

# Anti-ATM (C-terminal region) Antibody

Catalog # AN1645

## Product Information

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<b>Application</b>	WB, FC, ICC, IP
<b>Primary Accession</b>	<a href="#">Q13315</a>
<b>Host</b>	Mouse
<b>Clonality</b>	Mouse Monoclonal
<b>Isotype</b>	IgG2b
<b>Clone Names</b>	M361
<b>Calculated MW</b>	350687

## Additional Information

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<b>Gene ID</b>	472
<b>Other Names</b>	ataxia telangiectasia mutated, AT1 ATDC TEL1 TELO1

<b>Target/Specificity</b>	Ataxia telangiectasia mutated kinase (ATM) is a serine/threonine kinase that regulates cell cycle checkpoints and DNA repair. Mutations of ATM cause a spectrum of defects ranging from neurodegeneration to cancer predisposition. Activation of ATM after DNA damage involves Cdk5 mediated phosphorylation of Ser-794 followed by autophosphorylation at Ser-1891. Active ATM kinase regulates a number of proteins involved in cell cycle checkpoint control, apoptosis and DNA repair. The Cdk5-ATM pathway regulates phosphorylation and function of the ATM targets p53 and H2AX in postmitotic neurons. Other known substrates of ATM include Chk2, Chk1, CtIP, 4E-BP1, BRCA1, RPA3, SMC1, FANCD2, Rad17, Artemis, Nbs1, and the I-2 regulatory subunit of PP1. Thus, activation of Cdk5 by DNA damage may be an important initiator of ATM-dependent regulation of cell cycle checkpoints.
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<b>Dilution</b>	WB~~1:1000 FC~~1:10~50 ICC~~N/A IP~~N/A
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<b>Format</b>	Protein A Purified
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<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
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<b>Precautions</b>	Anti-ATM (C-terminal region) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
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<b>Shipping</b>	Blue Ice
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## Background

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Ataxia telangiectasia mutated kinase (ATM) is a serine/threonine kinase that regulates cell cycle checkpoints and DNA repair. Mutations of ATM cause a spectrum of defects ranging from neurodegeneration to cancer predisposition. Activation of ATM after DNA damage involves Cdk5 mediated phosphorylation of Ser-794

followed by autophosphorylation at Ser-1891. Active ATM kinase regulates a number of proteins involved in cell cycle checkpoint control, apoptosis and DNA repair. The Cdk5-ATM pathway regulates phosphorylation and function of the ATM targets p53 and H2AX in postmitotic neurons. Other known substrates of ATM include Chk2, Chk1, CtIP, 4E-BP1, BRCA1, RPA3, SMC1, FANCD2, Rad17, Artemis, Nbs1, and the I-2 regulatory subunit of PP1. Thus, activation of Cdk5 by DNA damage may be an important initiator of ATM-dependent regulation of cell cycle checkpoints.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.