

Phospho-Histone H2A.X (Ser139) Monoclonal Antibody

Purified Mouse Monoclonal Antibody (Mab) Catalog # AP52850

Product Information

Application WB, ICC Primary Accession P16104

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

histone; H2AX_HUMAN; Histone H2A.X; Histone H2AX

Dilution WB~~1:2000 ICC~~1:400

Format Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH

7.3.

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

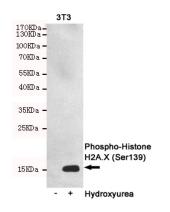
Background

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.

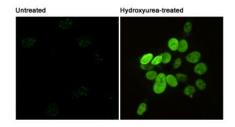
References

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

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