

## Basic Information

Product Name	Anti-ATM Antibody
Gene Name	ATM
Source	Rabbit
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB
Contents	500 ug/ml antibody with PBS , 0.02% NaN <sub>3</sub> , 1 mg BSA and 50% glycerol.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human ATM(36-50aa DPETIKHLDRHSDSK), different from the related rat and mouse sequences by two amino acids.
concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	350KD
Dilution Ratios	Western blot(WB):1:500-2000

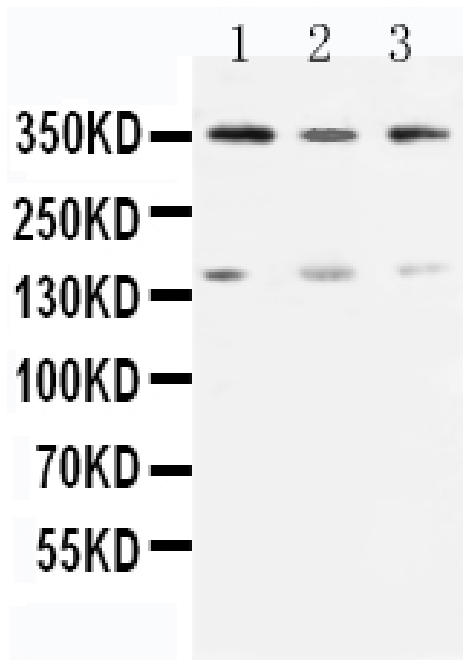
## Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

## Background Information

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.

## Selected Validation Data



Lane 1: Rat Testis Tissue Lysate Lane 2: U87 Cell Lysate Lane 3:  
MCF-7 Cell Lysate