MRE11 (Phospho Ser264) Rabbit pAb

CatalogNo: YP0394 Orthogonal Validated

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,ELISA,IHC

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)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human MRE11 around the phosphorylation site of Ser264. AA range:230-279
Specificity	Phospho-MRE11 (S264) Polyclonal Antibody detects endogenous levels of MRE11 protein only when phosphorylated at S264.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 When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports.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):YIsQP

Target Information

Gene name MRE11A HNGS1 MRE11

Protein Name Double-strand break repair protein MRE11A

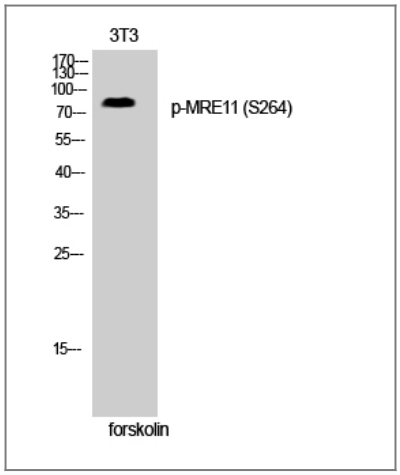
Organism	Gene ID	UniProt ID
Human	4361;	P49959;
Mouse	17535;	Q61216;
Rat	64046;	Q9JIM0;

Cellular Localization Nucleus . Chromosome, telomere . Chromosome . Localizes to discrete nuclear foci after treatment with genotoxic agents. .

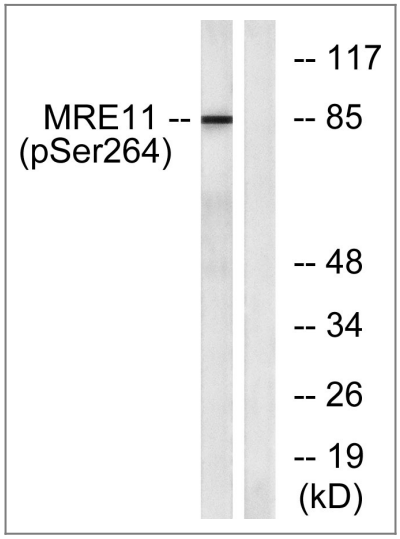
Tissue specificity Bladder,Brain,Epithelium,Lung,

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 ataxia-telangiectasia 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.,

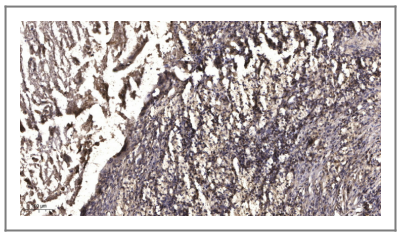
Validation Data



Western Blot analysis of 3T3 cells using Phospho-MRE11 (S264) Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003,Inventbiotech,MN,USA).



Western blot analysis of lysates from NIH/3T3 cells treated with forskolin 40nM 30', using MRE11 (Phospho-Ser264) Antibody. The lane on the right is blocked with the phospho peptide.



Immunohistochemical analysis of paraffin-embedded human Squamous cell carcinoma of lung. 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).

Contact information

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Please scan the QR code to access additional product information:
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