

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	
Description	Novus Biologicals Mouse Histone H2AX [p Ser139] Antibody (3F2) (NB100-74435) is a monoclonal antibody validated for use in IHC, WB, ELISA, Flow, ICC/IF, Simple Western and IP. Anti-Histone H2AX Antibody: Cited in 17 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
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, Immunohistochemistry-Paraffin, ELISA, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
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.

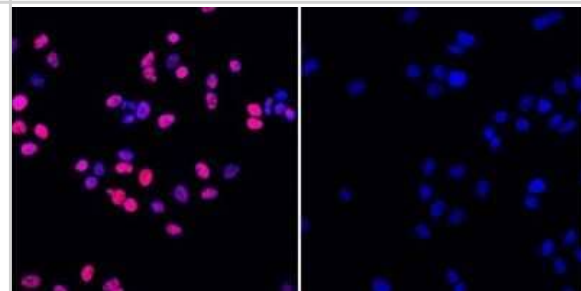
See [Simple Western Antibody Database](#) for Simple Western validation: Tested in Jurkat lysate, separated by Size, antibody dilution of 10 ug/mL, apparent MW was 28 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.

Images

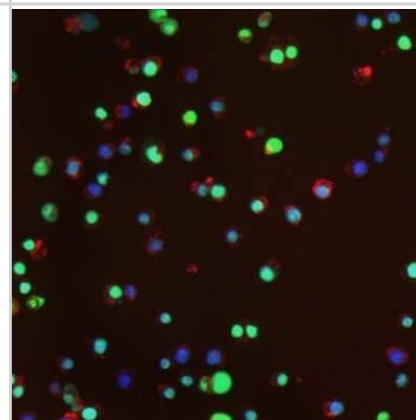
Simple Western: Histone H2AX [p Ser139] Antibody (3F2) [NB100-74435] - Simple Western lane view shows a specific band for Histone H2AX [p Ser139] in 0.2 mg/ml of Jurkat lysate(s). This experiment was performed under reducing conditions using the 12 - 230 kDa separation system.



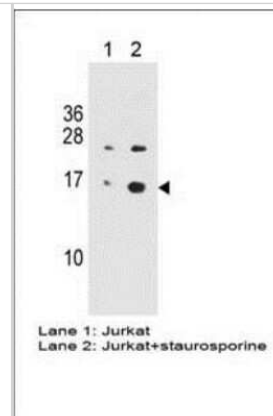
Immunocytochemistry/Immunofluorescence: Histone H2AX [p Ser139] Antibody (3F2) [NB100-74435] - Staining of Phospho-H2AX in A549 cells. Cells were treated with 50 uM EPE for 1 hour (left panel) or with vehicle (right control: 0.1% DMSO in media).



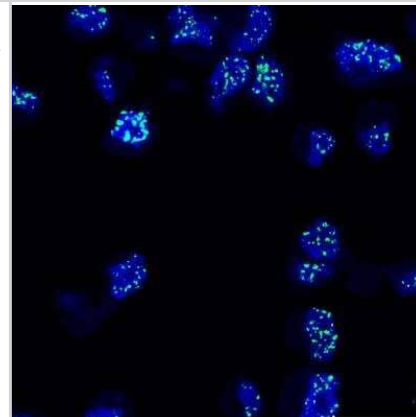
Immunocytochemistry/Immunofluorescence: Histone H2AX [p Ser139] Antibody (3F2) [NB100-74435] - Staining using NB100-74435, treatment with paraquat and iron induces MnSOD and Phosphorylation of H2AX in RAW 264.7 macrophages. Cells were treated for 20 hours with paraquat (500 uM) and iron (200 ug/ml) and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



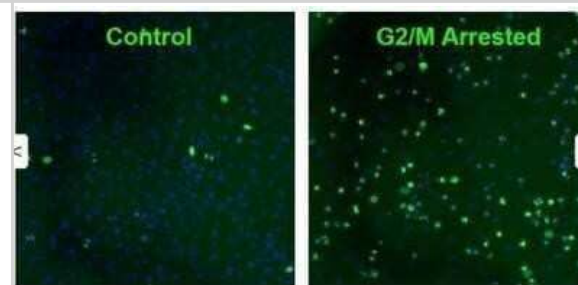
Western Blot: Histone H2AX [p Ser139] Antibody (3F2) [NB100-74435] - Western blot analysis of Jurkat cells (Lane 1) and Jurkat cells treated with staurosporine (Lane 2) blotted with Histone H2AX [p Ser139] antibody (3F2). Bands indicate an observed molecular weight of ~16 kDa.



