

Product Datasheet

Histone H2AX [p Ser139] Antibody (3F2) NB100-74435

Unit Size: 100 ug

Store at -20C. Avoid freeze-thaw cycles.

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NB100-74435**Histone H2AX [p Ser139] Antibody (3F2)**

Product Information	
Unit Size	100 ug
Concentration	1 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	3F2
Preservative	0.05% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	PBS with 1 mg/ml BSA
Target Molecular Weight	15 kDa
Product Description	
Host	Mouse
Gene ID	3014
Gene Symbol	H2AX
Species	Human, Mouse, Bovine
Reactivity Notes	Bovine reactivity reported in scientific literature (PMID: 17604361). Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Additional Mouse on Mouse blocking steps may be required for IHC and ICC experiments. Please contact Technical Support for more information.
Marker	DNA Double-strand break marker
Specificity/Sensitivity	In Western blot this antibody detects ~17 kDa protein representing phosphorylated H2AX in gamma irradiated HeLa cell lysate. In immunofluorescence procedures, recognizes phosphorylated H2AX in gamma irradiated HeLa cells. ELISA of phosphorylated H2AX can also be performed. Used in IHC to successfully detect H2A.X pSer140 in postnatal mouse lung section.
Immunogen	This Histone H2AX [p Ser139] Antibody (3F2) was developed against a synthetic peptide sequence surrounding phosphorylated Ser139.
Notes	Licensed to Novus Biologicals LLC under U.S. Patent Nos. 6,362,317 and 6,884,873.
Product Application Details	
Applications	Western Blot, Simple Western, ELISA, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1 ug/ml, Simple Western 10 ug/ml, Flow Cytometry 1 ug/million cells, ELISA 1:100 - 1:2000, Immunohistochemistry 1:10 - 1:500, Immunocytochemistry/ Immunofluorescence 2 - 4 ug/ml, Immunohistochemistry-Paraffin 1:10 - 1:500



Application Notes

In WB: Detects an approx. 17 kDa protein representing phosphorylated H2AX in gamma irradiate Hela cell lysate.

In Simple Western only 10 - 15 uL of the recommended dilution is used per data point.

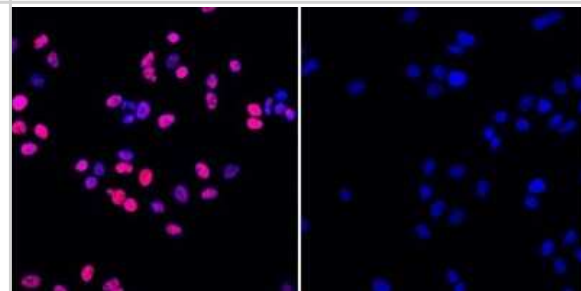
See [Simple Western Antibody Database](#) for Simple Western validation: Tested in Jurkat lysate, separated by Size, antibody dilution of 10 ug/mL, apparent MW was 28 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.

Images

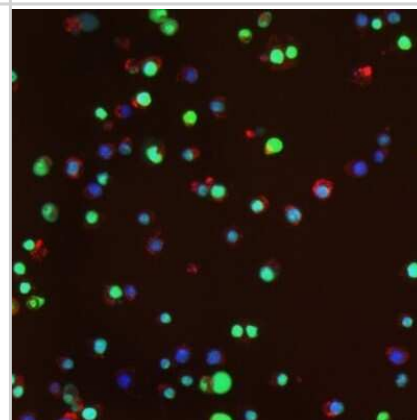
Simple Western: Histone H2AX [p Ser139] Antibody (3F2) [NB100-74435] - Simple Western lane view shows a specific band for Histone H2AX [p Ser139] in 0.2 mg/ml of Jurkat lysate(s). This experiment was performed under reducing conditions using the 12 - 230 kDa separation system.



