Product Datasheet

ATM [p Ser1981] Antibody (10H11.E12) - BSA Free
NB100-306

Unit Size: 0.1 ml

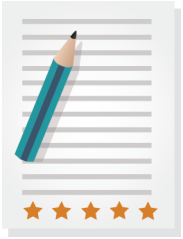
Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Reviews: 1 Publications: 30

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB100-306

Updated 11/11/2025 v.20.1



NB100-306

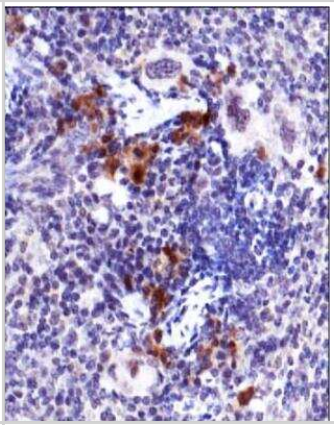
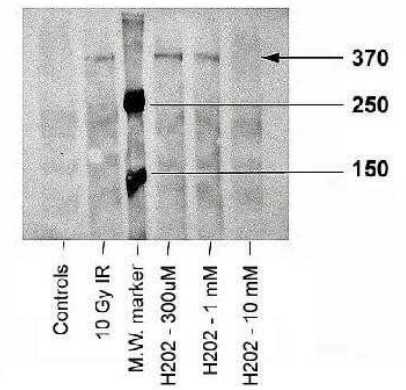
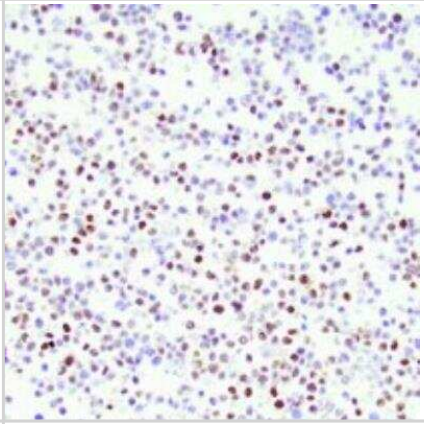
ATM [p Ser1981] Antibody (10H11.E12) - BSA Free

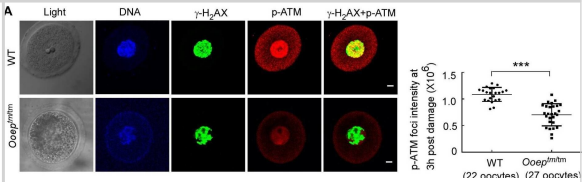
Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	10H11.E12
Preservative	0.05% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	PBS
Target Molecular Weight	351 kDa

Product Description	
Description	Novus Biologicals Mouse ATM [p Ser1981] Antibody (10H11.E12) - BSA Free (NB100-306) is a monoclonal antibody validated for use in IHC, WB, ICC/IF and IP. Anti-ATM Antibody: Cited in 29 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	472
Gene Symbol	ATM
Species	Human, Mouse, Rat, Canine (Negative)
Immunogen	ATM [p Ser1981] Antibody (10H11.E12) was made to a synthetic peptide made to a region surrounding the phosphorylated Serine 1981 of human ATM. [UniProt# Q13315]

Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation
Recommended Dilutions	Western Blot 1:1000, Immunohistochemistry 1:200, Immunocytochemistry/ Immunofluorescence 1:1000, Immunoprecipitation 1:10-1:500, Immunohistochemistry-Paraffin 1:200
Application Notes	This ATM [p Ser1981] (10H11.E12) antibody useful for Immunocytochemistry/Immunofluorescence, Immunoprecipitation, Immunohistochemistry on paraffin-embedded sections and Western blot, where a band at ~370 kDa can be seen. In IHC-P, staining was observed in the nucleus and cytoplasm of mouse spleen.

Images

Immunohistochemistry: ATM [p Ser1981] Antibody (10H11.E12) [NB100-306] - ATM [p Ser1981] antibody (10H11.E12) [NB100-306] was tested in mouse spleen using DAB with hematoxylin counterstain.	
Western Blot: ATM [p Ser1981] Antibody (10H11.E12) [NB100-306] - Analysis of ATM-kinase, using ATM [p Ser1981] antibody (10H11.E12) [NB100-306]. Sample: Irradiated or peroxidated human fibroblasts. Observed molecular weight 370 kDa. Theoretical molecular weight 351 kDa.	
Immunocytochemistry/Immunofluorescence: ATM [p Ser1981] Antibody (10H11.E12) [NB100-306] - Human lymphoblastoid cells stained with ATM [p Ser1981] Antibody (10H11.E12). ICC/IF image submitted by a verified customer review.	
Western Blot: ATM [p Ser1981] Antibody (10H11.E12) [NB100-306] - MCELNs decreased the DNA damage of H9C2 cells after radiation. Western blot images of p-ATM (NB100-306) and ATM (NB100-309) in H9C2 cells after 48 h of culture with indicated treatment. IR (-/+): 0/16 Gy X-ray; MCELNs (-/+): 0/10 ug/mL. Image collected and cropped by CiteAb from the following publication (//pubmed.ncbi.nlm.nih.gov/35509278/) licensed under a CC-BY license.	

