

Phospho-Histone H2A.X (Ser139) Monoclonal Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52850

Specification

Phospho-Histone H2A.X (Ser139) Monoclonal Antibody - Product Information

| | |
|-------------------|------------------------|
| Application | WB, ICC |
| Primary Accession | P16104 |
| Reactivity | Human, Mouse |
| Host | Mouse |
| Clonality | Monoclonal |
| Isotype | IgG2a |
| Calculated MW | 15 KDa |

Phospho-Histone H2A.X (Ser139) Monoclonal Antibody - 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

Phospho-Histone H2A.X (Ser139) Monoclonal Antibody - 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

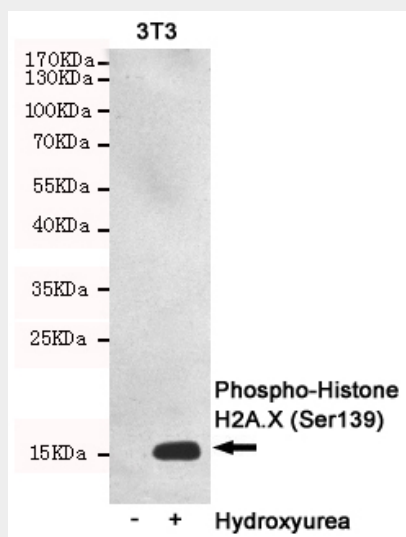
Nucleus. Chromosome

Phospho-Histone H2A.X (Ser139) Monoclonal Antibody - Protocols

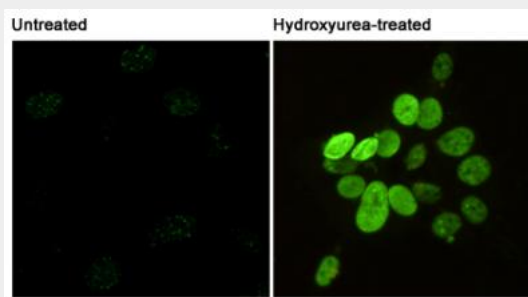
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Phospho-Histone H2A.X (Ser139) Monoclonal Antibody - 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

Phospho-Histone H2A.X (Ser139) Monoclonal Antibody - 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.

Phospho-Histone H2A.X (Ser139) Monoclonal Antibody - 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).