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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	P16104
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 (HGNC:4739)

Calculated MW
15 kDa KDa

Application Details
WB 1:5000-1:10000
IHC 1:50-1:200
ICC/IF 1:50-1:200
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.

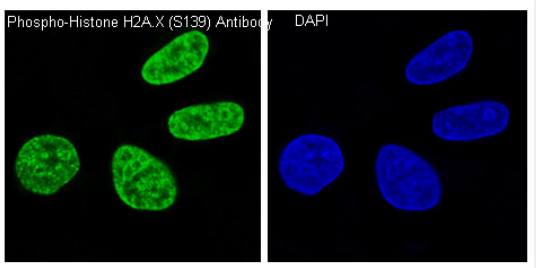
Cellular Location
Nucleus. Chromosome

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 Cytomety
- 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.

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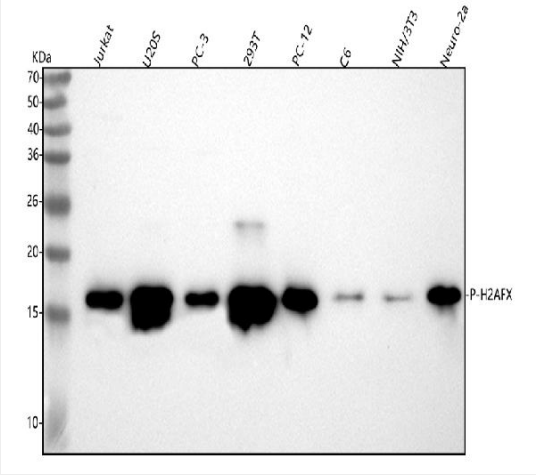

Figure 1. Western blot analysis of HistoneH2A.X using anti-HistoneH2A.X antibody (MP00241). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: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

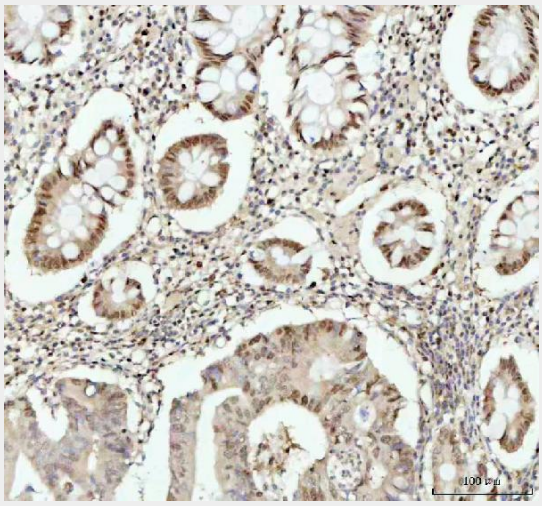

Figure 2. IHC analysis of HistoneH2A.X using anti-HistoneH2A.X antibody (MP00241). HistoneH2A.X was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval

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.

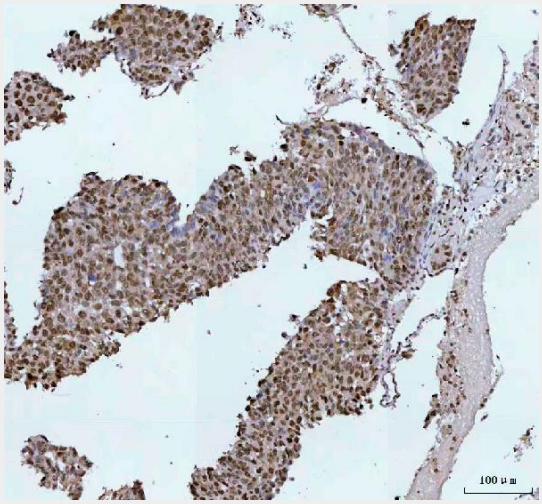

Figure 3. IHC analysis of HistoneH2A.X using anti-HistoneH2A.X antibody (MP00241).
HistoneH2A.X was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 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.

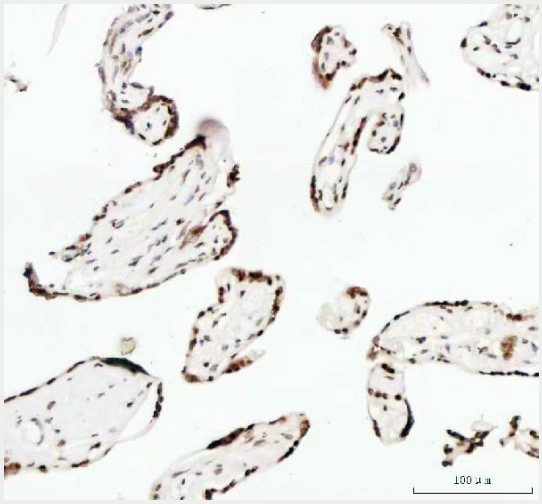

Figure 4. IHC analysis of HistoneH2A.X using anti-HistoneH2A.X antibody (MP00241).
HistoneH2A.X was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 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.

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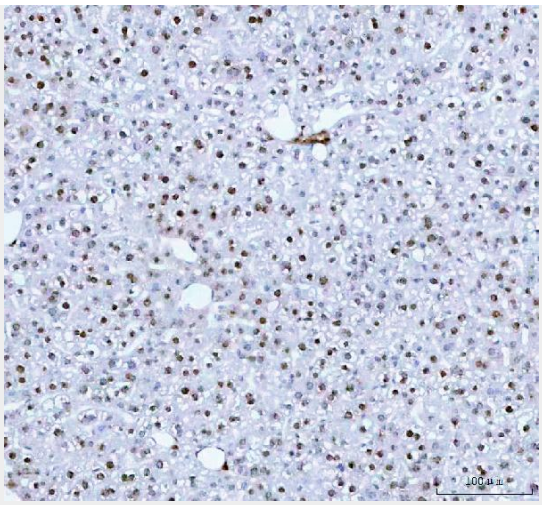

Figure 5. IHC analysis of HistoneH2A.X using anti-HistoneH2A.X antibody (MP00241). HistoneH2A.X was detected in a paraffin-embedded section of mouse liver tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% 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.