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

H2AFX Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13716b

Product Information

Application	WB, IHC-P, E
Primary Accession	P16104
Other Accession	NP_002096.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB33675
Calculated MW	15145
Antigen Region	111-140

Additional Information

Gene ID	3014
Other Names	Histone H2AX, H2a/x, Histone H2AX, H2AFX, H2AX
Target/Specificity	This H2AFX antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 111-140 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 polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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

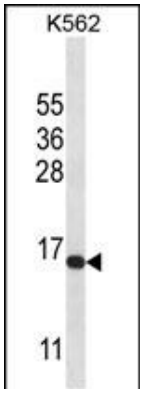
Background

Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. Two molecules of each of the four core histones (H2A, H2B, H3, and H4) form an octamer, around which approximately 146 bp of DNA is wrapped in repeating units, called nucleosomes. The linker histone, H1, interacts with linker DNA between nucleosomes and functions in the compaction of chromatin into higher order structures. This gene encodes a member of the histone H2A family, and generates two transcripts through the use of the conserved stem-loop termination motif, and the polyA addition motif.

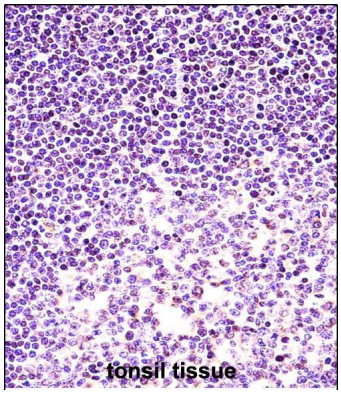
References

Roch-Lefevre, S., et al. Radiat. Res. 174(2):185-194(2010)
Schmid, T.E., et al. Int. J. Radiat. Biol. 86(8):682-691(2010)
Jiang, X., et al. FEBS Lett. 584(13):2926-2930(2010)
Vasireddy, R.S., et al. Br. J. Cancer 102(10):1511-1518(2010)
Ikeda, M., et al. Int. J. Oncol. 36(5):1081-1088(2010)

Images



H2AFX Antibody (C-term) (Cat. #AP13716b) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the H2AFX antibody detected the H2AFX protein (arrow).



H2AFX Antibody (C-term) (Cat. #AP13716b)immunohistochemistry analysis in formalin fixed and paraffin embedded human tonsil tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of H2AFX Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.