Product Datasheet

Histone H2AX Antibody - BSA Free
NB100-638

Unit Size: 100 ul

Store at 4C. Do not freeze.

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Publications: 29

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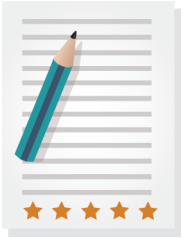
Updated 2/21/2025 v.20.1



NB100-638

Histone H2AX Antibody - BSA Free

Product Information

Unit Size	100 ul
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris-Citrate/Phosphate (pH 7.0 - 8.0)
Target Molecular Weight	15 kDa

Product Description

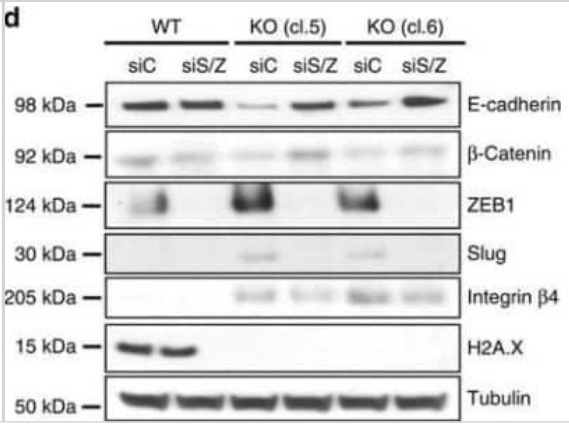
Host	Rabbit
Gene ID	3014
Gene Symbol	H2AX
Species	Human, Mouse
Immunogen	The immunogen recognized by this antibody maps to the C-terminus of human histone H2AX using the numbering given for Swiss-Prot entry P16104 (GeneID 3014).

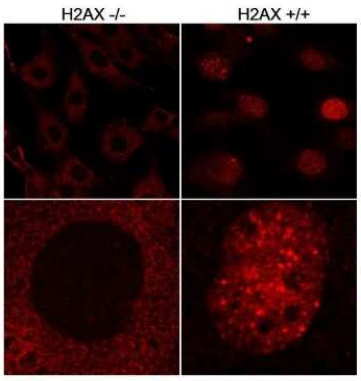
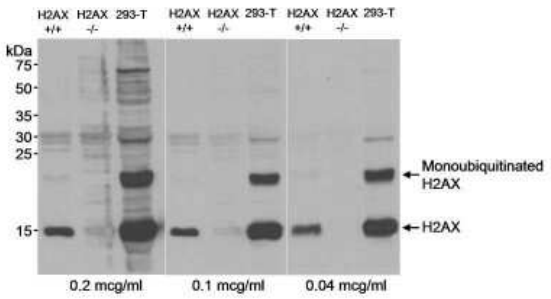
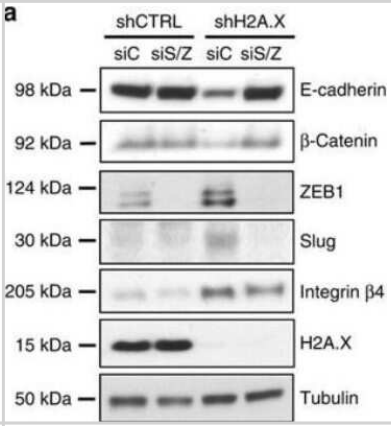
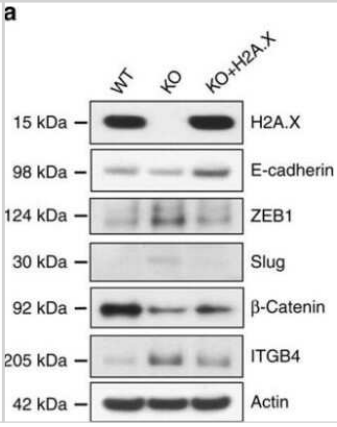
Product Application Details

Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Knockout Validated
Recommended Dilutions	Western Blot 1:5000-1:25000, Immunohistochemistry 1:400 to 1:800, Immunocytochemistry/ Immunofluorescence 1:400-1:800, Immunohistochemistry-Frozen 1:400 to 1:800, Knockout Validated
Application Notes	IHC-frozen sections was reported in scientific literature (PMID: 23759307). ICC/IFwas reported in scientific literature (PMID: 23759307).

Images

Western Blot: Histone H2AX Antibody [NB100-638] - Downregulation of the transcription factors Slug and ZEB1 reverses the EMT programme induced by H2A.X deficiency. Immunoblot analysis of EMT markers in HCT116 parental cells (WT) and H2A.X knockout cells (KO) transfected for 3 days with siRNA control (siC) or with a pool of siSLUG and siZEB1 (siS/Z) with tubulin-loading controls. H2A.X knockout cells were generated using CRISPR/Cas9 system for precise deletion of the H2A.X gene. cl.5, clone #5; and cl.6, clone #6. Image collected and cropped by CiteAb from the following publication (https://www.nature.com/doifinder/10.1038/ncomms10711), licensed under a CC-BY license.



