Product Data Sheet

Purified anti-H2A.X-Phosphorylated (Ser139)

Catalog #/ Size: 613401 / 25 µg
613402 / 100 µg

Clone: 2F3

Isotype: Mouse IgG2b, κ

Immunogen: Modified peptide (KATQAS*QEY)

Reactivity: Human, reacts with Ser139-phosphorylated H2A.X

Preparation: The antibody was purified by protein G affinity chromatography.

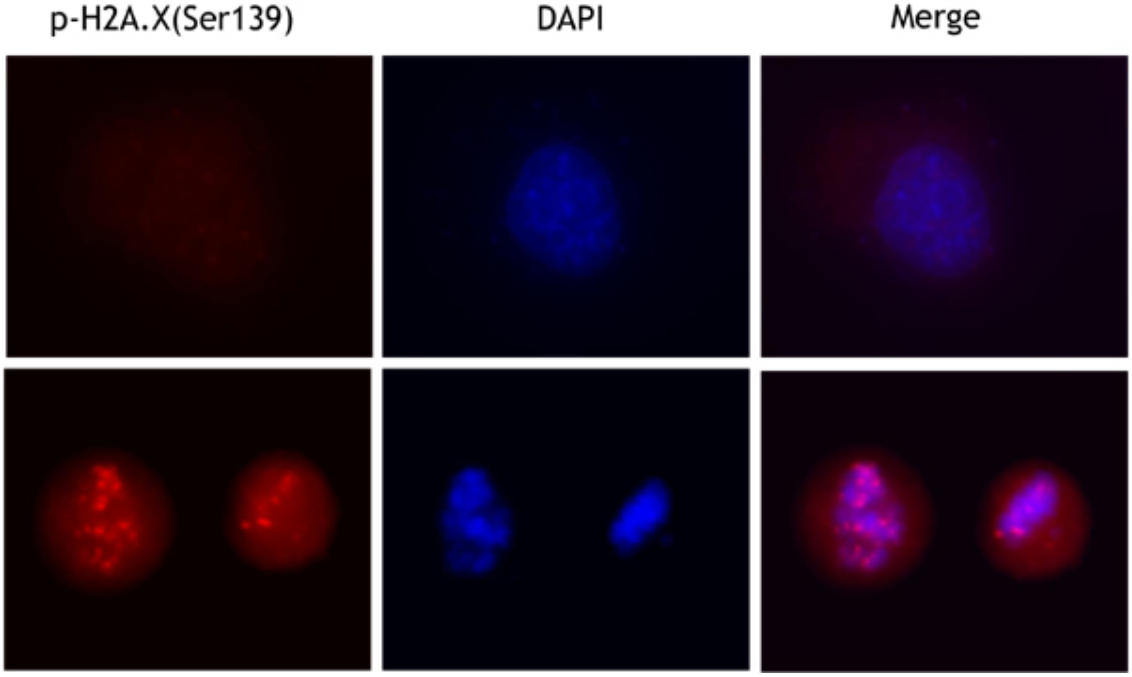
Formulation: This antibody is provided in phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide. Final antibody concentration is 0.5 mg/ml.

Storage: Upon receipt, store at 4°C.

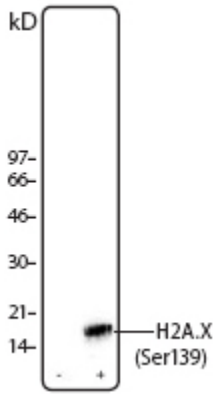
Applications

Applications: WB, IF

Recommended Usage: Each lot of this antibody is quality control tested by Western blotting. Western blotting, suggested working dilution(s): Use 5 µg per 5 ml antibody dilution buffer for each mini-gel. For immunofluorescence microscopy: Use a dilution range of 1~4 µg/ml. It is recommended that the reagent be titrated for optimal performance for each application.



Untreated Hela cells (Upper Panel), or overnight nocodazole treated Hela cells (Lower Panel) stained with purified mouse monoclonal antibody against Ser139 phosphorylated H2A.X, followed by Rhodamine Red-X conjugated Donkey anti-mouse IgG and DAPI.



Untreated (Lane 1) and staurosporine-treated (Lane 2) Jurkat nuclear extract was resolved by electrophoresis, transferred to nitrocellulose and probed with anti-phospho-H2A.X (Ser 139) antibody. Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and a chemiluminescence system.

Antigen Information

Other Names: H2A.x, H2a/x, Histone 2A, Histone 2A.X

Structure: Basal histone, H2 histone family; 14 kD

Distribution: Nuclear

Function: Phosphorylated H2AX promotes DNA repair and maintains genomic stability. Important for recombination between immunoglobulin switch regions

Regulation: Synthesized in G1 and S-phase of cell cycle

Modification: Phosphorylation on Ser139 after double-stranded DNA breaks

Description: H2A.X is a 14 kD basal histone and a member of the H2 histone family. This nuclear protein is synthesized in the G1 and S phase of the cell cycle and is known to be important for recombination between immunoglobulin switch regions. H2A.X becomes phosphorylated on serine 139 after double-stranded DNA breaks. Phosphorylated H2A.X promotes DNA repair and maintains genomic stability. The 2F3 monoclonal antibody reacts with phosphorylated human H2A.X (Ser139) and has been shown to be useful for Western blotting and immunofluorescence.

Antigen References:

1. Mannironi, C., *et al.*,1989. *Nucleic Acids Res.* 17:9113.
2. Celeste, A., *et al.*, 2002. *Science* 296:922.
3. Bassing, C. H., *et al.*, 2002. *Proc. Natl. Acad. Sci. USA* 99:8173.
4. Reina-San-Martin, B., *et al.*, 2003. *J. Exp. Med.* 197:1767.