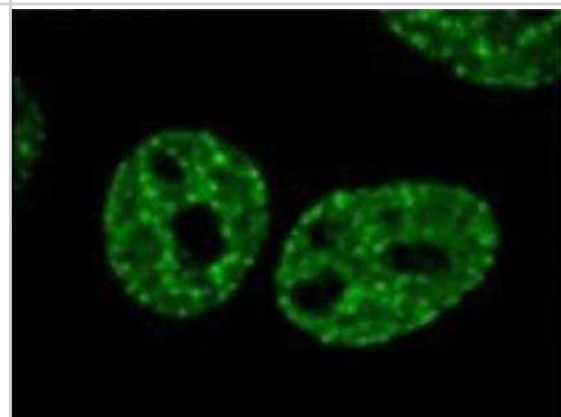
Immunocytochemistry/Immunofluorescence: Histone H2AX [p Ser139] Antibody (3F2) [NB100-74435] - STED image of MDA-MB-231 cells after 2 Gy irradiation. Blue channel: DAPI, window level [0 255]. Green channel: secondary antibody Alexa Fluor 488, window level [140 255]. Scale bar: 20 um. Image from verified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



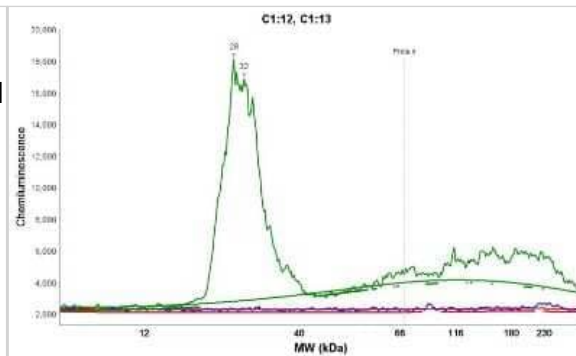
Immunocytochemistry/Immunofluorescence: Histone H2AX [p Ser139] Antibody (3F2) [NB100-74435] - Immunofluorescence analysis using Histone H2AX [p Ser139] antibody (3F2).



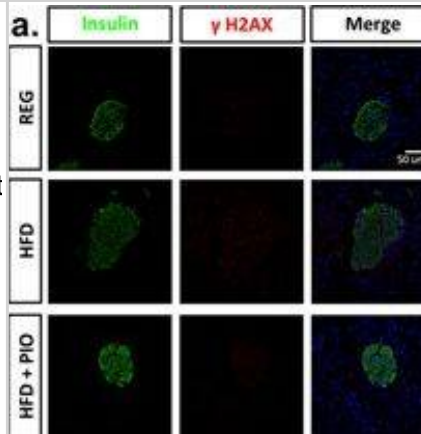
Immunocytochemistry/Immunofluorescence: Histone H2AX [p Ser139] Antibody (3F2) [NB100-74435] - IF image of phosphorylated H2AX in gamma irradiated HeLa cells.



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

Barkovskaya A, Brauning A, Thambala A et al. Mitigating Pro-Inflammatory SASP and DAMP With Urolithin A: A Novel Senomorphic Strategy. *Aging cell* 2025-09-29 [PMID: 41021772]

Seasock, MJ;Shafiquzzaman, M;Ruiz-Echartea, ME;Kanchi, RS;Tran, BT;Simon, LM;Meyer, MD;Erice, PA;Lotlikar, SL;Wenlock, SC;Ochsner, SA;Enright, A;Carisey, AF;Romero, F;Rosas, IO;King, KY;McKenna, NJ;Coarfa, C;Rodriguez, A; Let-7 restrains an epigenetic circuit in AT2 cells to prevent fibrogenic intermediates in pulmonary fibrosis *Nature communications* 2025-05-10 [PMID: 40348760]

Pan, R;Meyerholz, DK;Perlman, S; Cells that survive acute SARS-CoV-2 infection contribute to inflammation and lung regeneration in mice *mBio* 2025-01-29 [PMID: 39878483]

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] (Immunohistochemistry-Paraffin, Human)

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, Santamaría 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)

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





Novus Biologicals USA

10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada

21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd

19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information

www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Products Related to NB100-74435

NBL1-11424	Histone H2AX Overexpression Lysate
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
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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