

Rabbit MRE11 Polyclonal Antibody | anti-MRE11 antibody

Anti-MRE11 Picoband antibody

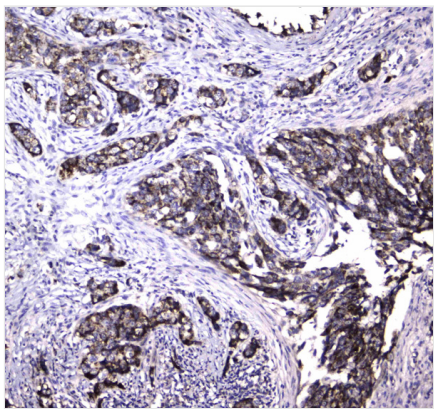
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA124590	Rabbit	Human, Mouse, Rat No cross reactivity with other proteins.	Western Blot, Immunohistochemistry, ELISA

PRODUCT SYNONYMS

MRE11; Polyclonal Antibody; Anti-MRE11 Picoband antibody; Double-strand break repair protein MRE11; Double-strand break repair protein MRE11A; Meiotic Recombinant 11 homolog 1; MRE11 homolog 1; Meiotic Recombinant 11 homolog A; MRE11 homolog A; anti-MRE11 antibody

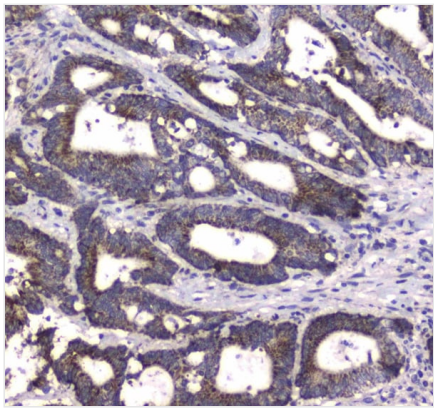
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat No cross reactivity with other proteins.
Clonality	Polyclonal
Form/Format	Lyophilized
Sequence Length	711
Applicable Applications for anti-MRE11 antibody	WB (Western Blot), IHC (Immunohistochemistry), ELISA
Immunogen	E Coli-derived human MRE11 recombinant protein (Position: S2-D239).
Subcellular Localization	Nucleus.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



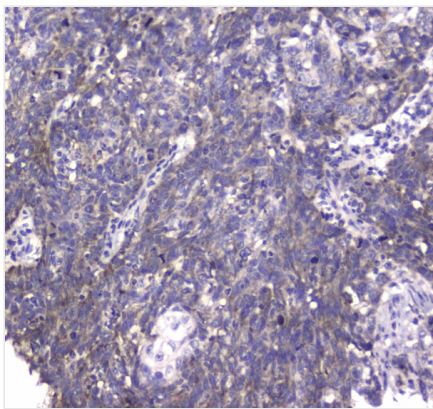
IHC (Immunohistochemistry)

Figure 4. IHC analysis of MRE11 using anti-MRE11 antibody (AAA124590).MRE11 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MRE11 Antibody (AAA124590) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



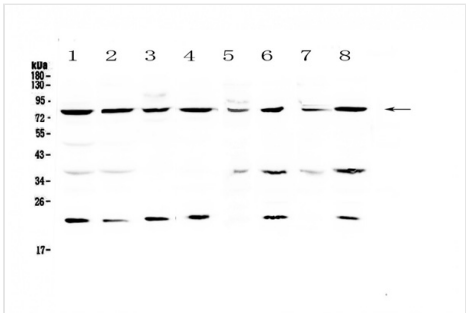
IHC (Immunohistochemistry)

Figure 2. IHC analysis of MRE11 using anti-MRE11 antibody (AAA124590).MRE11 was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MRE11 Antibody (AAA124590) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of MRE11 using anti-MRE11 antibody (AAA124590).MRE11 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MRE11 Antibody (AAA124590) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of MRE11 using anti-MRE11 antibody (AAA124590).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: human HeLa whole cell lysates,Lane 2: human MCF-7 whole cell lysates,Lane 3: human COLO-320 whole cell lysates,Lane 4: human U-87MG whole cell lysates,Lane 5: rat brain tissue lysates,Lane 6: rat liver tissue lysates,Lane 7: mouse brain tissue lysates,Lane 8: mouse liver tissue lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MRE11 antigen affinity purified polyclonal antibody at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for MRE11 at approximately 81KD. The expected band size for MRE11 is at 81KD.

ADDITIONAL INFORMATION

Related Product Information for anti-MRE11 antibody

Description: Double-strand break repair protein MRE11A is a protein that in humans is encoded by the MRE11A gene. 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.

Protein Function: 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 (PubMed: 9651580, PubMed: 9590181, PubMed: 9705271, PubMed: 11741547). The complex may also be required for DNA damage signaling via activation of the ATM kinase (PubMed: 15064416). In telomeres the MRN complex may modulate t-loop formation (PubMed: 10888888).

NCBI AND UNIPROT INFORMATION

NCBI GI #	24234690
NCBI GeneID	4361
NCBI Accession #	NP_005581.2
NCBI GenBank Nucleotide #	NM_005590.3
UniProt Accession #	P49959; O43475; B3KTC7
Molecular Weight	81,070 Da
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
NCBI Protein Information	double-strand break repair protein MRE11; double-strand break repair protein MRE11A
UniProt Protein Name	Double-strand break repair protein MRE11
UniProt Gene Name	MRE11
UniProt Synonym Gene Names	MRE11 homolog 1; MRE11 homolog A

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/mre11-antibody-western-blot-immunohistochemistry-elisa/124590>