

Instruction Manual

Catalog Number	PK-AB718-3945
Synonyms	ATM Antibody: mutated in Ataxia-Telangiectasia
Description	DNA double strand breaks represent a major threat to an organism's genome. Eukaryotic cells have developed mechanisms that sense the presence this damage and initiate suitable responses that can include DNA repair, cell cycle delay, and programmed cell death. The ATM (mutated in Ataxia-Telangiectasia) protein kinase is activated following the formation of DNA double strand breaks, phosphorylating p53 and another kinase CHK2. This initiates a signaling cascade leading to the phosphorylation and inhibition of Cdc25, ultimately preventing cell cycle progression. In some cell types, such as the hemopoietic system, this leads to apoptosis instead of cell cycle arrest. Multiple isoforms of ATM are known to exist.
Quantity	100 µg
Source / Host	Rabbit
Immunogen	ATM antibody was raised against a peptide corresponding to 14 amino acids near the carboxy terminus of human ATM.
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Human
Specificity	
Formulation	Antibody is supplied in PBS containing 0.02% sodium azide.
Reconstitution	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
Storage & Stability	Antibody can be stored at 4°C for three months and at -20°C for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Applications	E, WB, IHC, IF INote: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually. ATM antibody can be used for detection of ATM by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 10 µg/mL.
Images	Available upon request.
References	Cahill D, Connor B, and Carney JP. Mechanisms of eukaryotic DNA double strand break repair. <i>Front. Biosci.</i> 2006 ; 11 :1958-76. 2. Dasika GK, Lis SC, Zhao S, et al. DNA damage-induced cell cycle checkpoints and DNA strand break repair in development and tumorigenesis. <i>Oncogene</i> 1999; 18:7883-99.
Images	Available upon request.
Related Products	ATM Peptide, Cat. No. PK-AB718-3945P Chk2 Antibody, Cat. No. PK-AB718-2391 Daudi Lysate, Cat. No. PK-AB718-1224

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