

DATASHEET

Histone H2A.X (Phospho-S139) Mouse Monoclonal Antibody(C3491)

CAT. NO. AMA03103

KEY FEATURES

Target	Histone H2A.X (Phospho-S139)	Source / Host	Mouse
Reactivity	Human, Mouse	Clonality	Monoclonal
Applications	WB, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.	Storage	at-20°C

BACKGROUND

Variant histone H2A which replaces conventional H2A in a subset of nucleosomes. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and nucleosome remodeling. 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.

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IF/ICC	1:50 - 1:100

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Mouse monoclonal antibody to Histone H2A.X (Phospho-S139)
Specificity	Recognizes endogenous levels of Histone H2A.X protein only when phosphorylated at S139.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic phosphopeptide corresponding to residues surrounding S139 of human Histone H2A.X protein. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 15 kD; Observed: 15 kD
Form/Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Alternative Names	H2AX; Histone H2AX; H2a/x; Histone H2A.X
Gene Symbol	H2AX
Entrez Gene	3014(Human); 15270(Mouse)
SwissProt	P16104(Human); P27661(Mouse)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

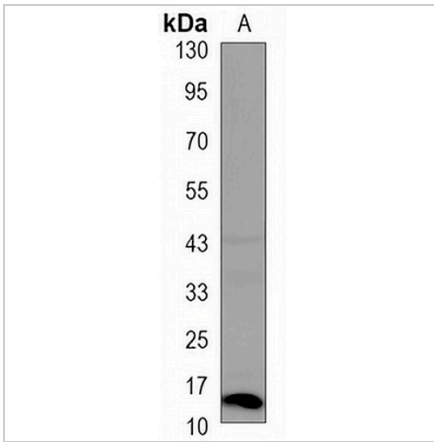
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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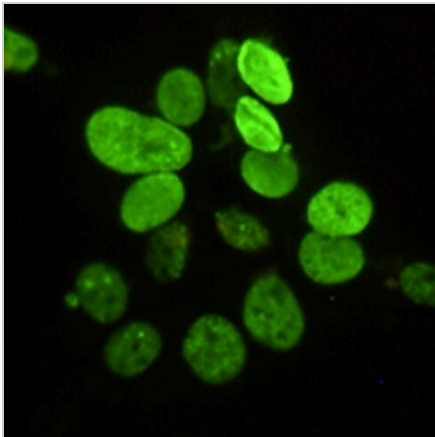
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Western blot analysis of Histone H2A.X (Phospho-S139) expression in NIH3T3 treated with Hydroxyurea (A) whole cell lysates. (Predicted band size: 15 kD; Observed band size: 15 kD)



Immunofluorescent analysis of Histone H2A.X (Phospho-S139) staining in A549 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AREX® Fluor 488 - conjugated secondary antibody (green) in PBS at room temperature in the dark.

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.