

## Recombinant Human ATM, GST-tagged

Cat. No. ATM-9987H    Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human ATM protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	1332-1479a.a.
<b>Description</b>	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.
<b>Storage</b>	The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.
<b>Storage Buffer</b>	1M PBS (58mM Na <sub>2</sub> HPO <sub>4</sub> , 17mM NaH <sub>2</sub> PO <sub>4</sub> , 68mM NaCl, pH8. ) added with 100mM GSH and 1% Triton X-100, 15% glycerol.

### GENE INFORMATION

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<b>Gene Name</b>	<a href="#">ATM ataxia telangiectasia mutated [ Homo sapiens ]</a>
<b>Official Symbol</b>	ATM
<b>Synonyms</b>	ATM; ataxia telangiectasia mutated; ATA, ataxia telangiectasia mutated (includes complementation groups A, C and D) , ATC, ATD, ATDC; serine-protein kinase ATM; TEL1; telomere maintenance 1; homolog (S. cerevisiae); TELO1; AT mutated; A-T mutated; TEL1, telomere maintenance 1, homolog; AT1; ATA; ATC; ATD; ATE; ATDC; MGC74674; DKFZp781A0353;
<b>Gene ID</b>	<a href="#">472</a>
<b>mRNA Refseq</b>	<a href="#">NM_000051</a>
<b>Protein Refseq</b>	<a href="#">NP_000042</a>
<b>MIM</b>	<a href="#">607585</a>
<b>UniProt ID</b>	<a href="#">Q13315</a>
<b>Chromosome Location</b>	11q22-q23
<b>Pathway</b>	ATM mediated phosphorylation of repair proteins, organism-specific biosystem; ATM mediated response to DNA double-strand break, organism-specific biosystem; Apoptosis, organism-specific biosystem; Apoptosis, conserved biosystem; Autodegradation of the E3 ubiquitin ligase COP1, organism-specific biosystem; BARD1 signaling events, organism-specific biosystem; BRCA1-associated genome surveillance complex (BASC), organism-specific biosystem;
<b>Function</b>	1-phosphatidylinositol-3-kinase activity; ATP binding; DNA binding; DNA-dependent

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protein kinase activity; histone serine kinase activity; nucleotide binding; protein N-terminus binding; protein binding; protein complex binding; protein dimerization activ

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