

## Histone H2A.X antibody (pAb)

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**Catalog Nos:** 39689, 39690

**RRID:** AB\_2728764

**Isotype:** IgG

**Application(s):** ChIP, ICC, IF, WB

**Reactivity:** Human

**Volumes:** 100 µl, 10 µl

**Purification:** Affinity Purified

**Host:** Rabbit

**Molecular Weight:** 15 kDa

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**Background:** Histone H2AX (H2AX, H2A histone family member X) replaces conventional H2A in a subset of nucleosomes. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries that require DNA as a template. Histones thereby play a central role in transcriptional regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called the histone code, and nucleosome remodeling. Histone H2AX is 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.

**Immunogen:** This Histone H2AX antibody was raised against a peptide derived from the C-terminus of human histone H2AX.

**Buffer:** Purified IgG in 70 mM Tris (pH 8), 105 mM NaCl, 31 mM glycine, 0.07 mM EDTA, 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

**Application Notes:**

Applications Validated by Active Motif:

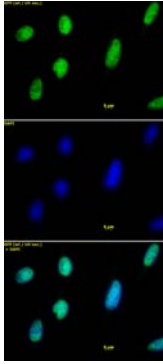
ICC/IF: 1:500 - 1:1,000 dilution

WB\*: 1:500 - 1:2,000 dilution

\*Note: many chromatin-bound proteins are not soluble in a low salt nuclear extract and fractionate to the pellet. Therefore, we recommend a High Salt / Sonication Protocol when preparing nuclear extracts for Western blot.

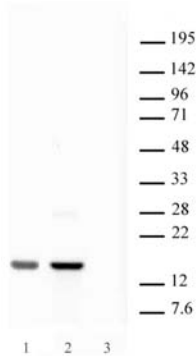
**Storage and Guarantee:** Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



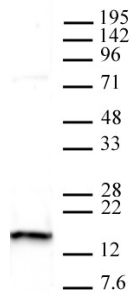
**Histone H2AX antibody tested by immunofluorescence.**

Detection of Histone H2AX by immunofluorescence. HeLa cells were stained with Histone H2AX antibody at a dilution of 1:1,000. Top panel: Histone H2AX antibody staining. Middle panel: DAPI. Bottom panel: merge.



**Histone H2AX pAb tested by Western blot.**

Western blot probed with Histone H2AX pAb at a dilution of 1:2,000. Lane 1: Recombinant human histone H2AX (100 ng). Lane 2: Mouse embryonic fibroblast (MEF) cell wild type nuclear lysate. Lane 3: MEF cell nuclear extract derived from H2AX -/- nulls.



**Histone H2AX pAb tested by Western blot.**

30 µg of HeLa cell nuclear extract was probed with Histone H2AX pAb at a dilution of 1:2,000.