

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

Catalog # AP52853

Specification

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

Application Primary Accession Reactivity Host Clonality Isotype Calculated MW WB, ICC <u>P16104</u> Mouse Mouse Monoclonal IgG1 15 KDa

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

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Phospho-Histone H2A.X (Ser139) 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 (Ser139) mouse mAb (1:400).

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