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H2AFX Antibody (N-term)

Mouse Monoclonal Antibody (Mab)
Catalog # AM2202b

Product Information

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

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	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

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

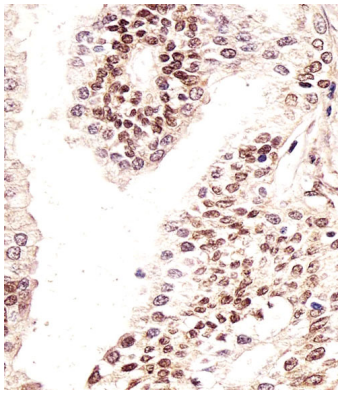
Background

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.

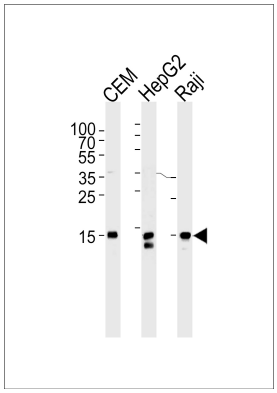
References

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).