

Histone H2A.X(Phospho-Ser139) Antibody

Catalog No: #11268

Package Size: #11268-1 50ul #11268-2 100ul

Description

Product Name	Histone H2A.X(Phospho-Ser139) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Applications	WB IF
Species Reactivity	Hu
Specificity	The antibody detects endogenous level of Histone H2A.X only when phosphorylated at serine 139.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of serine 139 (Q-A-S(p)-Q-E) derived from Human Histone H2A.X.
Conjugates	Unconjugated
Target Name	Histone H2A.X
Modification	Phospho
Other Names	H2A.X; H2AFX; H2a/x; HIST5-2AX;
Accession No.	Swiss-Prot: P16104NCBI Protein: NP_002096.1
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.

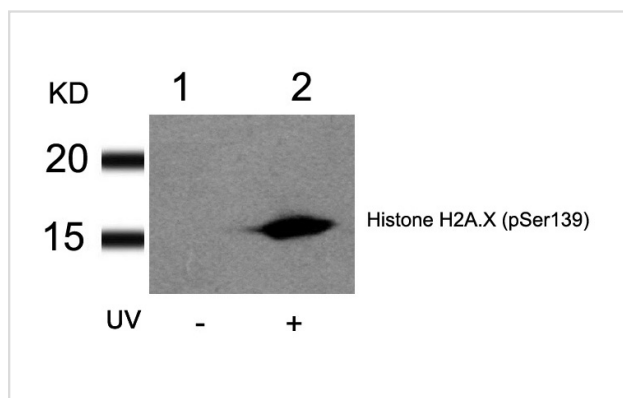
Application Details

Predicted MW: 15kd

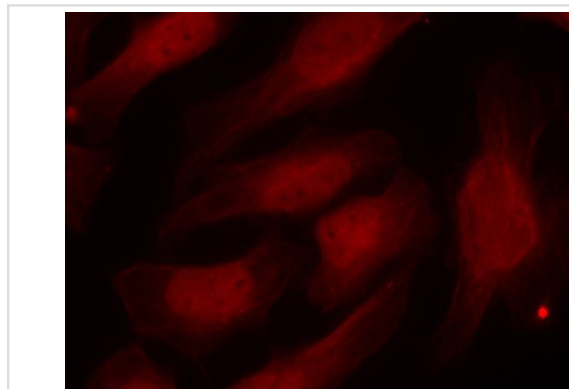
Western blotting: 1:500~1:1000

Immunofluorescence: 1:100~1:200

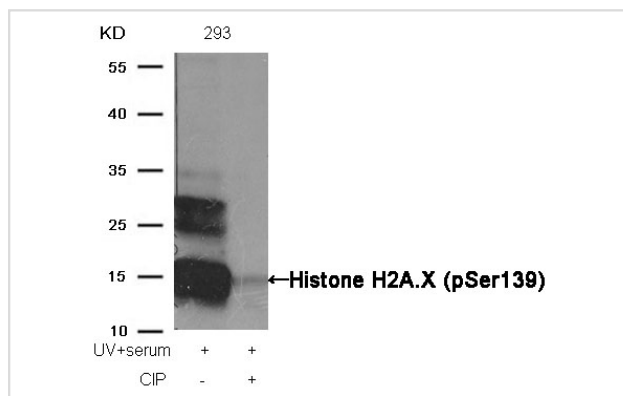
Images



Western blot analysis of extracts from HT29 cells untreated(lane 1) or treated with UV(lane 2) using Histone H2A.X(Phospho-Ser139) Antibody #11268.



Immunofluorescence staining of methanol-fixed HeLa cells using Histone H2A.X(Phospho-Ser139) Antibody #11268.



Western blot analysis of extracts from 293 cells, treated with UV+serum or calf intestinal phosphatase (CIP), using Histone H2A.X (Phospho-Ser139) Antibody #11268.

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.

Yaneva M, et al. (2005) *Nucleic Acids Res.* 33(16): 5320-5330.

Tsukuda T, et al.(2006) *Nature*. Author manuscript; available in PMC 2006 March 6.

Published Papers

Xiukun Cu, Jing Zhang, Rong Du et al., HSF4 is involved in DNA damage repair through regulation of Rad51, *Biochimica et Biophysica Acta*, 1822(8):1308-1315(2012)

[PMID:22587838](#)

et al., T2 toxin cytotoxicity mediated by directly perturbing mitochondria in human gastric epithelium GES 1 cells. *In J Appl Toxicol* on 2020 Mar 18. by Su N, Liu CL, et al.. [PMID:32187393](#), (2020)

[PMID:32187393](#)

el at., Jaridonin-induced G2/M Phase Arrest in Human Esophageal Cancer Cells Is Caused by Reactive Oxygen Species-Dependent Cdc2-tyr15 Phosphorylation via ATM-Chk1/2-Cdc25C Pathway .In Toxicol Appl Pharmacol on 2015 Jan 15 by Yong-Cheng Ma , Nan Su et al..PMID:25450480, , (2015)

[PMID:25450480](#)

Note: This product is for in vitro research use only and is not intended for use in humans or animals.