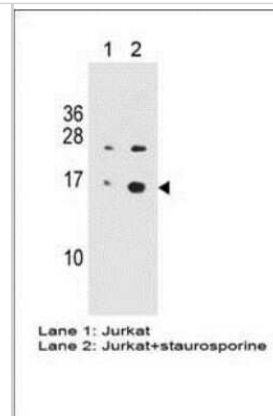
Immunocytochemistry/Immunofluorescence: Histone H2AX [p Ser139] Antibody (3F2) [NB100-74435] - Staining of Phospho-H2AX in A549 cells. Cells were treated with 50 uM EPE for 1 hour (left panel) or with vehicle (right control: 0.1% DMSO in media).



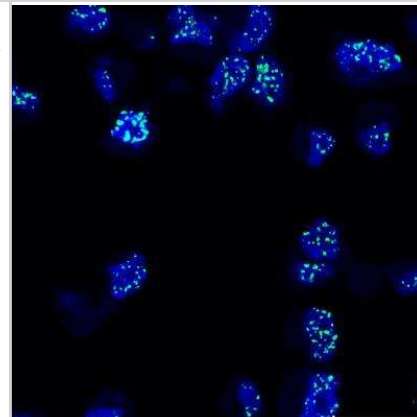
Immunocytochemistry/Immunofluorescence: Histone H2AX [p Ser139] Antibody (3F2) [NB100-74435] - Staining using NB100-74435, treatment with paraquat and iron induces MnSOD and Phosphorylation of H2AX in RAW 264.7 macrophages. Cells were treated for 20 hours with paraquat (500 uM) and iron (200 ug/ml) and stained with anti-Phospho-H2AX antibody.



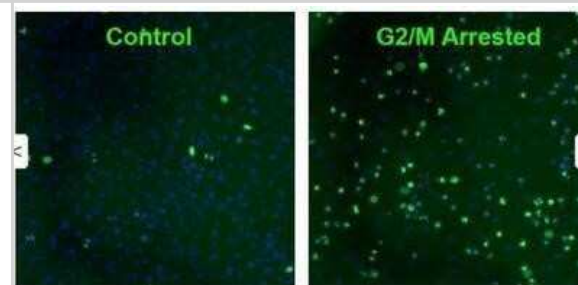
Western Blot: Histone H2AX [p Ser139] Antibody (3F2) [NB100-74435] - Western blot analysis of Jurkat cells (Lane 1) and Jurkat cells treated with staurosporine (Lane 2) blotted with Histone H2AX [p Ser139] antibody (3F2). Bands indicate an observed molecular weight of ~16 kDa.



Immunocytochemistry/Immunofluorescence: Histone H2AX [p Ser139] Antibody (3F2) [NB100-74435] - STED image of MDA-MB-231 cells after 2 Gy irradiation. Blue channel: DAPI, window level [0 255]. Green channel: secondary antibody Alexa Fluor 488, window level [140 255]. Scale bar: 20 um. Image from verified customer review.



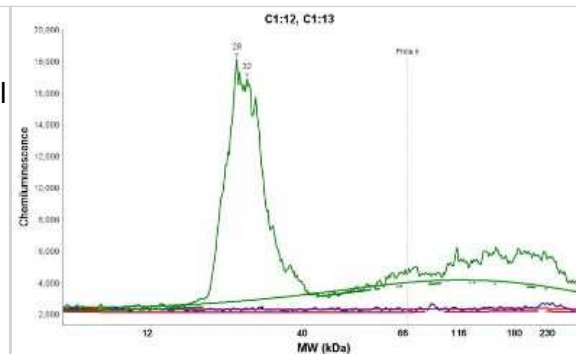
Immunocytochemistry/Immunofluorescence: Histone H2AX [p Ser139] Antibody (3F2) [NB100-74435] - Immunofluorescence analysis using Histone H2AX [p Ser139] antibody (3F2).



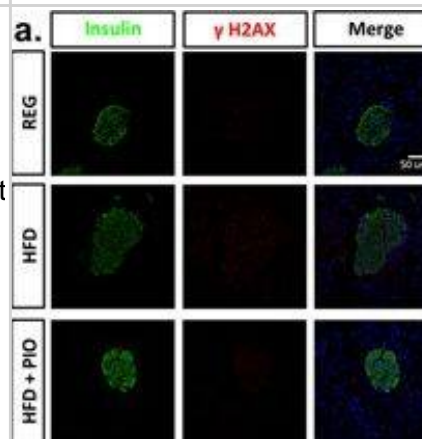
Immunocytochemistry/Immunofluorescence: Histone H2AX [p Ser139] Antibody (3F2) [NB100-74435] - IF image of phosphorylated H2AX in gamma irradiated Hela cells.