MCELNs decreased the DNA damage of H9C2 cells after radiation. (A) Immunofluorescence staining of γ-H2A.X (green) in H9C2 cells after 48 h of culture with indicated treatment. The nucleus were stained with DAPI (blue), scale bar: 10 μm. Western blot images (B) and quantitation (C) of γ-H2A.X in H9C2 cells after 48 h of culture with indicated treatment. (D) Immunofluorescence staining of p-ATM (green) in H9C2 cells after 48 h of culture with indicated treatment. The nucleus were stained with DAPI (blue), scale bar: 10 μm. Western blot images (E) and quantitation (F) of p-ATM and ATM in H9C2 cells after 48 h of culture with indicated treatment. IR (–/+): 0/16 Gy X-ray; MCELNs (–/+): 0/10 μg/mL. All data were represented as means +/- SD (n = 3 independent experiments). The statistical significance was evaluated by one-way ANOVA followed by the Turkey's multiple comparisons test among groups. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/35509278), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
OOEP is required for ATM activation and RAD51 recruitment to DNA damage sites Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/29955025), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Publications

Cui WW, Ye C, Wang KX et al. Momordica. charantia-Derived Extracellular Vesicles-Like Nanovesicles Protect Cardiomyocytes Against Radiation Injury via Attenuating DNA Damage and Mitochondria Dysfunction Frontiers in Cardiovascular Medicine 2022-04-18 [PMID: 35509278]

Mehta RK, Pal S, Kondapi K et al. Low-Dose Hsp90 Inhibitor Selectively Radiosensitizes HNSCC and Pancreatic Xenografts Clinical Cancer Research 2020-10-01 [PMID: 32718999]

Masaya Igase, Shusaku Shibutani, Yosuke Kurogouchi, Noriyuki Fujiki, Chung Chew Hwang, Matt Coffey, Shunsuke Noguchi, Yuki Nemoto, Takuya Mizuno Combination Therapy with Reovirus and ATM Inhibitor Enhances Cell Death and Virus Replication in Canine Melanoma Molecular Therapy Oncolytics 2019-08-28 [PMID: 31650025]

Moon D, Padanilam BJ, Jang HS, Kim J 2-Mercaptoethanol protects against DNA double-strand breaks after kidney ischemia and reperfusion injury through GPX4 upregulation Pharmacological reports : PR 2022-08-22 [PMID: 35989399]

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)

Stanley G SIRT7 and ATM are Barriers to a Productive Adenovirus E4 Mutant Infection Thesis 2021-01-01 (ICC/IF)

Wang X, Lupton C, Lauth A et al. Evidence that the acetyltransferase Tip60 induces the DNA damage response and cell-cycle arrest in neonatal cardiomyocytes Journal of molecular and cellular cardiology 2021-02-17 [PMID: 33609538] (ICC/IF, Mouse)

Chakravarti D, Hu B, Mao X et al. Telomere dysfunction activates YAP1 to drive tissue inflammation Nat Commun 2020-09-21 [PMID: 32958778] (WB, Mouse)

A-TWinnipeg: Pathogenesis of rare ATM missense mutation c.6200C>A with decreased protein expression and downstream signaling, early-onset dystonia, cancer, and life-threatening radiotoxicity. Nakamura K, Fike F, Haghayegh S Mol Genet Genomic Med 2014-02-02 [PMID: 25077176] (WB, Human)

Gautam D, Stanley G, Owen M, Bridge E. Localization of the kinase Ataxia Telangiectasia Mutated to Adenovirus E4 mutant DNA replication centers is important for its inhibitory effect on viral DNA accumulation. Virology. 2018-11-16 [PMID: 30453211] (ICC/IF, Human)

He DJ, Wang L, Zhang ZB et al. Maternal gene Ooep may participate in homologous recombination-mediated DNA double-strand break repair in mouse oocytes. Zool Res 2018-06-15 [PMID: 29955025] (Mouse)

Li Z, Liu J, Li J et al. Polo-like kinase 1 (Plk1) overexpression enhances ionizing radiation-induced cancer formation in mice J. Biol. Chem. 2017-09-12 [PMID: 28900036] (Mouse)

More publications at http://www.novusbio.com/NB100-306

Procedures

Western Blot protocol for ATM Antibody (NB100-306)

Western Blot Procedure

1) Resolve protein samples on a 6% SDS-PAGE gel at 185V for ~1.5 hours.

2) Transfer to PVDF membranes at 25V for ~1.5 hours.

3) Block the membrane with TBST+BSA and goat serum for 1 hour at RT.

4) Dilute primary antibody (NB 100-306) to 1:1,000 in blocking buffer.

5) Incubate membrane overnight at 4 degrees Celcius in diluted anti-ATM-kinase.

6) Wash 3 times ten minutes on a shaker.

7) Incubate membranes with HRP conjugated anti-mouse IgG for 1 hour (RT), diluted in blocking buffer.

8) Wash 3 times ten minutes on a shaker.

9) Add ECL reagent, as per kit directions, and expose for 1-5 seconds.

Immunohistochemistry-Paraffin Protocol for ATM Antibody (NB100-306)
Immunohistochemistry-Paraffin Embedded Sections

Antigen Unmasking:
Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes (keep slides in the sodium citrate buffer at all times).

Staining:
1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in PBS for 5 minutes.
3. Block each section with 100-400 ul blocking solution (1% BSA in PBS) for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4 C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul HRP polymer conjugated secondary antibody. Incubate 30 minutes at room temperature.
7. Wash sections three times in wash buffer for 5 minutes each.
8. Add 100-400 ul DAB substrate to each section and monitor staining closely.
9. As soon as the sections develop, immerse slides in deionized water.
10. Counterstain sections in hematoxylin.
11. Wash sections in deionized water two times for 5 minutes each.
12. Dehydrate sections.
13. Mount coverslips.

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 NB100-306

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.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NB100-306

Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications