

MRE11 Monoclonal Antibody (12D7)

Catalog NumberMA1-23253

Product data sheet

Details		Species Reactivity	
Size	100 µL	Species reactivity	Human, Mouse
Host/Isotope	Mouse / IgG1	Tested Applications	
Class	Monoclonal	ELISA (ELISA)	Assay-dependent
Type	Antibody	Functional Assay (FN)	Assay-dependent
Clone	12D7	Immunohistochemistry (Paraffin) (IHC (P))	1:20
Immunogen	Amino acids 182-582 of Mre11 expressed in E. coli.	Immunoprecipitation (IP)	1:100
Conjugate	Unconjugated	Western Blot (WB)	1:500-1:3,000
Form	Liquid	in situ PLA (PLA)	Assay-dependent
Concentration	0.45 mg/mL	Immunocytochemistry (ICC/IF)	1:100-1:1,000
Purification	Protein G	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Storage buffer	PBS		
Contains	no preservative		
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.		

Product specific information

Recommended positive controls: HeLa, Jurkat, Raji, NCI-H929, 293T, human Mre11-transfected 293T, PC-12.

Background/Target Information

MRE11 (double-strand break repair protein MRE11) is a component of the MRN complex. This complex plays a central role in double-strand break repair, DNA recombination, maintenance of telomere integrity and meiosis. The complex possesses single-stranded endonuclease activity and double-strand-specific 3'-5' exonuclease activity which are provided by MRE11. RAD50 is required to bind DNA ends and hold them in close proximity. Mutations in the gene could result in ataxia-telangiectasia-like disorder 1.

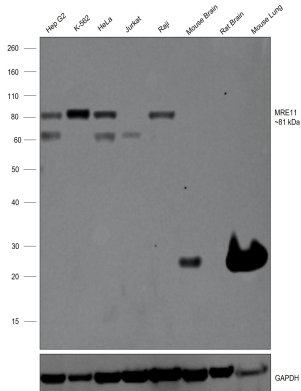
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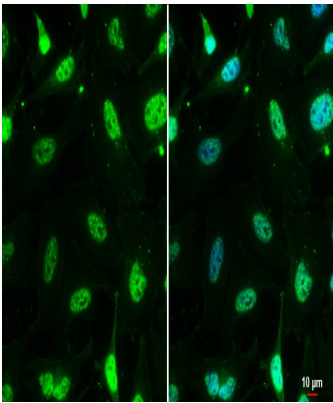
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Product Images For MRE11 Monoclonal Antibody (12D7)



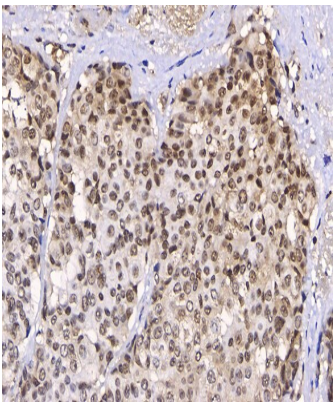
MRE11 Antibody (MA1-23253) in WB

Western blot was performed using MRE11 Monoclonal Antibody (12D7) (Product # MA1-23253) and a 81 kDa band corresponding to MRE11 was observed across all the cell lines. Whole cell extracts (30 µg lysate) of Hep G2 (Lane 1), K-562 (Lane 2), HeLa (Lane 3), Raji (Lane 4) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0322BOX), 12 well. Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1: 1000) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1:10,000) using the iBright™ FL1500 Imaging System (Product # A44115). Chemiluminescent detection was performed using SuperSignal™ West Pico PLUS Chemiluminescent Substrate (Product # 34580).



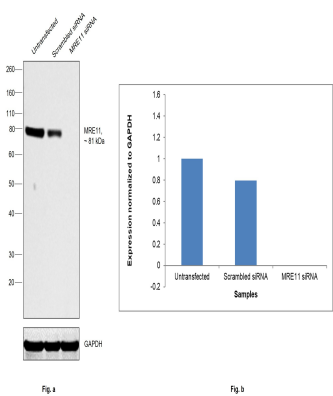
MRE11 Antibody (MA1-23253) in ICC/IF

Immunocytochemistry-Immunofluorescence analysis of MRE11 was performed in HeLa cells fixed in 4% paraformaldehyde at RT for 15 min. Green: MRE11 Monoclonal Antibody (12D7) (Product # MA1-23253) diluted at 1: 200. Blue: Hoechst 33342 staining. Scale bar = 10 µm.



