

Histone H2A.X Polyclonal Antibody

Catalog No: #21260



Package Size: #21260-1 50ul #21260-2 100ul

Orders: order@signalwayantibody.com

Support: tech@signalwayantibody.com

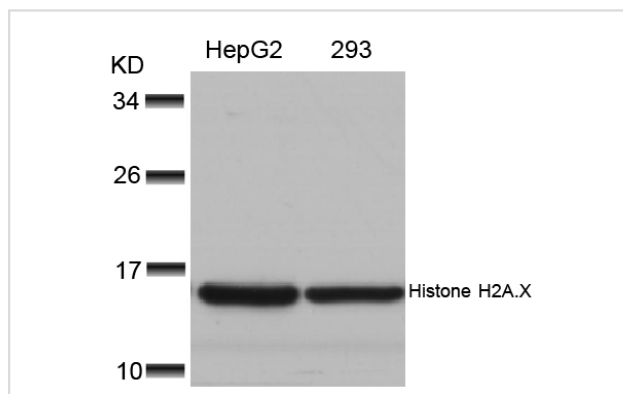
Description

Product Name	Histone H2A.X Polyclonal Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide.
Applications	WB;IHC;IF;CoIP;ELISA
Species Reactivity	Human;Mouse;Rat
Specificity	The antibody detects endogenous level of total Histone H2A.X protein.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around aa.137~141 (Q-A-S-Q-E) derived from Human Histone H2A.X.
Conjugates	Unconjugated
Target Name	Histone H2A.X
Other Names	H2A.X; H2AFX; H2a/x; HIST5-2AX;
Accession No.	Swiss-Prot: P16104NCBI Protein: NP_002096.1
Calculated MW	15kDa
SDS-PAGE MW	15-19kDa
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.

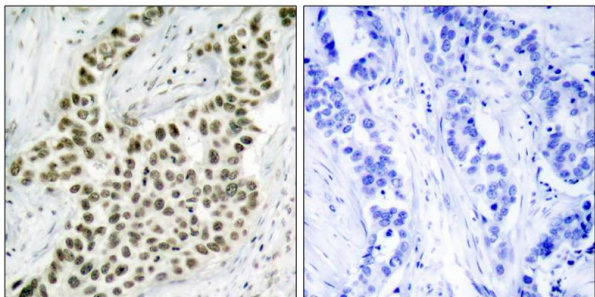
Application Details

WB 1:500-1:2000; IHC 1:100-1:300; IF 1:200-1:1000; IP 1:200-500; ELISA 1:10000

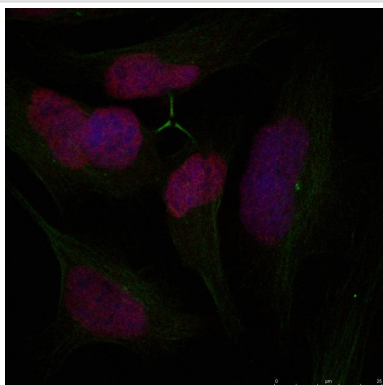
Images



Western blot analysis of extracts from HepG2 and 293 cells using Histone H2A.X(Ab-139) Antibody #21260.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using Histone H2A.X(Ab-139) Antibody #21260(left) or the same antibody preincubated with blocking peptide(right).



Immunofluorescence staining of methanol-fixed HeLa cells using Histone H2A.X(Ab-139) Antibody #21260.

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

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Published Papers

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Jennifer S. Dickey, Christophe E. Redon, Asako J. Nakamura et al., H2AX: functional roles and potential applications., *Chromosoma*, 118:683— C692(2009)

[PMID:19707781](#)

Teng Li, Jing Hu, Gong-Hao He et al., Up-regulation of NDRG2 through nuclear factor-kappa B is required for Leydig cell apoptosis in both human and murine infertile testes., *Biochimica et Biophysica Acta*, 1822(2):301— C313(2012)

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[PMID:21310648](#)

Yan Qing, Yanfang Liang, Qingqing Du et al., Apoptosis induced by trimethyltin chloride in human neuroblastoma cells SY5Y is regulated by a balance and cross-talk between NF- κ B and MAPKs signaling pathways, *Arch Toxicol*, 87(7):1273— C1285(2013)

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el at., PTEN expression in U251 glioma cells enhances their sensitivity to ionizing radiation by suppressing DNA repair capacity. In Eur Rev Med Pharmacol Sci on 2019 Dec by Li HL, Wang CY, et al..PMID:31841199, , (2019)

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el at., BASI, A Potent Small Molecular Inhibitor, Inhibits Glioblastoma Progression by Targeting microRNA ζ^{\bullet} mediated ϵ^{\sim} Y ζ atenin Signaling.In CNS Neurosci Ther on 2014 Sep by Zhen-Dong Shi , Xiao-Min Qian et al..PMID: 24810017, , (2014)

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el at., ATR activated by EB virus facilitates chemotherapy resistance to cisplatin or 5-fluorouracil in human nasopharyngeal carcinoma. In Cancer Manag Res on 2019 Jan 9 by Zhang B, Cui B, et al..PMID:30666155, , (2019)

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