Product Datasheet

ATM Antibody (Y170)
NB110-55475

Unit Size: 0.1 ml

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

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Publications: 15

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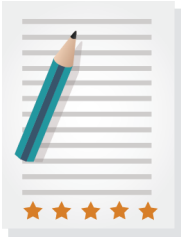

NB110-55475

ATM Antibody (Y170)

Product Information	
Unit Size	0.1 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	Y170
Preservative	0.01% Sodium Azide
Isotype	IgG
Purity	Protein A purified
Buffer	59% PBS, 0.05% BSA and 40% Glycerol
Target Molecular Weight	351 kDa

Product Description	
Host	Rabbit
Gene ID	472
Gene Symbol	ATM
Species	Human, Mouse (Negative), Rat (Negative)
Specificity/Sensitivity	Detects unphosphorylated ATM at Serine 1981.
Immunogen	A synthetic peptide corresponding to residues surrounding Serine 1981 of human ATM was used as immunogen.
Notes	Produced using Abcam's RabMab® technology. RabMab® technology is covered by the following U.S. Patents, No. 5,675,063 and/or 7,429,487.

Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation
Recommended Dilutions	Western Blot 1:1000-10000, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:100-250, Immunoprecipitation 1:50, Immunohistochemistry-Paraffin 1:100-250

Publications

Fievet A, Bellanger D, Zahed L et al. DNA repair functional analyses of NBN hypomorphic variants associated with NBN-related infertility Hum Mutat. 2019-11-15 [PMID: 31729086] (WB, Human)

Kim D, Mecham RP, Nguyen NH, Roy S Functional classification of ATM variants in ataxia-telangiectasia patients Hum. Mutat. 2019-05-03 [PMID: 31050087] (WB)

Wallace HA, Rana V, Nguyen HQ, Bosco G Three new cases of ataxia-telangiectasia-like disorder: No impairment of the ATM pathway, but S-phase checkpoint defect Hum. Mutat. 2019-04-29 [PMID: 31033087] (WB)

You J, Sobreira NL, Gable DL et al. A Syndromic Intellectual Disability Disorder Caused by Variants in TELO2, a Gene Encoding a Component of the TTT Complex. Am. J. Hum. Genet. 2016-05-05 [PMID: 27132593] (WB, Human)

Qi Y, Schoene NW, Lartey FM et al. Selenium compounds activate ATM-dependent DNA damage response via the mismatch repair protein hMLH1 in colorectal cancer cells. J Biol Chem 2010-10-01 [PMID: 20709753] (WB)

Boichuk S, Hu L, Hein J, Gjoerup OV. Multiple DNA damage signaling and repair pathways deregulated by simian virus 40 large T antigen. J Virol 2010-08-01 [PMID: 20519379] (WB)

Wu M, Kang MM, Schoene NW et al. Selenium compounds activate early barriers of tumorigenesis. J Biol Chem 2010-04-01 [PMID: 20157118] (WB)

Schwartz RA, Carson CT, Schuberth C et al. Adeno-associated virus replication induces a DNA damage response coordinated by DNA-dependent protein kinase. J Virol 2009-06-01 [PMID: 19339345] (WB)

Togano T, Sasaki M, Watanabe M et al. Induction of oncogene addiction shift to NF-kappaB by camptothecin in solid tumor cells. Biochem Biophys Res Commun 2009-12-01 [PMID: 19778522] (WB)

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] (WB)

Lakdawala SS, Schwartz RA, Ferenchak K et al. Differential requirements of the C terminus of Nbs1 in suppressing adenovirus DNA replication and promoting concatemer formation. J Virol 2008-09-01 [PMID: 18562516] (WB)

Li H, Baskaran R, Krisky DM et al. Chk2 is required for HSV-1 ICP0-mediated G2/M arrest and enhancement of virus growth. Virology 2008-05-01 [PMID: 18321553] (WB)

More publications at http://www.novusbio.com/NB110-55475

Procedures

Immunohistochemistry Protocol for ATM Antibody (NB110-55475)
Immunohistochemistry Protocol for Paraffin-embedded Tissues

