

Datasheet for ABIN7127350

Recombinant anti-ATM antibody

4 Images

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Overview

Quantity:	100 µL
Target:	ATM
Reactivity:	Human
Host:	Rabbit
Antibody Type:	Recombinant Antibody
Clonality:	Monoclonal
Conjugate:	This ATM antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA, Immunoprecipitation (IP)

Product Details

Immunogen:	A synthesized peptide derived from human ATM
Clone:	4E11
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	Affinity-chromatography

Target Details

Target:	ATM
Alternative Name:	ATM (ATM Products)
Background:	Background: Serine/threonine protein kinase which activates checkpoint signaling upon double

Target Details

strand breaks (DSBs), apoptosis and genotoxic stresses such as ionizing ultraviolet A light (UVA), thereby acting as a DNA damage sensor. Recognizes the substrate consensus sequence [ST]-Q. Phosphorylates 'Ser-139' of histone variant H2AX/H2AFX at double strand breaks (DSBs), thereby regulating DNA damage response mechanism. Also plays a role in pre-B cell allelic exclusion, a process leading to expression of a single immunoglobulin heavy chain allele to enforce clonality and monospecific recognition by the B-cell antigen receptor (BCR) expressed on individual B-lymphocytes. After the introduction of DNA breaks by the RAG complex on one immunoglobulin allele, acts by mediating a repositioning of the second allele to pericentromeric heterochromatin, preventing accessibility to the RAG complex and recombination of the second allele. Also involved in signal transduction and cell cycle control. May function as a tumor suppressor. Necessary for activation of ABL1 and SAPK. Phosphorylates DYRK2, CHEK2, p53/TP53, FANCD2, NFKBIA, BRCA1, CTIP, nibrin (NBN), TERF1, RAD9 and DCLRE1C. May play a role in vesicle and/or protein transport. Could play a role in T-cell development, gonad and neurological function. Plays a role in replication-dependent histone mRNA degradation. Binds DNA ends. Phosphorylation of DYRK2 in nucleus in response to genotoxic stress prevents its MDM2-mediated ubiquitination and subsequent proteasome degradation. Phosphorylates ATF2 which stimulates its function in DNA damage response.

Aliases: Serine-protein kinase ATM, Ataxia telangiectasia mutated, A-T mutated, ATM

UniProt: [Q13315](#)

Pathways: [p53 Signaling](#), [Apoptosis](#), [DNA Damage Repair](#), [Inositol Metabolic Process](#), [Positive Regulation of Response to DNA Damage Stimulus](#)

Application Details

Application Notes: Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, IP:1:200-1:1000,

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

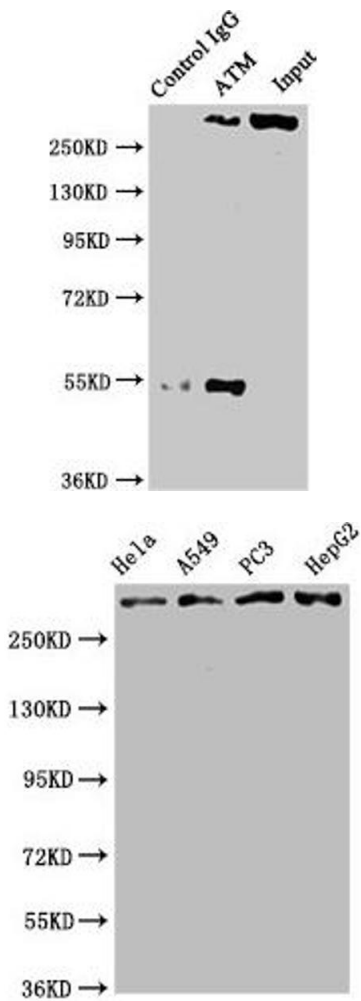
Handling

should be handled by trained staff only.

Storage: -20 °C,-80 °C

Storage Comment: Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images

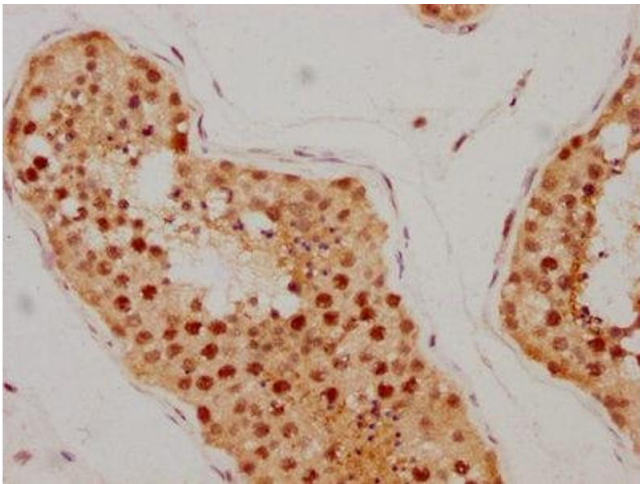


Western Blotting

Image 1. Immunoprecipitating ATM in PC3 whole cell lysate
Lane 1: Rabbit control IgG instead of ABIN7127350 in PC3 whole cell lysate. For western blotting, a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000) Lane 2: ABIN7127350 (3 µg) + PC3 whole cell lysate (500 µg) Lane 3: PC3 whole cell lysate (20 µg)

Western Blotting

Image 2. Western Blot Positive WB detected in: Hela whole cell lysate, A549 whole cell lysate, PC3 whole cell lysate, HepG2 whole cell lysate All lanes: ATM antibody at 2.05 µg/mL Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 350 KDa Observed band size: 350 KDa



Immunohistochemistry

Image 3. IHC image of ABIN7127350 diluted at 1:205 and staining in paraffin-embedded human testis tissue performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10 % normal goat serum 30 min at RT. Then primary antibody (1 % BSA) was incubated at 4 °C overnight. The primary is detected by a biotinylated secondary antibody and

visualized using an HRP conjugated SP system.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN7127350.