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# H2AFX Antibody (N-term)

Mouse Monoclonal Antibody (Mab)
Catalog # AM2202b

## Product Information

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|---|---|
| **Application** | WB, IHC-P, E |
| **Primary Accession** | P16104 |
| **Other Accession** | P27661, Q7ZUY3 |
| **Reactivity** | Human |
| **Predicted** | Zebrafish, Mouse, Rat, Bovine, Canine, Rabbit, Chicken |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | IgG1 |
| **Clone Names** | 980CT1.5.5 |
| **Calculated MW** | 15145 |
| **Antigen Region** | 1-30 |

## Additional Information

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| **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** | WB~~1:1000 IHC-P~~1:100~500 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. |

## Protein Information

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|---|---|
| **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

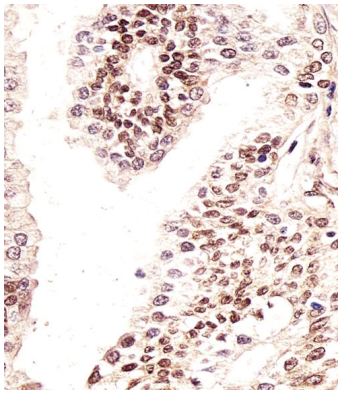
## Background

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.

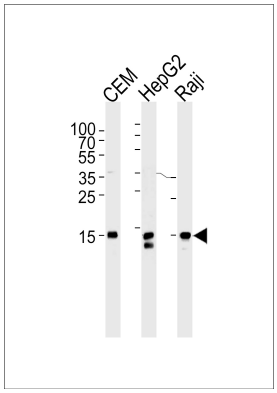
## References

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).

## Images



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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.