H2AFX

Mouse Anti-Human H2A Histone Family member X Phospho-Ser139 Clone 2F3 FITC mAb

Catalog No.	CSI14355 CSI14356	**Quantity:**	25 tests 100 tests

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

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.

Structure: Basal histone, H2 histone family; 14 kD.

Gene ID: 3014

Distribution: Nuclear

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

Host: Mouse

Immunogen: Modified peptide

Isotype: IgG1, κ

Clone: 2F3

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

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA). **Precaution:** Sodium azide is a poisonous and hazardous substance which should be handled by trained staff only.

Purification: The antibody was purified by affinity chromatography, and conjugated with FITC under optimal conditions. The solution is free of unconjugated FITC.

Modification: Phosphorylation on Ser139 after double-stranded DNA breaks.

Reactivity: Human

Applications: ICFC, IF

Cell Sciences®
480 Neponset Street
Bldg 12A
Canton, MA 02021

Toll Free: 888-769-1246
Phone: 781-828-0610
Fax: 781-828-0542

E-mail: info@cellsciences.com
Website: www.cellsciences.com

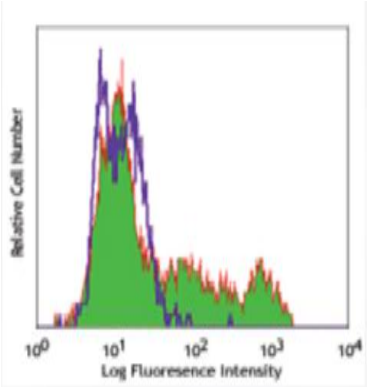
Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. Test size products are transitioning from 20 µl to 5 µl per test. Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 µl staining volume or per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Storage & Stability: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**

Application Notes: Intracellular staining protocol for Anti-H2A.X-Phosphorylated (Ser139) Antibody for Flow Cytometry

1. Prepare 70% absolute ethanol. Chill solution by storing at -20C.
2. Prepare cells of interest.
3. Wash 1X: resuspend with PBS, then pellet cells by centrifugation (250Xg, 5min)
4. Discard the supernatant and vortex to loosen cell pellet.
5. Add pre-cooled 70% ethanol drop by drop, while vortexing.
6. Incubate at -20°C for 60 minutes.
7. Wash 3X with Cell Staining Buffer and resuspend the cells at 0.5-1 X 10^7/ml in the cell staining buffer.
8. Perform immunofluorescent staining.

Staurosporine-treated (37oC, 4 hours) (filled green histogram) or non-treated Molt-4 cells (opened purple histogram) stained with 2F3 FITC



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