Technical Data Sheet

Purified Mouse Anti- Mre11

Product Information

Material Number: 611366
Size: 50 µg
Concentration: 250 µg/ml
Clone: 18/MRE11
Immunogen: Human Mre11 aa. 3-194
Isotype: Mouse IgG1
Reactivity: QC Testing: Human
Tested in Development: Mouse, Rat
Target MW: 81 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Originally identified in S. cerevisiae, Rad50 is one of a group of genes, designated the Rad52 epistasis group, whose products mediate DNA double-stranded break (DSB) repair. Many of these genes, including Rad50, are conserved in humans and have a similar function to their S. cerevisiae counterparts. In yeast, a multiprotein complex of Rad50, Mre11, and XRS2 has been implicated in the nucleocytic processing of DSBs, in homologous recombination, in nonhomologous end joining, and in telomere maintenance. In humans, Rad50 and Mre11 complex with up to three additional proteins (95 kDa, 200 kDa, and 350 kDa). The 95 kDa species is thought to be human XRS2, although a separate report has identified it as Nibrin, the product of the gene mutated in Nijmegen breakage syndrome. The Rad50-Mre11-p95 complex possesses endonuclease and 3’ to 5’ exonuclease activity. Mre11 may provide both the endonuclease and exonuclease activity, but may also be involved in other functions related to this complex. Mre11 is ubiquitously expressed, with the highest expression in proliferating tissues. Thus, MRE11 may function in a multiprotein complex that has many roles during DNA maintenance and repair.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20°C.

Application Notes

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<th>Application</th>
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<td>Immunofluorescence</td>
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Petrini JH, Walsh ME, DiMare C, Chen XN, Korenberg JR, Weaver DT. Isolation and characterization of the human MRE11 homologue. Genomics. 1995; 29(1):80-86. (Biology)