11 homolog 1; MRE11 homolog 1; Meiotic recombination 11 homolog A
Protein Family	DNA double-strand break repair protein
UniProt Gene Name	MRE11A
UniProt Synonym Gene Names	HNGS1; MRE11; MRE11 homolog 1
UniProt Entry Name	MRE11_HUMAN
NCBI Protein Information	double-strand break repair protein MRE11
NCBI Summary for MRE11	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]
UniProt Comments for MRE11	MRE11A: 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. Alternative splicing results in two different isoforms. Protein type: Cell cycle regulation; DNA-binding; Deoxyribonuclease; DNA repair, damage Chromosomal Location of Human Ortholog: 11q21 Cellular Component: nucleoplasm; chromosome, telomeric region; Mre11 complex; cytosol; chromatin; nucleus Molecular Function: protein C-terminus binding; ATP-dependent DNA helicase activity; protein binding; nuclease activity; DNA binding; single-stranded DNA specific endodeoxyribonuclease activity; manganese ion binding; endonuclease activity; double-stranded DNA binding; 3'-5' exonuclease activity; endodeoxyribonuclease activity Biological Process: sister chromatid cohesion; positive regulation of kinase activity; negative regulation of DNA endoreduplication; telomere maintenance via telomerase; DNA repair; regulation of mitotic recombination; DNA catabolic process, endonucleolytic; positive regulation of protein amino acid autophosphorylation; DNA duplex unwinding; double-strand break repair via homologous recombination; double-strand break repair via nonhomologous end joining; DNA recombination; cell proliferation; base-excision repair; nucleotide-excision repair; intra-S DNA damage checkpoint; meiotic recombination; mitotic cell cycle G2/M transition DNA damage checkpoint; double-strand break repair; synapsis; positive regulation of interferon type I production; innate immune response; response to DNA damage stimulus; telomere maintenance Disease: Ataxia-telangiectasia-like Disorder 1

Research Articles on MRE11	**1.** depletion of Rad21 in a Pds5-deficient background rescues the phenotype observed upon Pds5 depletion alone. These findings support a model where loss of either component of the cohesin releasin complex perturbs cohesin dynamics on replication forks, hindering fork progression and promoting MRE11-dependent fork slowing
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-human-mouse-rat-antibody/mre11/8543238