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Phospho-Histone H2A.X (Ser139) Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52853

Product Information

Primary Accession	P16104
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	15145

Additional Information

Gene ID	3014
Other Names	H2A histone family, member X;H2A.X;H2a/x;H2AFX;H2AX;H2AX histone;H2AX_HUMAN;Histone H2A.X;Histone H2AX
Format	Purified mouse monoclonal antibody in PBS(pH 7.4) containing with 0.09% (W/V) sodium azide and 50% glycerol.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	H2AX (HGNC:4739)
Function	Variant histone H2A which replaces conventional H2A in a subset of nucleosomes. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post- translational modifications of histones, also called histone code, and nucleosome remodeling. Required for checkpoint-mediated arrest of cell cycle progression in response to low doses of ionizing radiation and for efficient repair of DNA double strand breaks (DSBs) specifically when modified by C-terminal phosphorylation.
Cellular Location	Nucleus. Chromosome

Background

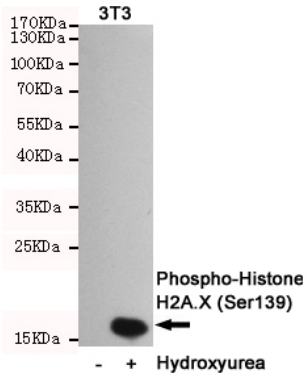
Variant histone H2A which replaces conventional H2A in a subset of nucleosomes. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a

template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and nucleosome remodeling. Required for checkpoint-mediated arrest of cell cycle progression in response to low doses of ionizing radiation and for efficient repair of DNA double strand breaks (DSBs) specifically when modified by C- terminal phosphorylation.

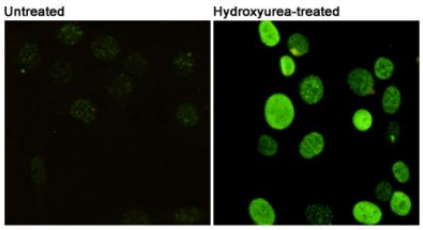
References

Mannironi C.,et al.Nucleic Acids Res. 17:9113-9126(1989).
Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Rogakou E.P.,et al.J. Biol. Chem. 273:5858-5868(1998).
Rogakou E.P.,et al.J. Cell Biol. 146:905-916(1999).
Paull T.T.,et al.Curr. Biol. 10:886-895(2000).

Images



Western blot detection of Phosphorylation of H2A.X at Serine 139 in 3T3 or Hydroxyurea-treated 3T3 cell lysates using Phospho-Histone H2A.X (Ser139) mouse mAb (1:2000 diluted).Predicted band size:15KDa.Observed band size:15KDa.



Immunofluorescent analysis of Phosphorylation of H2A.X at Serine 139 in 3T3 or Hydroxyurea-treated 3T3 cells using Phospho-Histone H2A.X (Ser139) mouse mAb (1:400).