NB100-306

Unit Size: 0.1 ml
Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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Updated 4/23/2023 v.20.1

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## Product Information

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

<table>
<thead>
<tr>
<th>Parameter</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Host</td>
<td>Mouse</td>
</tr>
<tr>
<td>Gene ID</td>
<td>472</td>
</tr>
<tr>
<td>Gene Symbol</td>
<td>ATM</td>
</tr>
<tr>
<td>Species</td>
<td>Human, Mouse, Rat, Canine (Negative)</td>
</tr>
<tr>
<td>Immunogen</td>
<td>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]</td>
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## Product Application Details

<table>
<thead>
<tr>
<th>Parameter</th>
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<tbody>
<tr>
<td>Applications</td>
<td>Western Blot, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation</td>
</tr>
<tr>
<td>Recommended Dilutions</td>
<td>Western Blot 1:1000, Immunohistochemistry 1:200, Immunocytochemistry/Immunofluorescence 1:1000, Immunoprecipitation 1:10-1:500, Immunohistochemistry-Paraffin 1:200</td>
</tr>
<tr>
<td>Application Notes</td>
<td>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.</td>
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</table>


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.
<table>
<thead>
<tr>
<th>Publications</th>
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<tbody>
<tr>
<td>Stanley G SIRT7 and ATM are Barriers to a Productive Adenovirus E4 Mutant Infection Thesis 2021-01-01 (ICC/IF)</td>
</tr>
<tr>
<td>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)</td>
</tr>
<tr>
<td>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)</td>
</tr>
<tr>
<td>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)</td>
</tr>
<tr>
<td>Wu PK, Wang JY, Chen CF et al. Early Passage Mesenchymal Stem Cells Display Decreased Radiosensitivity and Increased DNA Repair Activity. Stem Cells Transl Med 2017-06-01 [PMID: 28544661] (WB, Human)</td>
</tr>
</tbody>
</table>

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.
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

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<tr>
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<tbody>
<tr>
<td>HAF007</td>
<td>Goat anti-Mouse IgG Secondary Antibody [HRP]</td>
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<tr>
<td>NB720-B</td>
<td>Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]</td>
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<tr>
<td>NBP1-43319-0.5mg</td>
<td>Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)</td>
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