

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

**Specification**

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

Application	WB, ICC
Primary Accession	<a href="#">P16104</a>
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**

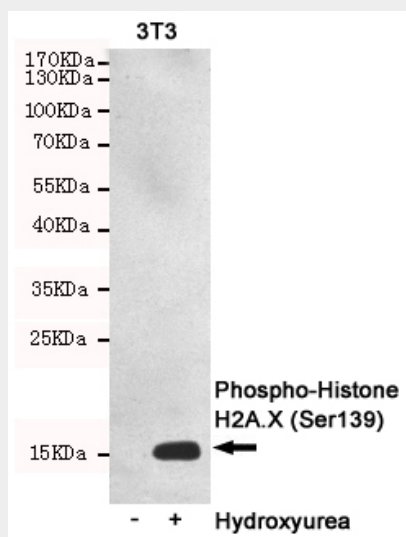
Nucleus. Chromosome

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

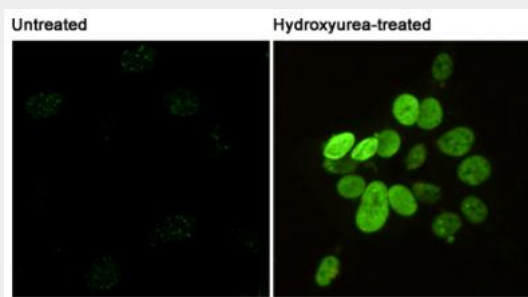
Provided below are standard protocols that you may find useful for product applications.

- [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).