Best Tools for immunology Research

MRE11 (phospho Ser264) Polyclonal Antibody

Catalog No :	YP0394
Reactivity :	Human;Mouse;Rat
Applications :	WB;ELISA;IHC
Target :	MRE11
Fields :	>>Homologous recombination;>>Non-homologous end-joining;>>Cellular senescence
Gene Name :	MRE11A
Protein Name :	Double-strand break repair protein MRE11A
Human Gene Id :	4361
Human Swiss Prot No :	P49959
Mouse Gene Id :	17535
Mouse Swiss Prot No :	Q61216
Rat Gene Id :	64046
Rat Swiss Prot No :	Q9JIM0
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.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500-2000;IHC 1:50-300; ELISA 2000-20000

Purification : The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 80kD

Cell Pathway : Homologous recombination;Non-homologous end-joining;

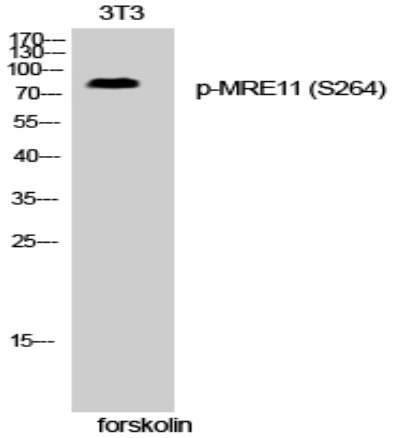
Background : This gene encodes a nuclear protein involved in homologous recombination, telomere length maintenance, and DNA double-strand break repair. By itself, the protein has 3' to 5' exonuclease activity and endonuclease activity. The protein forms a complex with the RAD50 homolog; this complex 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. [provided by RefSeq, Jul 2008],

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 prev

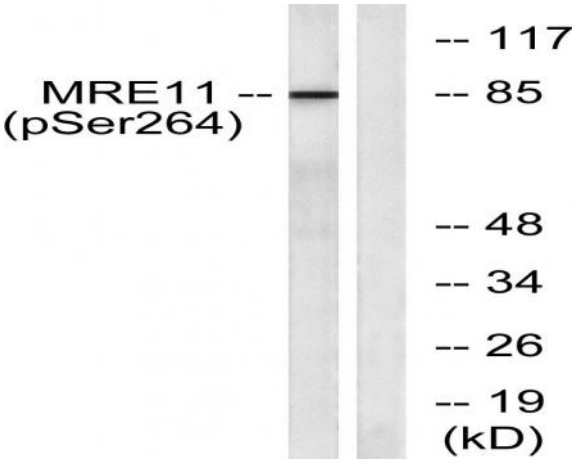
Subcellular Location : Nucleus . Chromosome, telomere . Chromosome . Localizes to discrete nuclear foci after treatment with genotoxic agents. .

Expression : Bladder,Brain,Epithelium,Lung,

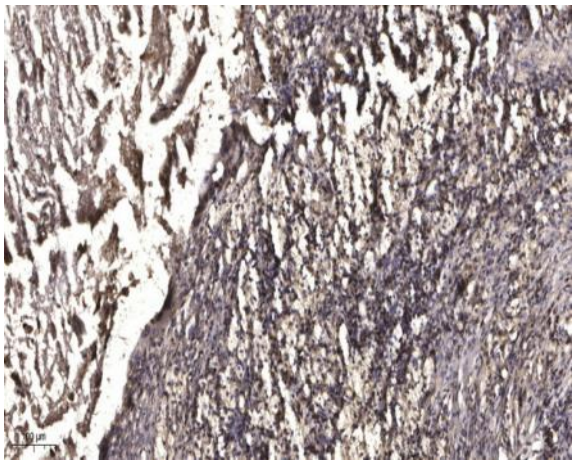
Products Images



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).