Immunocytochemistry/Immunofluorescence: Histone H2AX Antibody [NB100-638] - Asynchronous wild-type (+/+) and H2AX knockout (-/-) mouse embryonic fibroblasts. Antibody used at 2 ug/ml.	
Western Blot: Histone H2AX Antibody [NB100-638] - Human 293T and wild-type (+/+) or H2AX knockout (-/-) mouse embryonic fibroblasts. Antibody used at the indicated concentrations.	
Western Blot: Histone H2AX Antibody [NB100-638] - Downregulation of the transcription factors Slug and ZEB1 reverses the EMT programme induced by H2A.X deficiency. Control cells (shCTRL) and cells silenced for H2A.X (shH2A.X) were transfected for 3 days with control siRNA (siC) or with a pool of siSLUG and siZEB1 (siS/Z). Immunoblot analysis of EMT markers was performed using tubulin as loading control. Image collected and cropped by CiteAb from the following publication (https://www.nature.com/doifinder/10.1038/ncomms10711), licensed under a CC-BY license.	
Western Blot: Histone H2AX Antibody [NB100-638] - H2A.X re-expression inhibits EMT and promotes metastatic colonization in the lung. Immunoblot analysis of EMT markers in HCT116 parental cells (WT), H2A.X knockout cells (KO) and H2A.X knockout cells in which H2A.X expression was restored (KO+H2A.X), utilizing actin as a loading control. Image collected and cropped by CiteAb from the following publication (https://www.nature.com/doifinder/10.1038/ncomms10711), licensed under a CC-BY license.	

Western Blot: Histone H2AX Antibody [NB100-638] - Knockdown of CAPER induces DSB proteins ATM & H2AX & leads to apoptosis in MDA-MB-231 cells(A) H2AX phosphorylation on ser139 is significantly increased (upper right quadrant population) in MDA-MB-231 cells after CAPER knockdown as represented by Muse Cell Analyzer plots (3-fold, $p < 0.001$, $n = 3$). (B) The increase in γH2AX was also validated through western blot analysis (2.5-fold, $p < 0.01$, $n = 3$). ATM phosphorylation on serine1981 is significantly upregulated after knockdown of CAPER expression (5-fold, $p < 0.05$, $n = 3$). (C) CAPER knockdown resulted in an increased level of caspase-3/7 activation through decreasing live cells (1.2-fold, $p < 0.001$, $n = 3$), while increasing apoptotic (7.5-fold, $p < 0.001$, $n = 3$), apoptotic/dead (6.5-fold, $p < 0.001$, $n = 3$), & dead (3-fold, $p < 0.05$, $n = 3$) cell populations. Interestingly, MDA-MB-231 cells expressing CAPER knockdown displayed no significant changes in any of the phases of the cell cycle (p = NS, $n = 8$, for G1, S & G2/M phases) compared to CTL shRNA (Figure 7C right panels). Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30100993), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

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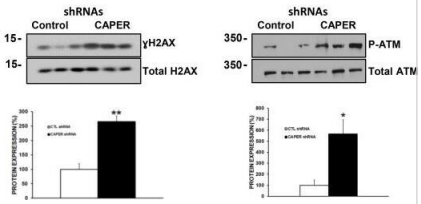

Publications

Mayra Paolillo, Raffaella Colombo, Massimo Serra, Laura Belvisi, Adele Papetti, Emilio Ciusani, Sergio Comincini, Sergio Schinelli Stem-Like Cancer Cells in a Dynamic 3D Culture System: A Model to Study Metastatic Cell Adhesion and Anti-Cancer Drugs Cells 2019-11-13 [PMID: 31766310]

Konopka A, Whelan DR, Jamali MS et al. Impaired NHEJ repair in amyotrophic lateral sclerosis is associated with TDP-43 mutations Molecular neurodegeneration 2020-09-09 [PMID: 32907630] (ICC/IF, Chinese Hamster, Mouse)

Chilewski SD, Bhosale D, Dees S et al. Development of CAPER peptides for the treatment of triple negative breast cancer Cell Cycle 2020-01-13 [PMID: 31931653] (Human)

Vanzo R, Bartkova J, Merchut-Maya JM et al. Autophagy role(s) in response to oncogenes and DNA replication stress Cell Death Differ. 2019-08-14 [PMID: 31409894] (WB, Human)

Campbell MC, Pontiggia L, Russell AY et al. CAPER as a therapeutic target for triple negative breast cancer Oncotarget 2018-07-13 [PMID: 30100993] (WB, Human)

Pelz L, Purfurst B, et al. The cell adhesion molecule BT-IgSF is essential for a functional blood-testis barrier and male fertility in mice. J Biol Chem 2017-12-29 [PMID: 29123028] (Mouse)

Sharma V, Khurana S, Kubben N et al. A BRCA1-interacting lncRNA regulates homologous recombination. EMBO Rep 2015-11-01 [PMID: 26412854] (WB, Human)

Weyemi U, Redon CE, Choudhuri R et al. The histone variant H2A.X is a regulator of the epithelial-mesenchymal transition. Nat Commun 2016-02-15 [PMID: 26876487] (WB)

Choe KN, Nicolae CM, Constantin D et al. HUWE1 interacts with PCNA to alleviate replication stress. EMBO Rep. 2016-05-04 [PMID: 27146073] (WB, Human)

Bakhoum SF, Kabeche L, Wood MD et al. Numerical chromosomal instability mediates susceptibility to radiation treatment. Nat Commun. 2015-01-22 [PMID: 25606712] (IF/IHC, Human)

Yokonishi T, Sato T, Katagiri K et al. In Vitro Reconstruction of Mouse Seminiferous Tubules Supporting Germ Cell Differentiation. Biol Reprod 2013-06-12 [PMID: 23759307] (ICC/IF, IHC-Fr, Mouse)

He J, Shi LZ, Truong LN et al. Rad50 zinc hook is important for the Mre11 complex to bind chromosomal DNA double-stranded breaks and initiate various DNA damage responses. J Biol Chem 2012-09-01 [PMID: 22833675]

More publications at http://www.novusbio.com/NB100-638

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Products Related to NB100-638

NBL1-11424	Histone H2AX Overexpression Lysate
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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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