MRE11 Antibody (MA1-23253) in IHC (P)

MRE11 Monoclonal Antibody (12D7) detects Mre11 protein at nucleus by immunohistochemical analysis (Autostainer Formulated). Sample: Paraffin-embedded human colon cancer. Mre11 stained by MRE11 Monoclonal Antibody (12D7) (Product # MA1-23253) diluted at 1:300. Antigen Retrieval: EDTA buffer, 20 min.



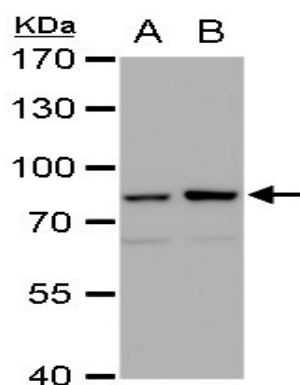
MRE11 Antibody (MA1-23253) in WB

Knockdown of MRE11 was achieved by transfecting HeLa with MRE11 specific siRNAs (Silencer® select Product # s8959, s8960). Western blot analysis (Fig. a) was performed using whole cell extracts from the MRE11 knockdown cells (lane 3), non-targeting scrambled siRNA transfected cells (lane 2) and untransfected cells (lane 1). The blot was probed with MRE11 Monoclonal Antibody (12D7) (Product # MA1-23253, 1:1000) and Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1:10,000). Densitometric analysis of this western blot is shown in histogram (Fig. b). Decrease in signal upon siRNA mediated knock down confirms that antibody is specific to MRE11.

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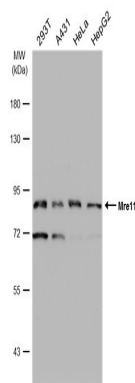
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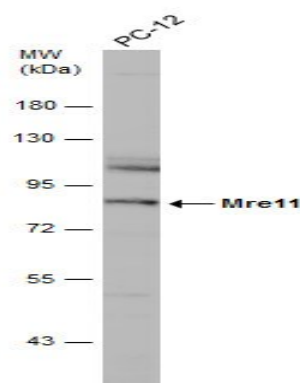
MRE11 Antibody (MA1-23253) in WB

MRE11 Monoclonal Antibody (12D7) detects Mre11 protein by western blot analysis. A. 30 µg 293T whole cell extract. B. 30 µg whole cell extract of human Mre11-transfected 293T cells. 7.5% SDS-PAGE. MRE11 Monoclonal Antibody (12D7) (Product # MA1-23253) dilution: 1:1,000. The HRP-conjugated anti-mouse IgG antibody was used to detect the primary antibody.



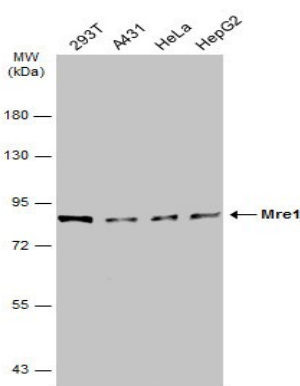
MRE11 Antibody (MA1-23253) in WB

Western Blot using MRE11 Monoclonal Antibody (12D7) (Product # MA1-23253). Various whole cell extracts (30 µg) were separated by 7.5% SDS-PAGE, and the membrane was blotted with MRE11 Monoclonal Antibody (12D7) (Product # MA1-23253) diluted at 1:500. The HRP-conjugated anti-mouse IgG antibody was used to detect the primary antibody.



MRE11 Antibody (MA1-23253) in WB

Western Blot analysis of MRE11 was performed by separating 30 µg of Whole cell extracts by 7.5% SDS-PAGE. Proteins were transferred to a membrane and probed with a MRE11 Monoclonal Antibody (12D7) (Product # MA1-23253) at a dilution of 1:500. The HRP-conjugated anti-mouse IgG antibody was used to detect the primary antibody.



MRE11 Antibody (MA1-23253) in WB

Western Blot analysis of MRE11 was performed by separating 30 µg of various whole cell extracts by 7.5% SDS-PAGE. Proteins were transferred to a membrane and probed with a MRE11 Monoclonal Antibody (12D7) (Product # MA1-23253) at a dilution of 1:1000 and a HRP-conjugated anti-mouse IgG secondary antibody.

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