

## MRE11 (Phospho Ser676) Rabbit pAb

CatalogNo: YP1407

### Key Features

Host Species • Rabbit	Reactivity <ul> <li>Human,Mouse,Rat</li> </ul>	Applications <ul> <li>WB,ELISA,IHC</li> </ul>
MW • 80kD (Observed)	Isotype • IgG	

#### **Recommended Dilution Ratios**

WB 1:500-2000 IHC 1:50-300 ELISA 1:2000-20000

### **Storage**

Storage\*-15°C to -25°C/1 year(Do not lower than -25°C)FormulationLiquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

#### Basic Information

Clonality Polyclonal

#### Immunogen Information

Immunogen Synthesized phosho peptide around human Mre11 (Ser676)

**Specificity** This antibody detects endogenous levels of Human Mre11 (phospho-Ser676). The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):IMsQS

### Target Information

#### Gene name MRE11A HNGS1 MRE11

#### Protein Name Mre11 (Ser676)

Organism	Gene ID	UniProt ID
Human	<u>4361;</u>	<u>P49959;</u>
Mouse	<u>17535;</u>	<u>Q61216;</u>
Rat	<u>64046;</u>	<u>Q9JIM0;</u>

# CellularNucleus . Chromosome, telomere . Chromosome . Localizes to discrete nuclear foci after<br/>treatment with genotoxic agents. .

Tissue specificity Bladder, Brain, Epithelium, Lung,

**Function** cofactor: Manganese...Disease: Defects in MRE11A are a cause of ataxia telangiectasia-like disorder (ATLD) [MIM:604391]. ATLD is a disease with the same clinical feature than ataxiatelangiectasia but with a somewhat milder clinical course. Disease: Defects in MRE11A may be a cause of breast cancer.,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 MRE11A. 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 MRE11A to prevent nucleolytic degradation past a given point. The complex may also be required for DNA damage signaling via activation of the ATM kinase. In telomeres the MRN complex may modulate t-loop formation.,miscellaneous: In case of infection by adenovirus E4, the MRN complex is inactivated and degraded by viral oncoproteins, thereby preventing concatenation of viral genomes in infected cells., online information: MRE11A mutation db,PTM:Phosphorylated upon DNA damage, probably by ATM or ATR., similarity: Belongs to the MRE11/RAD32 family., subcellular location: Localizes to discrete nuclear foci after treatment with genotoxic agents., subunit: Component of the MRN complex composed of two heterodimers RAD50/MRE11A associated with a single NBN. Component of the BASC complex, at least composed of BRCA1, MSH2, MSH6, MLH1, ATM, BLM, RAD50, MRE11A and NBN (By similarity). Interacts with DCLRE1C/Artemis.,

#### Validation Data



Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).



Western Blot analysis of Hela A431 cell ,using primary antibody at 1:1000 dilution. Secondary antibody(catalog#:RS23920) was diluted at 1:10000

#### **Contact information**

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Antibody | ELISA Kits | Protein | Reagents