10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

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
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.

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

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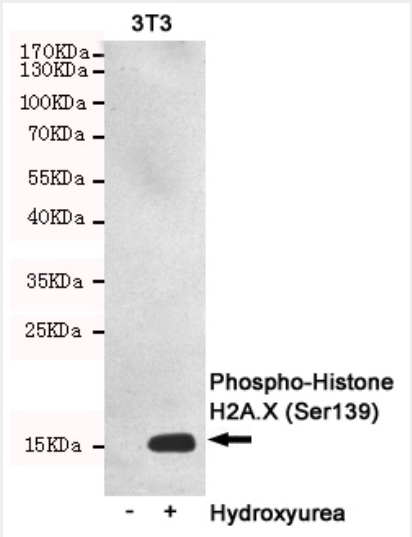
Phospho-Histone H2A.X (Ser139) Monoclonal Antibody - Protocols

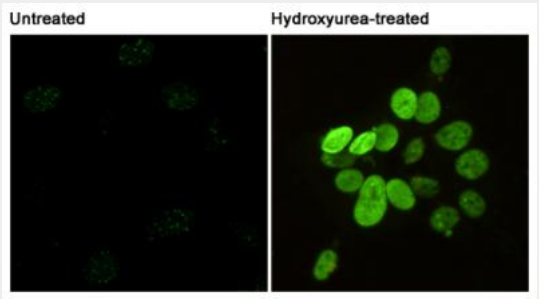
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- 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

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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).