Histone H2A.X 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 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
Species Reactivity	Hu
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.
Target Name	Histone H2A.X
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 Mg2+ and Ca2+), 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

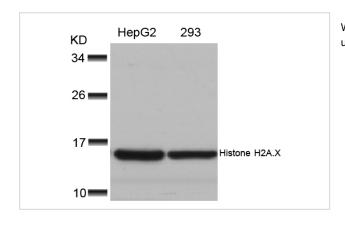
Predicted MW: 15kd

Western blotting: 1:500~1:1000

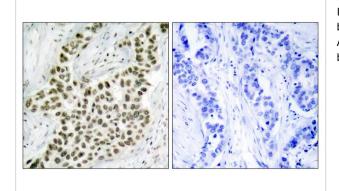
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:200

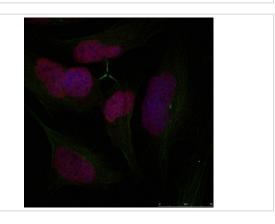
Images



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 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

Xiaohan Li, Takeshi Nishida, Akira Noguchi el at., Decreased nuclear expression and increased cytoplasmic expression of ING5 may be linked to tumorigenesis and progression in human head and neck squamous cell carcinoma, Journal of Cancer Research and Clinical Oncology, 136(10), 1573-1583(2010)

PMID:20182888

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

PMID:19707781

Teng Li, Jing Hu, Gong-Hao He el at., 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):301η— C313(2012)

PMID:22138128

Xiao-han Li, Keiji Kikuchi, Yang Zheng el at., Downregulation and translocation of nuclear ING4 is correlated with tumorigenesis and progression of head and neck squamous cell carcinoma., Oral Oncology, 47(3):217-223(2011)

PMID:21310648

Yan Qing, Yanfang Liang, Qingqing Du el at., Apoptosis induced by trimethyltin chloride in human neuroblastoma cells SY5Y is regulated by a balance and cross-talk between NF-ε" θ 'B and MAPKs signaling pathways, Arch Toxicol, 87(7):1273η— C1285(2013)

PMID:23423712

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)

PMID:31841199

el at., Nuclear Translocation of ϵ° Y-Catenin Is Essential for Glioma Cell Survival.In J Neuroimmune Pharmacol on 2012 Dec by Zhendong Shi , Xiaomin Qian, et al..PMID:, , (2012)

PMID:22415719

el at., Cytoplasmic expression of p33ING1b is correlated with tumorigenesis and progression of head and neck squamous cell carcinoma. In Histol Histopathol on 2011 May by Xiao-Han Li, Akira Noguchi, et al..PMID: 21432775, , (2011)

PMID:21432775

el at., H2AX: Functional Roles and Potential Applications. In Chromosoma on 2009 Dec by Jennifer S Dickey, Christophe E Redon, et al..PMID: 19707781, , (2009)

PMID:19707781

el at., Apoptosis induced by Trimethyltin chloride in human neuroblastoma cells SY5Y is regulated by a balance and cross-talk between NF-I-• B and MAPKs signaling pathways. In Arch Toxicol on 2013 Jul by Yan Qing, Yanfang Liang, et al..PMID: 23423712, , (2013)

PMID:23423712

el at., Anti-inflammatory mechanism of taurine against ischemic stroke is related to down-regulation of PARP and NF-I-• B. In Amino Acids on 2012 May by Ming Sun, Yumei Zhao, et al..PMID: 21409386

, , (2012)

PMID:21409386

el at., Up-regulation of NDRG2 through nuclear factor-kappa B is required for Leydig cell apoptosis in both human and murine infertile testes. In Biochim Biophys Acta on 2012 Feb by Teng Li, Jing Hu, et al..PMID:22138128, , (2012)

PMID:22138128

el at., Extracts of Zuo Jin Wan, a Traditional Chinese Medicine, Phenocopies 5-HTR1D Antagonist in Attenuating Wnt/ε°Y-catenin Signaling in Colorectal Cancer Cells.In BMC Complement Altern Med on 2017 Nov 28 by Jielu Pan, Yangxian Xu,et al..PMID: 29183322, , (2017)

PMID:29183322

el at., N-Myc Downstream-Regulated Gene 2 (Ndrg2) Is Involved in Ischemia-Hypoxia-Induced Astrocyte Apoptosis: A Novel Target for Stroke Therapy.In Mol Neurobiol on 2017 Jul by Yu-Long Ma, Li-Xia Zhang, et al..PMID:27154863, , (2017)

PMID:27154863

el at., BASI, A Potent Small Molecular Inhibitor, Inhibits Glioblastoma Progression by Targeting microRNAι ζ• ediated ε°Υι ζ atenin Signaling.In CNS Neurosci Ther on 2014 Sep by Zhen-Dong Shi , Xiao-Min Qian et al..PMID: 24810017, , (2014)

PMID:24810017

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