

Product Data Sheet

FITC anti-H2A.X-Phosphorylated (Ser139)

Catalog # / Size: 613403 / 25 tests
613404 / 100 tests

Clone: 2F3

Isotype: Mouse IgG1, κ

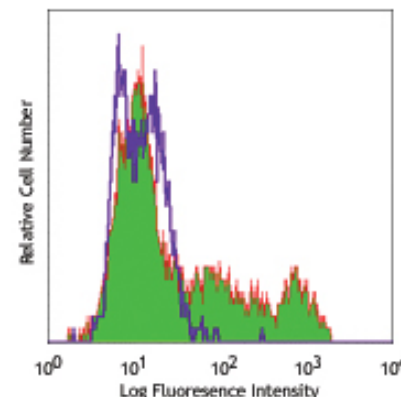
Immunogen: Modified peptide

Reactivity: Human

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

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

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



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

Applications:

Applications: ICFC - *Quality tested*
IF - *Reported in the literature*

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent intracellular staining with flow cytometric analysis. **Test size products are transitioning from 20 μ l to 5 μ l per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 μ l staining volume or per 100 μ l of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. Read more at www.biolegend.com/testsize regarding the test size change.

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 -20°C.
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 BioLegend Cell Staining Buffer and resuspend the cells at $0.5-1 \times 10^6$ /ml in the cell staining buffer.
8. Perform immunofluorescent staining. **Additional reported applications (for the relevant formats of this clone) include:** immunohistochemistry on paraffin embedded sections², immunofluorescence microscopy³⁻⁹, western blot¹⁰⁻¹², and flow cytometry^{1,13}.

- Application References:**
1. Moiseenko V, *et al.* 2008 *Radiat Oncol* 3:18 (FC)
 2. Akbay A, *et al.* 2008. *Am J Pathol.* 173:536. (IHC) PubMed
 3. Mochizuki K, *et al.* 2008. *J cell Sci.* 121:2148. (IF) PubMed
 4. Xiao R, *et al.* 2007. *Mol Cell Biol.* 27:5393. (IF) PubMed
 5. Rossi DJ, *et al.* 2007. *Nature.* 447:725. (IF) PubMed
 6. Loidl J, *et al.* 2009. *Mol Cell Biol.* 20:2048. (IF) PubMed
 7. Beels L, *et al.* 2009. *Circulation.* 120:1903. (IF) PubMed
 8. Suzuki K, *et al.* 2010. *Nucleic Acids Res.* 38:e129. (IF) PubMed
 9. Lukaszewicz A. 2010. *Chromasoma* Apr 27. [Epub ahead of print] (IF) PubMed
 10. Yamada C, *et al.* 2010 *J. Biol. Chem.* 285:16693. (WB) PubMed
 11. Bu Y, *et al.* 2010, *Biochem Biophys Res Commun.* 397:157. (WB) PubMed
 12. Massignan T, *et al.* 2010. *J. Biol Chem.* 285:7752. (WB) PubMed
 13. Banath JP, *et al.* 2010. *BMC Cancer* 10:4 (FC)
 14. Zhang M., *et al.* 2011. *Cancer Res.* 23:7155. PubMed.
 15. Smart DJ, *et al.* 2012. *Mutagenesis.* 27:359. PubMed.

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.



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3. Bassing CH, *et al.* 2002. *Proc. Natl. Acad. Sci. USA* 99:8173.
4. Reina-San-Martin B, *et al.* 2003. *J. Exp. Med.* 197:1767.

Related Products:	Product	Clone	Application
	FITC Mouse IgG2b, κ Isotype Ctrl	MPC-11	FC, ICFC
	Cell Staining Buffer		FC, ICC, ICFC



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