

Phospho-Histone H2A.X (Ser139) Monoclonal Antibody

Purified Mouse Monoclonal Antibody (Mab) Catalog # AP52850

Product Information

Application	WB, ICC
Primary Accession	<u>P16104</u>
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a
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
Dilution	WB~~1:2000 ICC~~1:400
Format	Purified mouse monoclonal antibody in PBS(pH 7.4) containing with 0.09% (W/V) sodium azide and 50% glycerol.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	H2AX (<u>HGNC:4739</u>)
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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.