

H2AFX Antibody (N-term)

Mouse Monoclonal Antibody (Mab) Catalog # AM2202b

#### Specification

# H2AFX Antibody (N-term) - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Isotype Calculated MW Antigen Region IHC-P, WB,E <u>P16104</u> <u>P27661</u>, <u>O7ZUY3</u> Human Zebrafish, Mouse Mouse Monoclonal IgG1 15145 1-30

#### H2AFX Antibody (N-term) - Additional Information

Gene ID 3014

Other Names Histone H2AX, H2a/x, Histone H2AX, H2AFX, H2AX

**Target/Specificity** 

This H2AFX antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human H2AFX.

**Dilution** IHC-P~~1:25 WB~~1:1000 E~~Use at an assay dependent concentration.

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

H2AFX Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## H2AFX Antibody (N-term) - Protein Information

Name H2AX (<u>HGNC:4739</u>)



**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.

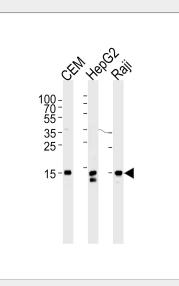
**Cellular Location** Nucleus. Chromosome

## H2AFX Antibody (N-term) - Protocols

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

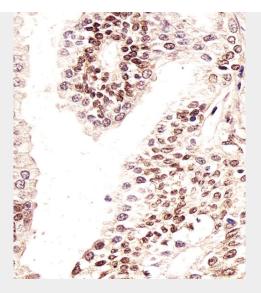
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

#### H2AFX Antibody (N-term) - Images



H2AFX Antibody (N-term) (Cat. #AM2202b) western blot analysis in CEM,HepG2,Raji cell line lysates (35µg/lane).This demonstrates the H2AFX antibody detected the H2AFX protein (arrow).





Immunohistochemical analysis of paraffin-embedded H. prostate section using H2AFX Antibody (N-term)(Cat#AM2202b). AM2202b was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.

# H2AFX Antibody (N-term) - 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 Antibody (N-term) - References

Stewart G.S., et al. Nature 421:961-966(2003). Park E.-J., et al. Nucleic Acids Res. 31:6819-6827(2003). Stiff T., et al. Cancer Res. 64:2390-2396(2004). Lukas C., et al. EMBO J. 23:2674-2683(2004). Kurz E.U., et al. J. Biol. Chem. 279:53272-53281(2004).