

ATM(Phospho-Ser1981) Antibody

Catalog No: #11122

Package Size: #11122-1 50ul #11122-2 100ul

Description

Product Name	ATM(Phospho-Ser1981) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Applications	WB IHC
Species Reactivity	Hu
Specificity	The antibody detects endogenous level of ATM only when phosphorylated at serine 1981.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of serine 1981 (E-G-S(p)-Q-S) derived from Human ATM.
Conjugates	Unconjugated
Target Name	ATM
Modification	Phospho
Other Names	Ataxia telangiectasia mutated homolog; Ataxia telangiectasia mutated; kinase ATM
Accession No.	Swiss-Prot: Q13315NCBI Protein: NP_000042.3
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.

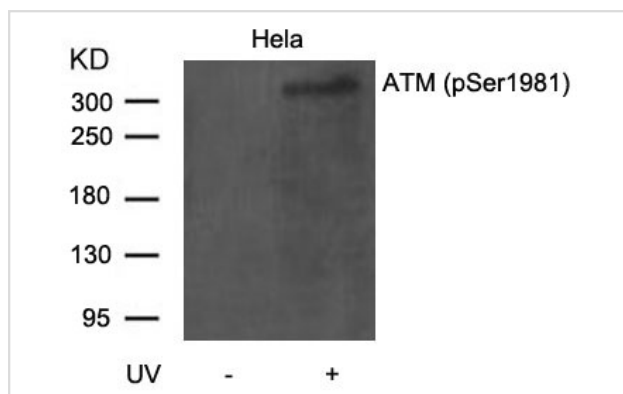
Application Details

Predicted MW: 350kd

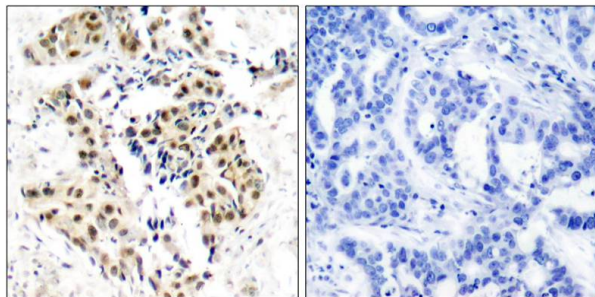
Western blotting: 1:500~1:1000

Immunohistochemistry: 1:50~1:100

Images



Western blot analysis of extracts from HeLa cells untreated or treated with UV using ATM(Phospho-Ser1981) Antibody #11122



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using ATM(Phospho-Ser1981) Antibody #11122(left) or the same antibody preincubated with blocking peptide(right).

Background

ATM 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. Two transcript variants encoding different isoforms have been found for this gene.

Gupta A. et al. (2005) Mol Cell Biol. 25(12): 5292-5305.

Bernstein JL. et al. (2002) Breast Cancer Res. 4(6): 249-252.

Silverman J. et al. (2004) Genes Dev. 18(17): 2108-2119.

Nakada D. et al. (2003) Nucleic Acids Res. 31(6): 1715-1724.

Published Papers

Bin Kang ,Ruifang Guo, Xiao-hui Tian et al., Expression status of ataxia telangiectasia mutated gene coorelated with Prognosis in advanced gastric cancer, Mutation Research, 638: 17-25(2008)

[PMID:17928013](#)

Dashayini Mahalingam, Ling L. Tay, Wei H. Tan et al., Mutant telomerase RNAs induce DNA damage and apoptosis via the TRF2-ATM pathway in telomerase-overexpressing primary fibroblasts. , FEBS Journal, 278:3724η— C3738(2011)

[PMID:21824286](#)

Hiroaki Inaba, Masae Kuboniwa, Hideyuki Sugita et al., Identification of Signaling Pathways Mediating Cell Cycle Arrest and Apoptosis Induced by Porphyromonas gingivalis in Human Trophoblasts, Infect., Infect Immun, 80(8):2847-2857(2012)

[PMID:22689813](#)

J Leemput, C Masson, K Bigot et al., ATM localization and gene expression in the adult mouse eye., Molecular Vision, 15: 393η— C416(2009)

[PMID:19234633](#)

et al., ATM localization and gene expression in the adult mouse eye. In Mol Vis on 2009 by Julia Leemput, Christel Masson, et al..PMID:19234633, , (2009)

[PMID:19234633](#)

et al., Mutant telomerase RNAs induce DNA damage and apoptosis via the TRF2η ζ TM pathway in telomeraseη ζ verexpressing primary fibroblasts. In FEBS J on 2011 Oct by Ling L Tay, Wei H Tan, et al..PMID: 21824286

, , (2011)

[PMID:21824286](#)

Note: This product is for in vitro research use only and is not intended for use in humans or animals.