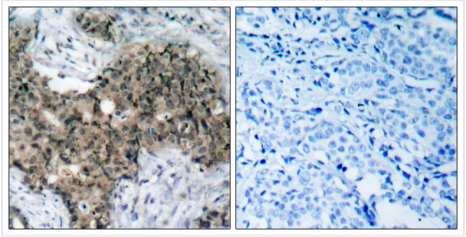
ATM Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ATM, Polyclonal Antibody
Full Product Name	ATM Antibody
Product Gene Name	anti-ATM antibody
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Purified from rabbit antiserum by affinity-chromatography using immunogen.
Concentration	1 mg/ml (lot specific)
Specificity	ATM Antibody detects endogenous levels of total ATM protein.
Preparation and Storage	Stable at -20 degree C for at least 1 year.
Molecular Weight	350 kDa
OMIM	U33841 mRNA
3D Structure	ModBase 3D Structure for Q13315
Target Modification	Unmodified/Total
Immunogen	The antiserum was produced against synthesized peptide derived from human ATM.
Immunogen Range	1950-1999
Applications Tested/Suitable for anti-ATM antibody	Immunohistochemistry (IHC), ELISA (EIA)
Application Notes for anti-ATM antibody	IHC: 1:50~1:100 ELISA: 1:40000
Related Product Information for anti-ATM antibody	MBS9504071 is an antibody targeting ATM. Also known as ATM Antibody. Reactive in Human, Mouse. Host: Rabbit.
Other Notes	Small volumes of anti-ATM antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Immunohistochemistry (IHC) of anti-ATM antibody
Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using ATM Antibody. The picture on the right is blocked with the synthesized peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ATM. It may not necessarily be applicable to this product.

NCBI GI #	71902540
NCBI GeneID	472
NCBI Accession #	NP_000042.3
UniProt Primary Accession #	Q13315
UniProt Secondary Accession #	O15429; Q12758; Q16551; Q93007; Q9NP02; Q9UCX7; B2RNX5
UniProt Related Accession #	Q13315
GenBank Nucleotide #	NM_000051.3
NCBI Official Full Name	serine-protein kinase ATM isoform a
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
UniProt Protein Name	Serine-protein kinase ATM
UniProt Synonym Protein Names	Ataxia telangiectasia mutated; A-T mutated
Protein Family	Serine-protein kinase
UniProt Gene Name	ATM
UniProt Synonym Gene Names	A-T mutated
NCBI Protein Information	serine-protein kinase ATM
NCBI Summary for ATM	The protein encoded by this gene belongs to the PI3/PI4-kinase family. This protein is an important cell cycle checkpoint kinase that phosphorylates; thus, it functions as a regulator of a wide variety of downstream proteins, including tumor suppressor proteins p53 and BRCA1, checkpoint kinase CHK2, checkpoint proteins RAD17 and RAD9, and DNA repair protein NBS1. This protein and the closely related kinase ATR are thought to be master controllers of cell cycle checkpoint signaling pathways that are required for cell response to DNA damage and for genome stability. Mutations in this gene are associated with ataxia telangiectasia, an autosomal recessive disorder. [provided by RefSeq, Aug 2010]
UniProt Comments for ATM	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.
Research Articles on ATM	**1.** Genomic profiling and exome sequencing identify ATM as a tumor suppressor gene and confirm that germline ATM mutations are involved in a subset of familial BC.

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