

Anti-ATM (Ser-794), Phosphospecific Antibody
Catalog # AN1646**Specification****Anti-ATM (Ser-794), Phosphospecific Antibody - Product Information**

| | |
|-------------------|------------------------|
| Application | WB, IHC |
| Primary Accession | Q13315 |
| Reactivity | Bovine |
| Host | Rabbit |
| Clonality | Rabbit Polyclonal |
| Isotype | IgG |
| Calculated MW | 350687 |

Anti-ATM (Ser-794), Phosphospecific Antibody - Additional Information

Gene ID 472

Other Names

ataxia telangiectasia mutated, AT1 ATDC TEL1 TELO1

Target/Specificity

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.

Dilution

WB~~1:1000

IHC~~1:100~500

Format

Antigen Affinity Purified

Storage

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.

Precautions

Anti-ATM (Ser-794), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

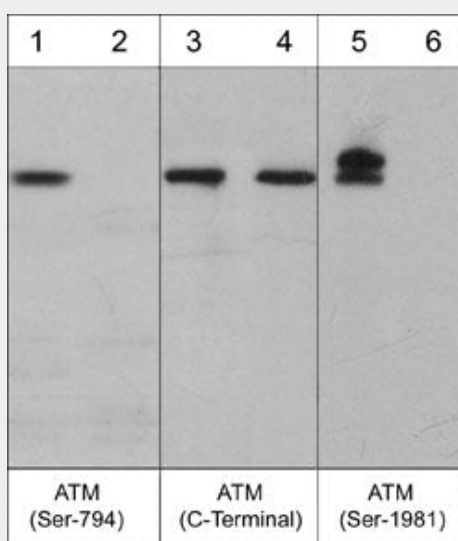
Blue Ice

Anti-ATM (Ser-794), Phosphospecific Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-ATM (Ser-794), Phosphospecific Antibody - Images



Immunocytochemical labeling of ATM phosphorylation in calyculin A-treated A431 cells. The cells were labeled with rabbit polyclonal anti-ATM (Ser-794) (AP3631) antibody in the absence (Left) or presence (Right) of blocking peptide (AX3635). The antibody was detected using appropriate secondary antibody conjugated to DyLight® 594.

Anti-ATM (Ser-794), Phosphospecific Antibody - Background

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.