

**Anti-Phospho-Histone H2A.X (S139) H2AFX Monoclonal Antibody**  
**Catalog # ABO14380****Specification****Anti-Phospho-Histone H2A.X (S139) H2AFX Monoclonal Antibody - Product Information**

Application	WB, IHC, IF, ICC, IP
Primary Accession	<a href="#">P16104</a>
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

**Description**

Anti-Phospho-Histone H2A.X (S139) H2AFX Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP applications. This antibody reacts with Human, Mouse, Rat.

**Anti-Phospho-Histone H2A.X (S139) H2AFX Monoclonal Antibody - Additional Information**

**Gene ID** 3014

**Other Names**

Histone H2AX, H2a/x, Histone H2A.X, H2AX ([http://www.genenames.org/cgi-bin/gene\\_symbol\\_report?hgnc\\_id=4739](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=4739))  
HGNC:4739

**Calculated MW**

15 kDa KDa

**Application Details**

WB 1:5000-1:10000<br>IHC 1:50-1:200<br>ICC/IF 1:50-1:200<br>IP 1:30

**Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

**Immunogen**

A synthesized peptide derived from human Phospho-Histone H2A.X (S139)

**Purification**

Affinity-chromatography

**Storage**

**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

**Anti-Phospho-Histone H2A.X (S139) H2AFX 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**

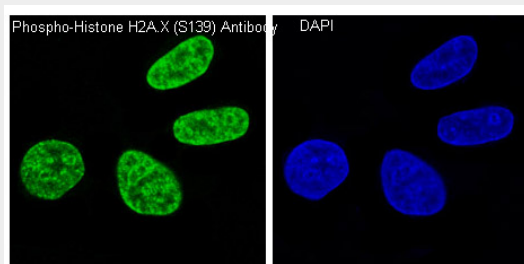
Nucleus. Chromosome

**Anti-Phospho-Histone H2A.X (S139) H2AFX 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](#)

**Anti-Phospho-Histone H2A.X (S139) H2AFX Monoclonal Antibody - Images**



Immunofluorescent analysis of HeLa cells treated with H2O2, using Phospho-Histone H2A.X (S139) Antibody.

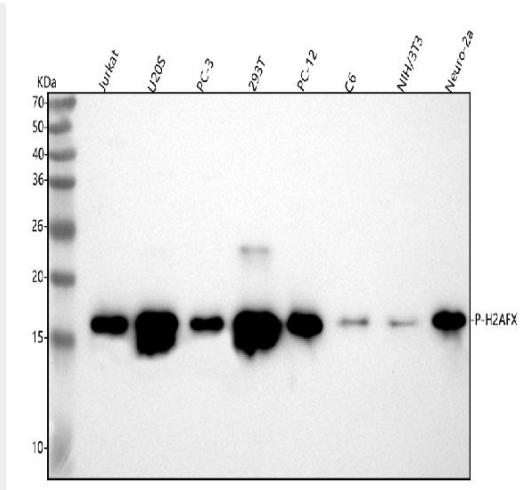


Figure 1. Western blot analysis of HistoneH2A.X using anti-HistoneH2A.X antibody (MP00241). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Jurkat whole cell lysates,

Lane 2: human U20S whole cell lysates,

Lane 3: human PC-3 whole cell lysates,

Lane 4: human 293T whole cell lysates,

Lane 5: rat PC-12 whole cell lysates,

Lane 6: rat C6 whole cell lysates,

Lane 7: mouse NIH/3T3 whole cell lysates,

Lane 8: mouse Neuro-2a whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-HistoneH2A.X antigen affinity purified monoclonal antibody (Catalog # MP00241) at 1:5000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:1000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for HistoneH2A.X at approximately 15 kDa. The expected band size for HistoneH2A.X is at 15 kDa.

