BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Serine-protein kinase ATM ATM Antibody

Catalog Number: PA1784

About ATM

ATM (ataxia telangiectasia mutated),also known as TEL1 or TELO1, is a serine/threonine protein kinase that is recruited and activated by DNA double-strand breaks. The ATM protein is a member of the phosphatidylinositol 3-kinase family of proteins that respond to DNA damage by phosphorylating key substrates involved in DNA repair and/or cell cycle control. Linkage analysis of ataxia-telangiectasia led to mapping of the ATM gene to chromosome 11q22.3. Using an antiserum developed to a peptide corresponding to the deduced amino acid sequence of ATM, the ATM protein is a single, high molecular weight protein predominantly confined to the nucleus of human fibroblasts, although it is present in both nuclear and microsomal fractions from human lymphoblast cells and peripheral blood lymphocytes. Overexpression of ATM cDNA in AT cells enhanced their survival after radiation exposure, decreased radiation-induced chromosome aberrations, reduced radioresistant DNA synthesis, and partially corrected defective cell cycle checkpoints and induction of stress-activated protein kinase. ATM has an essential role in the reconstitutive capacity of hematopoietic stem cells but is not as important for the proliferation or differentiation of progenitors, in a telomere-independent manner. ATM functions directly in the repair of chromosomal DNA double-stranded breaks by maintaining DNA ends in repair complexes generated during lymphocyte gene assembly.

Overview

Product Name	Anti-Serine-protein kinase ATM ATM Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Serine-protein kinase ATM ATM Antibody catalog # PA1784. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q13315

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human ATM, different from the related rat and mouse sequences by two amino acids.
Predicted Reactive Species	Monkey
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.

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Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human, Rat, Mouse

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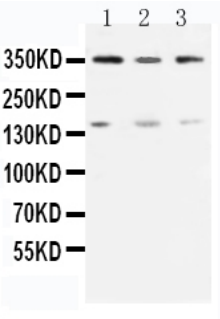
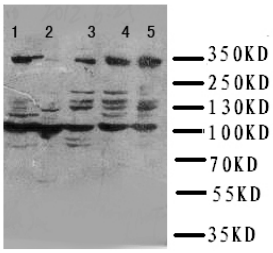
Anti-Serine-protein kinase ATM ATM Antibody (PA1784) Images



Anti-ATM antibody, PA1784, Western blotting
Lane 1: Rat Testis Tissue Lysate
Lane 2: U87 Cell Lysate
Lane 3: MCF-7 Cell Lysate



Anti-ATM antibody, PA1784, Western blotting
Lane 1: HELA Cell Lysate
Lane 2: SMMC Cell Lysate
Lane 3: U87 Cell Lysate
Lane 4: A549 Cell Lysate
Lane 5: MCF-7 Cell Lysate