



Datasheet for ABIN389888

## anti-ATM antibody (pSer1981)



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### Overview

Quantity:	400 µL
Target:	ATM
Binding Specificity:	pSer1981
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ATM antibody is un-conjugated
Application:	Immunofluorescence (IF), Dot Blot (DB)

### Product Details

Immunogen:	This Phospho-ATM-pS1981 antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S1981 of human ATM.
Clone:	RB8121
Isotype:	Ig Fraction
Purification:	This antibody is purified through a protein A column, followed by peptide affinity purification.

### Target Details

Target:	ATM
Alternative Name:	ATM ( <a href="#">ATM Products</a> )

## Target Details

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Background:	ATM 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. ATM 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 the gene encoding ATM are associated with ataxia telangiectasia, an autosomal recessive disorder.
Molecular Weight:	350687
Gene ID:	472
NCBI Accession:	<a href="#">NP_000042</a>
UniProt:	<a href="#">Q13315</a>
Pathways:	<a href="#">p53 Signaling</a> , <a href="#">Apoptosis</a> , <a href="#">DNA Damage Repair</a> , <a href="#">Inositol Metabolic Process</a> , <a href="#">Positive Regulation of Response to DNA Damage Stimulus</a>

## Application Details

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Application Notes:	IF: 1:10~50. DB: 1:500
Restrictions:	For Research Use only

## Handling

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Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C, -20 °C
Storage Comment:	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.
Expiry Date:	6 months

## Publications

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Product cited in:

Schwab, Sison, Meade, Broniowska, Corbett, Ebert: "Decreased Sirtuin Deacetylase Activity in LRRK2 G2019S iPSC-Derived Dopaminergic Neurons." in: **Stem cell reports**, Vol. 9, Issue 6, pp. 1839-1852, (2018) ([PubMed](#)).

Takumida, Takumida, Katagiri, Anniko: "Localization of sirtuins (SIRT1-7) in the aged mouse inner ear." in: **Acta oto-laryngologica**, pp. 1-12, (2015) ([PubMed](#)).

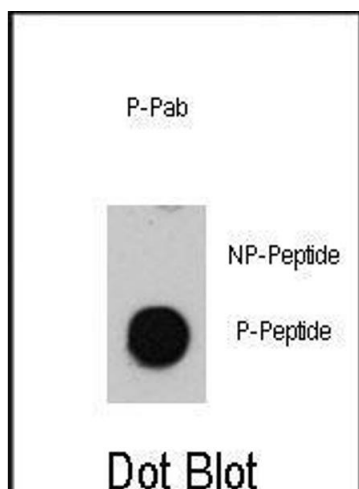
He, Hu, Shi, Weidert, Lu, Xu, Huang, Kelley, Xie: "Activation of the aryl hydrocarbon receptor sensitizes mice to nonalcoholic steatohepatitis by deactivating mitochondrial sirtuin deacetylase Sirt3." in: **Molecular and cellular biology**, Vol. 33, Issue 10, pp. 2047-55, (2013) ([PubMed](#)).

Kamarajan, Alhazzazi, Danciu, Dsilva, Verdin, Kapila: "Receptor-interacting protein (RIP) and Sirtuin-3 (SIRT3) are on opposite sides of anoikis and tumorigenesis." in: **Cancer**, Vol. 118, Issue 23, pp. 5800-10, (2012) ([PubMed](#)).

Parker, Vazquez-Manrique, Tourette, Farina, Offner, Mukhopadhyay, Orfila, Darbois, Menet, Tissenbaum, Neri: "Integration of  $\beta$ -catenin, sirtuin, and FOXO signaling protects from mutant huntingtin toxicity." in: **The Journal of neuroscience : the official journal of the Society for Neuroscience**, Vol. 32, Issue 36, pp. 12630-40, (2012) ([PubMed](#)).

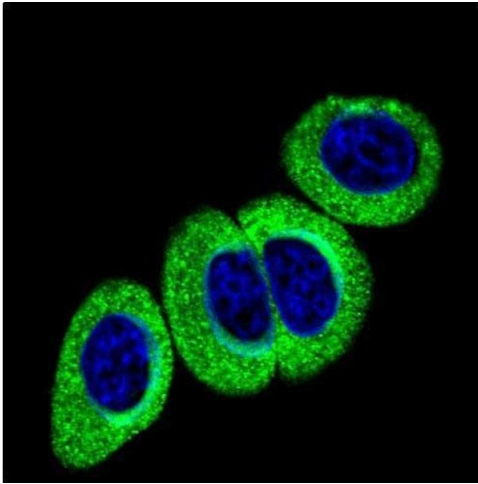
## Images

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### Dot Blot

**Image 1.** Dot blot analysis of anti-Phospho-ATM-p Antibody (ABIN389888 and ABIN2839734) on nitrocellulose membrane. 50 ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5  $\mu$ g per ml.



### Immunofluorescence

**Image 2.** Confocal immunofluorescent analysis of Phospho-ATM-p Antibody (ABIN389888 and ABIN2839734) with HeLa cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).