

# Product Datasheet

## Histone H2AX Antibody - BSA Free NB100-383

Unit Size: 100 ul

Store at 4C. Do not freeze.

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**NB100-383**

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)

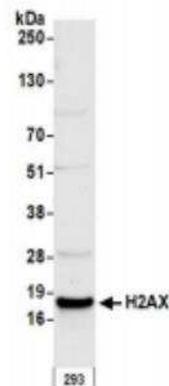
Product Description	
Host	Rabbit
Gene ID	3014
Gene Symbol	H2AX
Species	Human, Mouse
Specificity/Sensitivity	This is specific for H2AX. It is not known if this also recognizes the phosphorylated form of H2AX.
Immunogen	The immunogen recognized by this antibody maps to the C-terminus of human histone H2AX using the numbering given for Swiss-Prot entry P16104 (GeneID 3014).

Product Application Details	
Applications	Western Blot, Simple Western, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 1:2000-1:10000, Simple Western 10 ug/ml, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:250-1:1000, Immunoprecipitation, Immunohistochemistry-Paraffin 1:500-1:2000
Application Notes	By Western blot, this antibody recognizes a band at ~25 kDa, representing monoubiquitinated H2AX protein and ~14 kDa, representing H2AX. IP, IHC reported in (PMID: 22426396). ICC/IF reported in (PMID: 20203688). br/>In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. See <a href="#">Simple Western Antibody Database</a> for Simple Western validation: Tested in HEK lysate, separated by Size, antibody dilution of 10 ug/mL, apparent MW was 28 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.

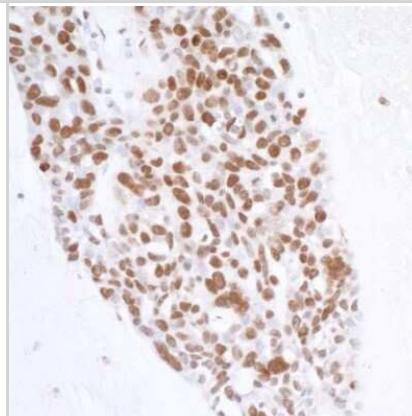


## Images

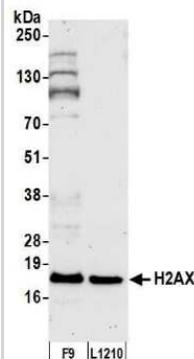
Western Blot: Histone H2AX Antibody [NB100-383] - Whole cell lysate (50 ug) from HEK293T cells prepared using RIPA lysis buffer. Antibody: Affinity purified rabbit anti-H2AX antibody used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 10 seconds.



Immunohistochemistry-Paraffin: Histone H2AX Antibody [NB100-383] - Section of human ovarian carcinoma. Antibody: Affinity purified rabbit anti-H2AX (NB100-383). Detection: DAB



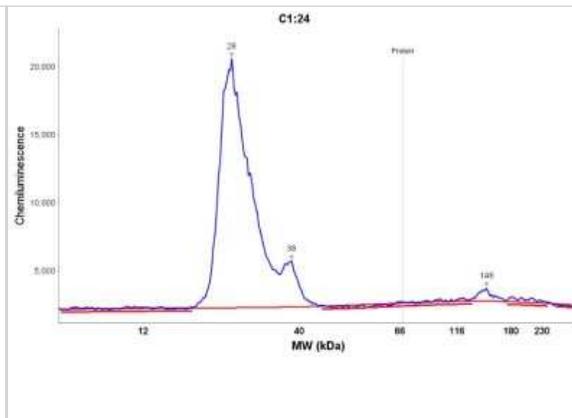
Western Blot: Histone H2AX Antibody [NB100-383] - Detection of mouse H2AX by western blot. Samples: Whole cell lysate (50 ug) from F9 and L1210 cells prepared using RIPA lysis buffer. Antibody: Affinity purified rabbit anti-H2AX antibody A300-083A (lot A300-083A-5) used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 30 seconds.



