

**ATM Phospho (pS1981) Rabbit Monoclonal Antibody
Product Data Sheet**

Catalog # 2152-1

Clone ID: EP1890Y Lot #: Please refer to vial
Quantity: 100ul
Type: Rabbit Monoclonal IgG
Species Cross-reactivity: Human Mouse Rat
Applications: WB IHC ICC Flow Cytometry IP
Molecular Wt.: 370 kDa
UniProt ID: Q9UK32

Background: ATM is a nuclear phosphoprotein involved in Ataxia-telangiectasia (A-T) an autosomal recessive disorder characterized by cerebellar ataxia, immune deficiencies, increased cancer predisposition, chromosomal instability and radiation sensitivity (1-2). This large protein (370 kDa) is involved in genome stability, cellular responses to DNA damage and cell cycle control. Autophosphorylation at serine 1981 on ATM is required during ATM kinase activation initiated by double strand breaks in genome. After serine 1981 autophosphorylation, ATM phosphorylates downstream proteins (e.g. p53, Chk2) leading to cell cycle arrest and DNA repair (3). More than 100 mutations have been identified so far and are expected to inactivate the ATM protein by truncation or large deletions (4). Defects in ATM contribute to various B cell and T cell Leukemia (5).

Specificity: A synthetic peptide corresponding to residues surrounding serine 1981 of human ATM was used as an immunogen.

Storage Conditions: Store at -20 °C. Buffer: 50 mM Tris-Glycine (pH 7.4), 0.15 M NaCl, 40% Glycerol, 0.01% sodium azide and 0.05% BSA. Stable for 12 months from date of receipt.

Recommended Dilutions:

WB: 1:5,000 – 10,000
IHC: 1:100 - 250
ICC: 1:100 - 250
IP: 1:40

Please visit www.epitomics.com for recommended protocols

Background References:

1. Harnden, D.G.; *Int. J. Radiat. Biol.* 66:S13-S19, 1994.
2. Lavin MF, Shiloh, Y. *Ann. Rev. Imm.* 15:177-202, 1997
3. Goldstine JV, et al. *DNA Repair*, 5:432-443, 2006.
4. Savitsky K et al. *Hum. Mol. Gen.* 4:2025-2032, 1995.
5. Stankovic T. et al. *Lancet* 353:26-29., 1999.

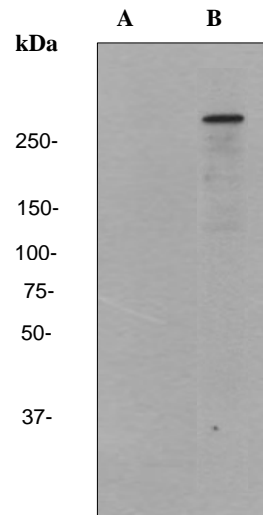


Fig 1. Western blot analysis on HEK293 cell lysates using anti-ATM Phospho (pS1981) RabMab (cat # 2152-1), dilution at 1:10,000. Cells were either (A) untreated or (B) treated with doxorubicin.

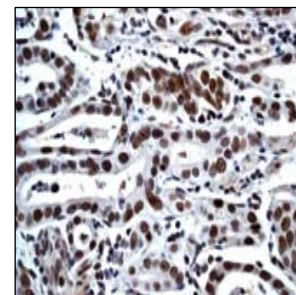


Fig 2. Immunohistochemical analysis of paraffin-embedded human gastric carcinoma using anti-ATM Phospho (pS1981) RabMab (cat# 2152-1).

Product QC'd by: 

For research use only. Not for use in diagnostic or therapeutic applications.

This product was manufactured under U.S. Patent No. 5,675,063. For a complete list of protocols and available related products, please visit us at www.epitomics.com.