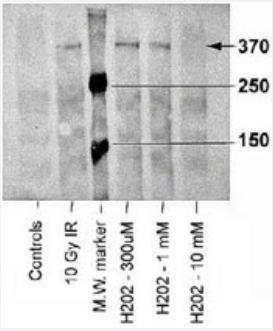
ATM (phospho S1981) monoclonal antibody, clone 10H11.E12

Catalog # MAB2401 Size 100 uL

Applications



Western Blot (Cell lysate)

Western blot analysis of ATM on irradiated or peroxidated human fibroblasts using ATM monoclonal antibody, clone 10H11.E12 (Cat # MAB2401).

Specification

Product Description	Mouse monoclonal antibody raised against synthetic phosphopeptide of ATM.
Immunogen	Synthetic phosphopeptide corresponding to residues surrounding S1981 of human ATM.
Host	Mouse
Reactivity	Human, Mouse, Rat
Specificity	This antibody is specific to the human ATM kinase.
Form	Liquid
Isotype	IgG1, kappa
Quality Control Testing	Antibody Reactive Against Synthetic Peptide.
Recommend Usage	Immunocytochemistry (1:1000) Western Blot (1:1000) The optimal working dilution should be determined by the end user.
Storage Buffer	In buffer containing 0.05% sodium azide

Storage Instruction	Store at -20°C or -80°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

- Western Blot (Cell lysate)

  Western blot analysis of ATM on irradiated or peroxidated human fibroblasts using ATM monoclonal antibody, clone 10H11.E12 (Cat # MAB2401).

- Immunocytochemistry

Gene Info — ATM

Entrez GeneID	472
Gene Name	ATM
Gene Alias	AT1, ATA, ATC, ATD, ATDC, ATE, DKFZp781A0353, MGC74674, TEL1, TELO1
Gene Description	ataxia telangiectasia mutated
Omim ID	114480 208900 607585
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene belongs to the PI3/PI4-kinase family. This protein is an importa nt cell cycle checkpoint kinase that phosphorylates; thus, it functions as a regulator of a wide variet y of downstream proteins, including tumor suppressor proteins p53 and BRCA1, checkpoint kinas e 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 signali ng pathways that are required for cell response to DNA damage and for genome stability. Mutatio ns in this gene are associated with ataxia telangiectasia, an autosomal recessive disorder. Two tr anscript variants encoding different isoforms have been found for this gene. [provided by RefSeq
Other Designations	AT mutated|TEL1, telomere maintenance 1, homolog|ataxia telangiectasia mutated (includes com plementation groups A, C and D)|ataxia telangiectasia mutated protein|human phosphatidylinosit ol 3-kinase homolog|serine-protein kinase ATM

Publication Reference

- Heterogeneous nuclear ribonucleoprotein E1 binds polycytosine DNA and monitors genome integrity.

  Bidyut K Mohanty, Joseph Aq Karam, Breege V Howley, Annamarie C Dalton, Simon Grelet, Toros Dincman, William S Streitfeld, Je-Hyun Yoon, Lata Balakrishnan, Walter J Chazin, David T Long, Philip H Howe.

  Life Science Alliance 2021 Jul; 4(9):e202000995.

  Application: WB, Human, Monkey, A549, NMuMG cells

- HPV-16 E7 reveals a link between DNA replication stress, fanconi anemia D2 protein, and alternative lengthening of telomere-associated promyelocytic leukemia bodies.

  Spardy N, Duensing A, Hoskins EE, Wells SI, Duensing S.

  Cancer Research 2008 Dec; 68(23):9954.

- Foxo3 is essential for the regulation of ataxia telangiectasia mutated and oxidative stress-mediated homeostasis of hematopoietic stem cells.

  Yalcin S, Zhang X, Luciano JP, Mungamuri SK, Marinkovic D, Vercherat C, Sarkar A, Grisotto M, Taneja R, Ghaffari S.

  The Journal of Biological Chemistry 2008 Sep; 283(37):25692.

  Application: IF, Mouse, LSK cells

- Defective S phase chromatin assembly causes DNA damage, activation of the S phase checkpoint, and S phase arrest.

  Ye X, Franco AA, Santos H, Nelson DM, Kaufman PD, Adams PD.

  Molecular Cell 2003 Feb; 11(2):341.

Pathway

- Apoptosis
- Cell cycle
- p53 signaling pathway

Disease

- Acute Disease
- Adenocarcinoma
- Ataxia telangiectasia
- Atherosclerosis

- Brain Neoplasms
- Breast cancer
- Breast Neoplasms
- Carcinoma
- Cardiovascular Diseases
- Chromosome Aberrations
- Cocarcinogenesis
- Colorectal Neoplasms
- Diabetes Mellitus
- DNA Damage
- Edema
- Endometrial Neoplasms
- Esophageal Neoplasms
- Fibrosis
- Genetic Predisposition to Disease
- Glioma
- Hodgkin Disease
- Hypercholesterolemia
- Hypertension
- Kidney Failure
- Leukemia
- Lung Neoplasms
- Lymphatic Metastasis
- Lymphoma
- Meningeal Neoplasms
- Meningioma

- Micronuclei
- Mouth Neoplasms
- Neoplasms
- Ovarian cancer
- Ovarian Neoplasms
- Pancreatic cancer
- Pancreatic Neoplasms
- Precancerous Conditions
- Prostate cancer
- Prostatic Neoplasms
- Pulmonary Disease
- Radiation Injuries
- Radiation Pneumonitis
- Radiodermatitis
- Schizophrenia
- Silicosis
- Small Cell Lung Carcinoma
- Spinocerebellar ataxia
- Urinary Bladder Neoplasms
- Werner syndrome