Simple Western: Histone H2AX Antibody [NB100-383] - Simple Western lane view shows a specific band for H2AX in 0.2 mg/ml of HEK lysate(s). This experiment was performed under reducing conditions using the 12 - 230 kDa separation system.



Simple Western: Histone H2AX Antibody [NB100-383] - Electropherogram image(s) of corresponding Simple Western lane view. H2AX antibody was used at 10 ug/ml dilution on HEK lysate(s).



## Publications

S Balasubram, M Andreani, JG Andrade, T Saha, D Sundaravin, J Garzón, W Zhang, O Popp, SI Hiraga, A Rahjouei, DB Rosen, P Mertins, BT Chait, AD Donaldson, M Di Virgili Protection of nascent DNA at stalled replication forks is mediated by phosphorylation of RIF1 intrinsically disordered region *Elife*, 2022-04-13;11(0):. 2022-04-13 [PMID: 35416772]

Kaima Tsukada, Samuel E Jones, Julius Bannister, Mary-Anne Durin, Iolanda Vendrell, Matthew Fawkes, Roman Fischer, Benedikt M Kessler, J Ross Chapman, Andrew N Blackford BLM and BRCA1-BARD1 coordinate complementary mechanisms of joint DNA molecule resolution. *Molecular cell* 2024-01-19 [PMID: 38266639]

Yang Y, Lu H, Chen C et al. HIF-1 Interacts with TRIM28 and DNA-PK to release paused RNA polymerase II and activate target gene transcription in response to hypoxia *Nature communications* 2022-01-14 [PMID: 35031618] (WB)

Leimbacher PA, Jones SE, Shorrocks AK et al. MDC1 Interacts with TOPBP1 to Maintain Chromosomal Stability during Mitosis *Mol. Cell* 2019-03-18 [PMID: 30898438] (WB, ICC/IF, Human)

Piao CS, Loane DJ, Stoica B et al. Combined inhibition of cell death induced by apoptosis inducing factor and caspases provides additive neuroprotection in experimental traumatic brain injury. *Neurobiol Dis.* 2012-06-01 [PMID: 22426396] (IF/IHC, IP, Mouse)

Artus C, Boujrad H, Bouharrou A et al. AIF promotes chromatinolysis and caspase-independent programmed necrosis by interacting with histone H2AX. *EMBO J* 2010-04-01 [PMID: 20360685] (Mouse)

Muramatsu Y, Ohishi T, Sakamoto M et al. Cross-species difference in telomeric function of tankyrase 1. *Cancer Sci* 2007-06-01 [PMID: 17433040]

Wu CY, Kang HY, Yang WL et al. Critical role of monoubiquitination of histone H2AX protein in histone H2AX phosphorylation and DNA damage response. *J Biol Chem* 2011-09-01 [PMID: 21690091]

Masaki H, Nishida T, Kitajima S et al. Developmental pluripotency-associated 4 (DPPA4) localized in active chromatin inhibits mouse embryonic stem cell differentiation into a primitive ectoderm lineage. *J Biol Chem* 2007-11-01 [PMID: 17855347]

Cheok CF, Kua N, Kaldis P, Lane DP. Combination of nutlin-3 and VX-680 selectively targets p53 mutant cells with reversible effects on cells expressing wild-type p53. *Cell Death Differ* 2010-09-01 [PMID: 20203688] (ICC/IF, Human)

Cheng WH, Muftic D, Muftuoglu M et al. WRN is required for ATM activation and the S-phase checkpoint in response to interstrand cross-link-induced DNA double-strand breaks. *Mol Biol Cell* 2008-09-01 [PMID: 18596239]

Thompson, S L D A Compton. Examining the link between chromosomal instability aneuploidy in human cells. *J Cell Biol* 180: 665-672. 2008-01-01 [PMID: 18283116]

More publications at <http://www.novusbio.com/NB100-383>



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### **Products Related to NB100-383**

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NBL1-11424	Histone H2AX Overexpression Lysate
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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