

Mre11 Antibody
Rabbit mAb
Catalog # AP91219

Specification

Mre11 Antibody - Product Information

Application	WB, IHC
Primary Accession	P49959
Reactivity	Rat
Clonality	Monoclonal
Other Names	
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	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Mre11
Description	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.
Storage Condition and Buffer	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.

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:11741547, PubMed:14657032, 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

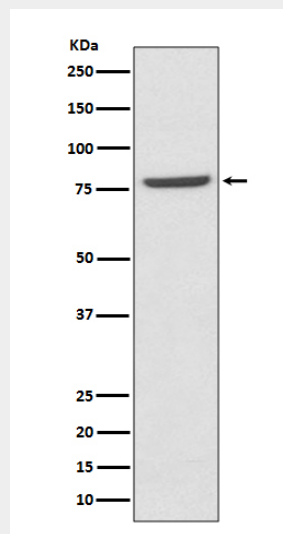
Nucleus. Chromosome. Chromosome, telomere Note=Localizes to DNA double-strand breaks (DSBs)

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.