1. Solutions and reagents
1.1. Xylene
1.2. Ethanol, anhydrous denatured, histological grade (100%, 95%, 70%)
1.3. Washing buffer:
TBST washing buffer: 1XTBS/0.1% Tween-20
To prepare stock solution of 10X TBS: add 24.2 g Trizma base and 80 g sodium chloride to 1L of dH2O. Adjust pH to 7.6.
Working solution. 1XTBST/0.1% Tween-20: add 100ml 10XTBS to 900 ml dH2O. Add 1 ml Tween-20 and mix well.
1.4. Distilled water (dH2O)
1.5. Antigen Retrieval Solution:
0.01M Sodium Citrate Buffer, pH 6.0
To prepare stock solutions:
Solution A. 0.1 M citric acid solution: dissolve 21.0 g of citric acid, monohydrate (C6H8O7.H2O) in 1 liter of dH2O.
Solution B. 0.1M sodium citrate solution: dissolve 29.4 g trisodium citrate dihydrate (C6H5Na3O7.2H2O) in 1 liter of dH2O.
Working solution: Add 9 ml of Stock solution A and 41 ml of stock solution B to 450 ml of dH2O. Adjust pH to 6.0.
1.6. 3% Hydrogene Peroxide
1.7. Blocking buffer:
PBS (Dulbeccos Phosphate Buffered Salts, 1X, catalog #21-031-CV from Mediatech, Inc.) + 10% serum (serum origin depends on the host of the secondary antibody)
1.8. Hematoxylin QS (catalog #H-3404 from Vector Laboratories, Inc.)
1.9. Permanent Mounting medium (VectaMount, catalog# H-5000 Vector Laboratories, Inc.)

2. Protocol

2.1. Deparaffinization/Rehydration
2.1.1. Heat slides in an oven at 65C for 1 hour.
2.1.2. De-paraffinize/hydrate using the following series of washes: two Xylene washes (5 min each), followed by two 100% ethanol rinses (5 min each), followed by 95% ethanol, 70% ethanol, 50% ethanol, 30% ethanol, followed by H2O and a TBST wash for 5 min on a shaker.
2.2. Antigen Retrieval
2.2.1. Immerse slides into staining dish containing Antigen Retrieval Solution.
2.2.2. Place covered staining dish into the rice cooker. Add 120 ml of dH2O.
2.2.3. When cook is turned to warm (about 20 to 30 min), unplug the cooker and remove the staining dish to the bench top.
2.2.4. Allow to cool down, without cover, for 20 min.
2.3. Staining
2.3.1. Wash slides with TBST for 5 min on a shaker.
2.3.2. Inactivate endogenous peroxidase by covering tissue with 3% hydrogen peroxide for 10 min.
2.3.3. Wash slides three times with TBST (3 min each on a shaker).
2.3.4. Block slides with the blocking solution for 1 hour.
2.3.5. Dilute primary antibody in the blocking buffer per recommendation on the data sheet.
2.3.6. Apply primary antibody to each section and incubate overnight in the humidified chamber (4C).
2.3.7. Wash slides three times with TBST (3 min each on a shaker).
2.3.8. Apply to each section secondary HRP-conjugated anti-rabbit antibody diluted in the blocking solution per manufacturers recommendation; incubate for 1 hour at room temperature.
2.3.9. Wash slides three times with TBST (3 min each on a shaker).
2.3.10. Add freshly prepared DAB substrate to the sections.
2.3.11. Incubate tissue sections with the substrate at room temperature until suitable staining develops (generally 2 to 5 min).
2.3.12. Rinse sections with water.
2.3.13. Counterstain with Hematoxylin.
2.3.14. Rinse sections with water.
2.3.15. Dehydrate samples using two rinses with 100% Ethanol (20 dips per rinse) followed by two rinses with Xylene (30 dips per rinse).
2.3.16. Mount coverslips on slides using Permount medium.

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

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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