

# Phospho-Histone H2A.X (Ser139) (1B3) rabbit mAb

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## #2196

Store at: -20°C

**For Research Use Only. Not For Use In Diagnostic Procedures.**

Applications	Detection	Clonality	Isotype
Flow Cytometry, WB	Anti-Rabbit IgG	Monoclonal	Rabbit IgGk

**Format:** Unconjugated

**Cross Reactivity:** Predicted to work with mouse, rat, and other homologues.

**Formulation:** 1X PBS, 0.02% NaN<sub>3</sub>, 50% Glycerol, 0.1% BSA

**Preparation:** Protein A+G

**Reactivity:** Human, Mouse

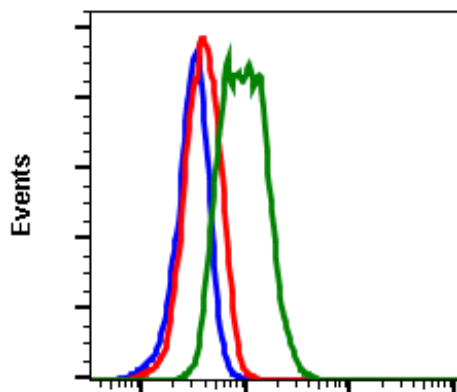
### Recommended

**Usage:** 1µg/mL ? 0.001µg/mL. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.

**Immunogen:** A synthetic phospho-peptide corresponding to residues surrounding Ser139 of human phospho histone H2A.X.

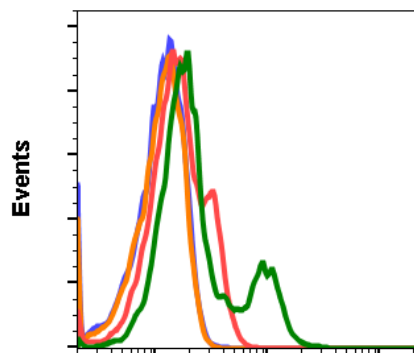
**Description:** Histone H2AX is a variant of the nucleosome core histone H2A and is phosphorylated at Ser139 in response to DNA damage. Histone H2AX phosphorylation is considered a specific reporter of double-strand DNA breaks. The protein is also referred to as γH2AX when phosphorylated at Ser139. H2AX phosphorylation is especially strong in response to double-strand breaks formed during apoptosis. However, physiological phosphorylation of Histone H2AX occurs when double-strand DNA breaks are formed during meiosis and V(D)J recombination. A549 and DU145 cell lines have been found to have higher expression levels of phosphorylated Histone H2AX compared to Jurkat, MCF-7, or HL-60 cell lines.

**References:** Tanaka T, Halicka D, Huang X, et al. (2006) Cell Cycle. 5: 1940-1945.



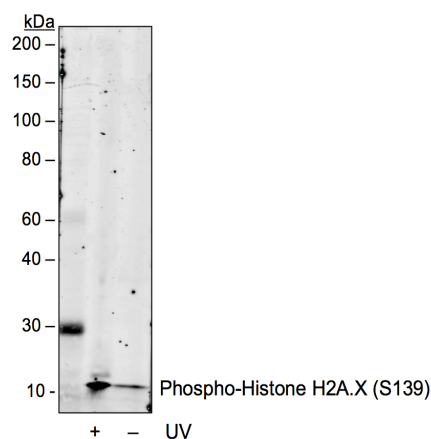
**Phospho Histone H2A.X (S139)**

Flow cytometric analysis of C2C12 cells secondary antibody only (blue) untreated (red) or UV and PMA-treated (green) using phospho-Histone H2A.X (Ser139) antibody HisH2AXS139-1B3 at 0.1 ug/mL Cat. #2196.

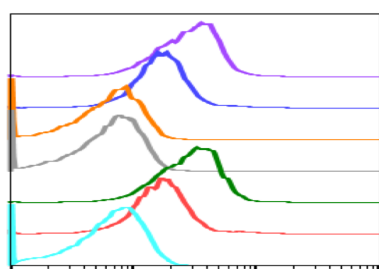


**Phospho-Histone H2A.X (S139)**

Flow cytometric analysis of 3T3 cells secondary antibody only (blue) or untreated with 0.1 µg/mL of isotype control Cat. #2141 (orange) or untreated (red) or UV and PMA-treated (green) using phospho-Histone H2A.X (Ser139) antibody HisH2AXS139-1B3 Cat. #2196.

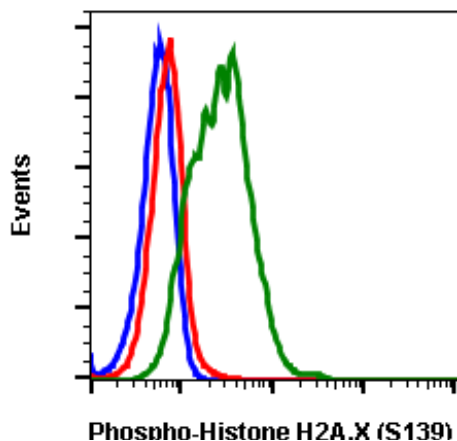


Western blot analysis of 293T cell extract untreated or treated with UV using 0.05 ug/mL Phospho-Histone H2A.X(Ser139) antibody HisH2AXS139-1B3. Cat. #2196.

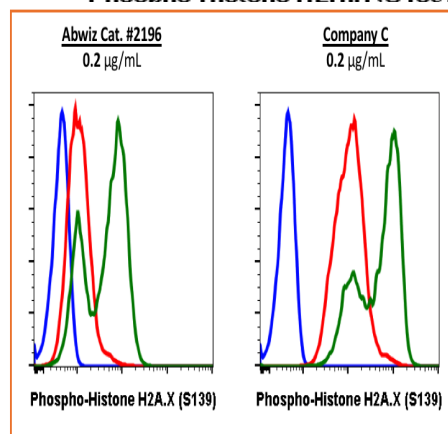


Peptide blocking flow cytometric analysis of 293T cells secondary antibody only negative control (blue) or untreated (red) or treated with UV and PMA (green) or untreated and blocked with phospho-peptide (gray) or treated and blocked with phospho peptide (orange) or untreated and blocked with non-phospho peptide (dark blue) or treated and blocked with non-phospho peptide (purple) using Phospho-Histone H2A.X (Ser139) antibody HisH2AXS139-1B3 at 0.1 µg/mL. Cat. #2196.

SampleID	Count	Median : BL1-A
UV 1B3 NP	7110	2877
Ctrl 1B3 NP	11503	1662
UV 1B3 P	7239	645
Ctrl 1B3 P	11129	651
UV 1B3	6103	2930
Ctrl 1B3	11310	1659
Ctrl 2' only	22467	655



Flow cytometric analysis of 293T cells secondary antibody only negative control (blue) or untreated (red) or treated with UV and TPA (green) using Phospho-Histone H2A.X (Ser139) antibody HisH2AXS139-1B3 at 0.05  $\mu\text{g/mL}$ . Cat. #2196.



Flow cytometric analysis of 293T cells, secondary antibody only negative control (blue) or untreated (red) or treated with UV + TPA (green) using Phospho-Histone H2A.X (S139) antibody HisH2AXS139-1B3 (Abwiz Cat. #2196) or Company C antibody at 0.2  $\mu\text{g/mL}$  (manufacturer's recommended concentration).