10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

H2AFX Antibody (C-term)

Mouse Monoclonal Antibody (Mab)
Catalog # AM2199B

Product Information

Application	WB, IHC-P, E
Primary Accession	P16104
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine, Rabbit
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Clone Names	938CT5.1.1
Calculated MW	15145
Antigen Region	115-143

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 115-143 amino acids from the C-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 (C-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

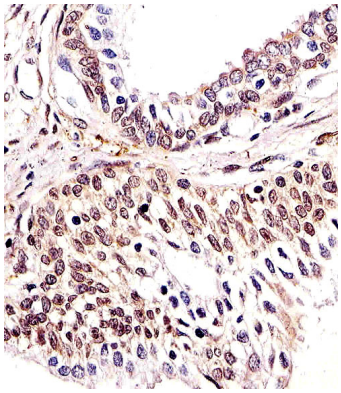
Background

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.

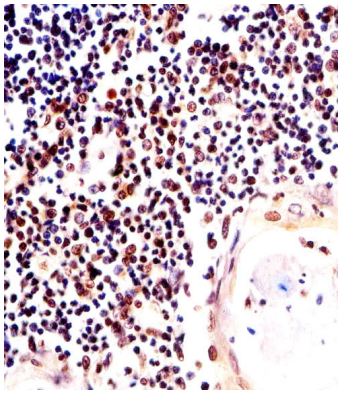
References

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

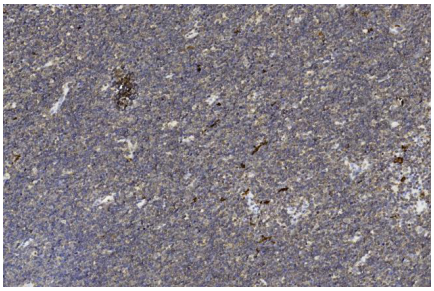


Immunohistochemical analysis of paraffin-embedded H. prostate section using H2AFX Antibody (C-term)(Cat#AM2199b). AM2199b was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.

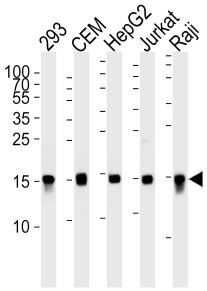


Immunohistochemical analysis of paraffin-embedded H. thymus section using H2AFX Antibody (C-term)(Cat#AM2199b). AM2199b was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.

Immunohistochemical analysis of paraffin-embedded



Human Thymus section using Pink1(Cat#am2199b). am2199b was diluted at 1:50 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



Western blot analysis of lysates from 293, CEM, HepG2, Jurkat, Raji cell line (from left to right), using H2AFX Antibody (C-term)(Cat. #AM2199b). AM2199b was diluted at 1:1000 at each lane. A goat anti-mouse IgG H&L(HRP) at 1:3000 dilution was used as the secondary antibody. Lysates at 35µg per lane.

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