

Rabbit ATM Polyclonal Antibody | anti-ATM antibody

ATM Antibody (C-term)

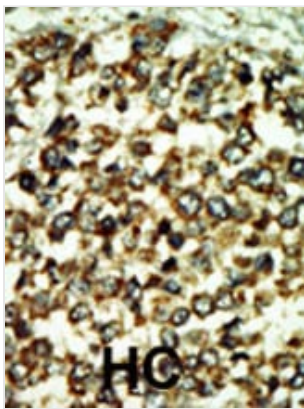
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA290716	Rabbit	Human; Predicted Reactivity: Mouse	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

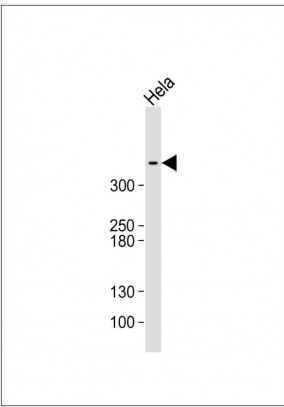
ATM; Polyclonal Antibody; ATM Antibody (C-term); Serine-protein kinase ATM; Ataxia telangiectasia mutated; A-T mutated; anti-ATM antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human; Predicted Reactivity: Mouse
Clonality	Polyclonal
Isotype	Ig
Specificity	This ATM antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 3027~3056 amino acids from the C-terminal region of human ATM.
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Sequence Length	3056
Applicable Applications for anti-ATM antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Subtitle	Purified Rabbit Polyclonal Antibody (Pab)
Cellular Location	Nucleus. Cytoplasmic vesicle. Note=Primarily nuclear. Found also in endocytic vesicles in association with beta-adaptin.
Tissue Location	Found in pancreas, kidney, skeletal muscle, liver, lung, placenta, brain, heart, spleen, thymus, testis, ovary, small intestine, colon and leukocytes.
Antigen Region	3027-3056 aa
Antigen Type	Synthetic Peptide
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.



IHC (Immunohistochemistry)
Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



WB (Western Blot)
Anti-ATM Antibody (C-term) at 1:500 dilution + HeLa whole cell lysate. Lysates/proteins at 20 ug per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 351 kDa. Blocking/Dilution buffer: 5% NFDM/TBST.

ADDITIONAL INFORMATION

Related Product Information for anti-ATM antibody	Description: ATM is involved in signal transduction, cell cycle control and DNA repair, and may function as a tumor suppressor. It is necessary for activation of ABL1 and SAPK, and phosphorylates p53, NFKBIA, BRCA1, CTIP, NIBRIN (NBS1), TERF1, and RAD9. This protein has potential roles in vesicle and/or protein transport, T-cell development, gonad and neurological function. ATM is also part of the BRCA1-associated genome surveillance complex. ATM is induced by ionizing radiation. Defects in ATM are the cause of ataxia telangiectasia (AT), also known as Louis-Bar syndrome, a rare recessive disorder characterized by progressive cerebellar ataxia, dilation of the blood vessels in the conjunctiva and eyeballs, immunodeficiency, growth retardation and sexual immaturity. About 30% of AT patients develop lymphomas and leukemias. Defects in ATM also contribute to T-cell acute lymphoblastic leukemia (TALL) and T-prolymphocytic leukemia (TPLL). TPLL is characterized by a high white blood cell count, with a predominance of prolymphocytes, marked splenomegaly, lymphadenopathy, skin lesions and serous effusion. Defects in ATM also contribute to B-cell non-Hodgkin's lymphomas, and to B-cell chronic lymphocytic leukemia, a disease characterized by accumulation of mature CD5+ B lymphocytes, lymphadenopathy, immunodeficiency and bone marrow failure. Background: Serine/threonine protein kinase which activates checkpoint signaling upon double 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.
Product Categories/Family for anti-ATM antibody	Primary Antibodies; Cancer; Neuroscience
References	Suzuki, A., et al., J. Biol. Chem. 278 (1):48-53 (2003). Kishi, S., et al., J. Biol. Chem. 276 (31):29282-29291 (2001). Schaffner, C., et al., Proc. Natl. Acad. Sci. U.S.A. 97 (6):2773-2778 (2000). Gatei, M., et al., Nat. Genet. 25 (1):115-119 (2000). Becker-Catania, S.G., et al., Mol. Genet. Metab. 70 (2):122-133 (2000).

NCBI AND UNIPROT INFORMATION

NCBI GI #	71902540
NCBI GeneID	472
NCBI Accession #	NP_000042.3
NCBI GenBank Nucleotide #	NM_000051.3
UniProt Accession #	Q13315; O15429; Q12758; Q16551; Q93007; Q9NP02; Q9UCX7; B2RNX5
Molecular Weight	350687 Da
NCBI Official Full Name	serine-protein kinase ATM
NCBI Official Synonym Full Names	ATM serine/threonine kinase
NCBI Official Symbol	ATM
NCBI Official Synonym Symbols	AT1; ATA; ATC; ATD; ATE; ATDC; TEL1; TELO1
NCBI Protein Information	serine-protein kinase ATM
UniProt Protein Name	Serine-protein kinase ATM
UniProt Gene Name	ATM
UniProt Synonym Gene Names	A-T mutated
UniProt Entry Name	ATM_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/atm-antibody-immunohistochemistry-western-blot-elisa/290716>