Simple Western: Histone H2AX [p Ser139] Antibody (3F2) [NB100-74435] - Electropherogram image(s) of corresponding Simple Western lane view. Histone H2AX [p Ser139] antibody (3F2) was used at 10 ug/ml dilution on Jurkat lysate(s).



Immunocytochemistry/ Immunofluorescence: Histone H2AX [p Ser139] Antibody (3F2) [NB100-74435] - Evidence of DNA damage & oxidative stress in islets from HFD treated mice. (a) Representative immunofluorescent staining of γ H2AX, insulin, & DAPI for islets from each treatment group. (b) Representative immunofluorescent staining of 4-hydroxynonenal (4-HNE), insulin, & DAPI for islets from each treatment group. (c) Representative immunofluorescent staining of nitrotyrosine, insulin, & DAPI for islets from each treatment group. (d–g) qRT-PCR analysis of total islet RNA for antioxidant genes, including Gpx1, SOD1, Nrf2, & Ppargc1 α . (n = 3) *p < 0.05, **p < 0.01. Image collected & cropped by CiteAb from the following publication (<https://www.nature.com/articles/s41598-017-03869-5>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

López-Valverde JA, Jiménez-Ortega E, Leal A. Clinical Feasibility Study of Gold Nanoparticles as Theragnostic Agents for Precision Radiotherapy Biomedicines 2022-05-23 [PMID: 35625950] (Immunocytochemistry/Immunofluorescence)

Singh M, Kondrashkina AM, Widmann TJ et al. A new human embryonic cell type associated with activity of young transposable elements allows definition of the inner cell mass PLoS biology 2023-06-01 [PMID: 37339119]

Bhardwaj P, Iyengar NM, Zahid H et al. Obesity promotes breast epithelium DNA damage in women carrying a germline mutation in BRCA1 or BRCA2 Science translational medicine 2023-02-22 [PMID: 36812344]

Trier I, Black EM, Joo YK, Kabeche L ATR protects centromere identity by promoting DAXX association with PML nuclear bodies Cell reports 2023-05-30 [PMID: 37163376] (ICC/IF, Human)

Vigasova K, Durdik M, Jakl L et al. Chemotherapy and cryopreservation affects DNA repair foci in lymphocytes of breast cancer patients International journal of radiation biology 2023-05-18 [PMID: 37145321]

Admasu TD, Kim K, Rae M et al. Selective ablation of primary and paracrine senescent cells by targeting iron dyshomeostasis Cell reports 2023-02-06 [PMID: 36753419] (ICC/IF, Human)

Bui TM Dissecting the Diverse Phenotypes and Pathological Impacts of Neutrophils in Colitis-to-CRC Progression Thesis 2022-01-01

PAramo M, Santamarla E, Idoate MA et al. A new animal model of atrophy-hypertrophy complex and liver damage following Yttrium-90 lobar selective internal radiation therapy in rabbits Scientific reports 2022-02-02 [PMID: 35110610] (IHC-P, Rabbit)

Kim K, Admasu TD, Stolzing A, Sharma A Enhanced co-culture and enrichment of human natural killer cells for the selective clearance of senescent cells Aging 2022-03-04 [PMID: 35245208] (ICC/IF, 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] (IF/IHC, Mouse)

Kobayashi, Y, Tata, A Et al. Persistence of a regeneration-associated, transitional alveolar epithelial cell state in pulmonary fibrosis. Nat Cell Biol 2020-08-01 [PMID: 32661339] (IP, Human)

Sugaya K Characterization of cells expressing MRI reporters for the analysis of epigenetics Analytical biochemistry 2021-09-30 [PMID: 34600867] (IM)

More publications at <http://www.novusbio.com/NB100-74435>





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Products Related to NB100-74435

NBL1-11424	Histone H2AX Overexpression Lysate
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)

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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