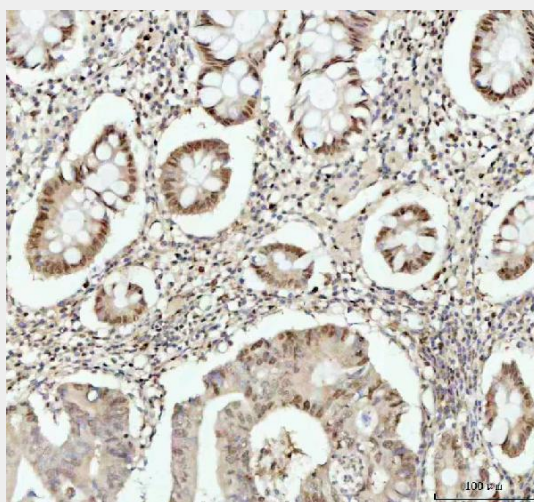


Figure 2. IHC analysis of HistoneH2A.X using anti-HistoneH2A.X antibody (MP00241). HistoneH2A.X was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval

solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-HistoneH2A.X Antibody (MP00241) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

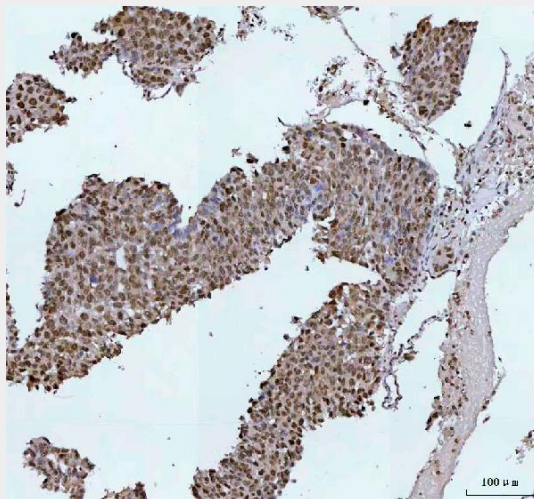


Figure 3. IHC analysis of HistoneH2A.X using anti-HistoneH2A.X antibody (MP00241). HistoneH2A.X was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-HistoneH2A.X Antibody (MP00241) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

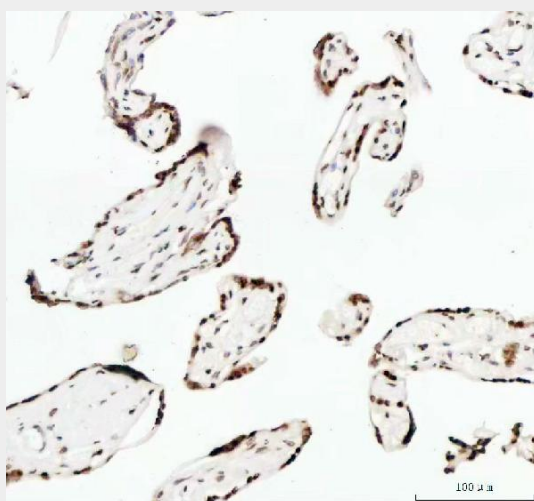


Figure 4. IHC analysis of HistoneH2A.X using anti-HistoneH2A.X antibody (MP00241). HistoneH2A.X was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-HistoneH2A.X Antibody (MP00241) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

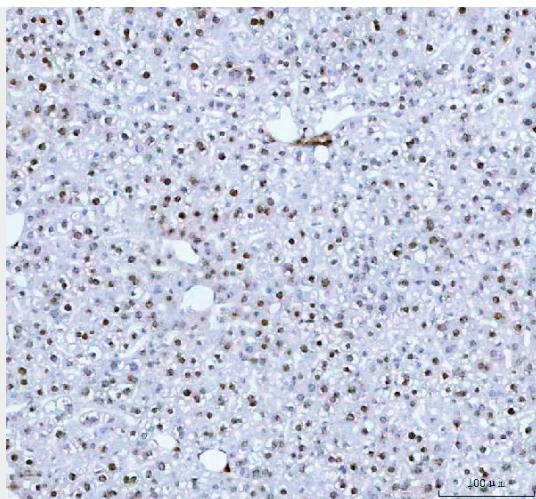


Figure 5. IHC analysis of HistoneH2A.X using anti-HistoneH2A.X antibody (MP00241). HistoneH2A.X was detected in a paraffin-embedded section of mouse liver tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-HistoneH2A.X Antibody (MP00241) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.