

**Mre11 Antibody**  
Rabbit mAb  
Catalog # AP91219

## Specification

---

### Mre11 Antibody - Product Information

Application	WB, IHC
Primary Accession	<a href="#">P49959</a>
Reactivity	Rat
Clonality	Monoclonal
<b>Other Names</b>	
MRE11 homolog 1; Meiotic recombination 11 homolog A; MRE11 homolog A; MRE11A; HNGS1; MRE11;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	80593 Da

### Mre11 Antibody - Additional Information

Purification	<b>Affinity-chromatography</b>
Immunogen	<b>A synthesized peptide derived from human Mre11</b>
Description	<b>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.</b>
Storage Condition and Buffer	<b>Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.</b>

### Mre11 Antibody - Protein Information

**Name** MRE11 {ECO:0000303|PubMed:8530104, ECO:0000312|HGNC:HGNC:7230}

#### Function

Core component of the MRN complex, which plays a central role in double-strand break (DSB) repair, DNA recombination, maintenance of telomere integrity and meiosis (PubMed:<a href="http://www.uniprot.org/citations/11741547" target="\_blank">11741547</a>, PubMed:<a href="http://www.uniprot.org/citations/14657032" target="\_blank">14657032</a>, PubMed:<a



[30787182](http://www.uniprot.org/citations/30787182)). The MRN complex is also required for DNA damage signaling via activation of the ATM and ATR kinases: the nuclease activity of MRE11 is not required to activate ATM and ATR (PubMed:[14657032](http://www.uniprot.org/citations/14657032), PubMed:[15064416](http://www.uniprot.org/citations/15064416), PubMed:[15790808](http://www.uniprot.org/citations/15790808), PubMed:[16622404](http://www.uniprot.org/citations/16622404)). The MRN complex is also required for the processing of R-loops (PubMed:[31537797](http://www.uniprot.org/citations/31537797)). The MRN complex is involved in the activation of the cGAS-STING pathway induced by DNA damage during tumorigenesis: the MRN complex acts by displacing CGAS from nucleosome sequestration, thereby activating it (By similarity). In telomeres the MRN complex may modulate t-loop formation (PubMed:[10888888](http://www.uniprot.org/citations/10888888)).

### Cellular Location

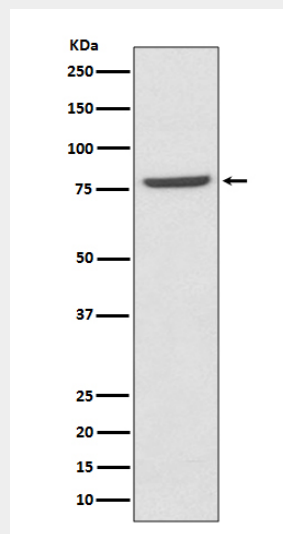
Nucleus. Chromosome. Chromosome, telomere Note=Localizes to DNA double-strand breaks (DSBs)

### Mre11 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Mre11 Antibody - Images



Western blot analysis of Mre11 expression in K562 cell lysate.