

Histone H2A.X(Ab-139) Antibody

Catalog No: #21260



Package Size: #21260-1 50ul #21260-2 100ul #21260-4 25ul

Orders: order@signalwayantibody.com

Support: tech@signalwayantibody.com

Description

Product Name	Histone H2A.X(Ab-139) 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 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

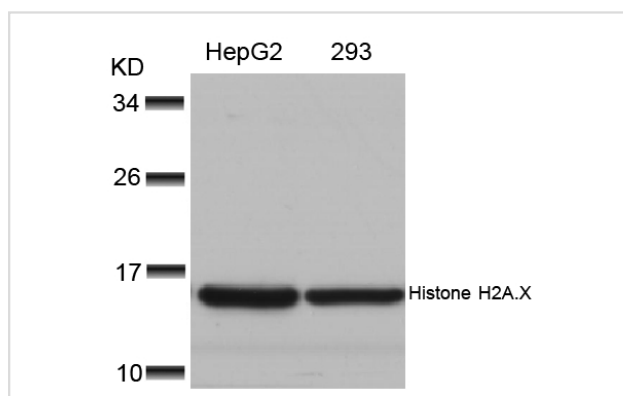
Predicted MW: 15kd

Western blotting: 1:500~1:1000

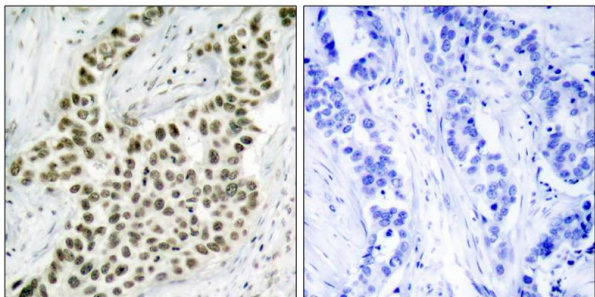
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:200

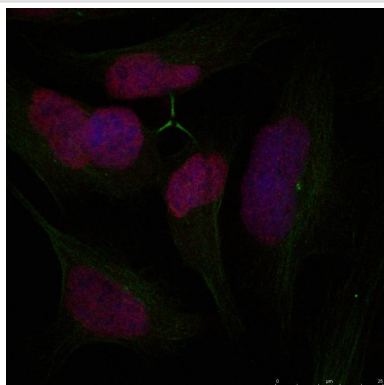
Images



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 et al., 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 et al., H2AX: functional roles and potential applications., *Chromosoma*, 118:683B"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):301B"C313(2012)

[PMID:22138128](#)

Xiao-han Li, Keiji Kikuchi, Yang Zheng et al., 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 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):1273B"C1285(2013)

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