

## H2AFX Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP13716b

### Product Information

---

<b>Application</b>	WB, IHC-P, E
<b>Primary Accession</b>	<a href="#">P16104</a>
<b>Other Accession</b>	<a href="#">NP_002096.1</a>
<b>Reactivity</b>	Human
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB33675
<b>Calculated MW</b>	15145
<b>Antigen Region</b>	111-140

### Additional Information

---

<b>Gene ID</b>	3014
<b>Other Names</b>	Histone H2AX, H2a/x, Histone H2AX, H2AFX, H2AX
<b>Target/Specificity</b>	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.
<b>Dilution</b>	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	H2AFX Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### Protein Information

---

<b>Name</b>	H2AX ( <a href="#">HGNC:4739</a> )
<b>Function</b>	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

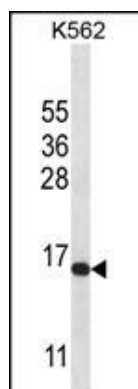
## Background

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.

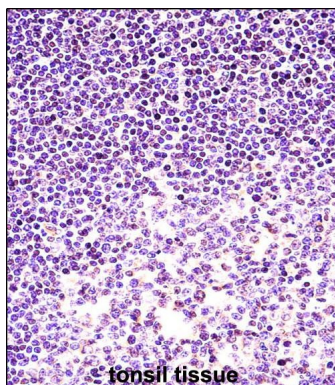
## References

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.

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