

H2AFX / H2AX Antibody (Ser139) Rabbit Polyclonal Antibody Catalog # ALS11769

### Specification

## H2AFX / H2AX Antibody (Ser139) - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW IF, IHC <u>P16104</u> Human, Mouse, Rat Rabbit Polyclonal 15kDa KDa

### H2AFX / H2AX Antibody (Ser139) - Additional Information

Gene ID 3014

Other Names Histone H2AX, H2a/x, Histone H2A.X, H2AFX, H2AX

Target/Specificity Amino acids surrounding Ser 139 of human H2AFX

**Reconstitution & Storage** +4°C or -20°C, Avoid repeated freezing and thawing.

**Precautions** H2AFX / H2AX Antibody (Ser139) is for research use only and not for use in diagnostic or therapeutic procedures.

### H2AFX / H2AX Antibody (Ser139) - 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

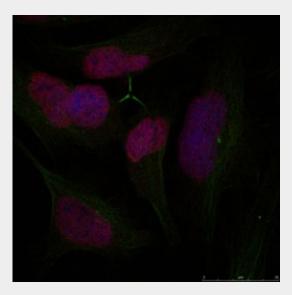


# H2AFX / H2AX Antibody (Ser139) - Protocols

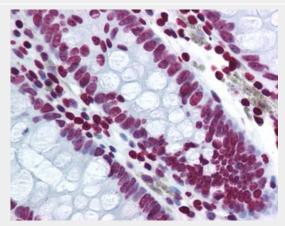
Provided below are standard protocols that you may find useful for product applications.

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

### H2AFX / H2AX Antibody (Ser139) - Images

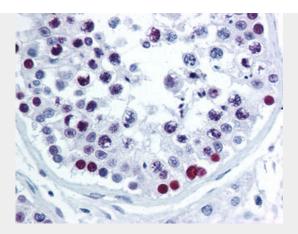


Immunofluorescence staining of methanol-fixed HeLa cells using Histone H2A.X(Ab-139) antibody.



Anti-H2AX antibody IHC of human colon.





Anti-H2AX antibody IHC of human testis.

## H2AFX / H2AX Antibody (Ser139) - 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.

## H2AFX / H2AX Antibody (Ser139) - 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).