Datasheet for ABIN685582

anti-ATM antibody (AA 2681-2750)

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Overview

Quantity:	100 µL
Target:	ATM
Binding Specificity:	AA 2681-2750
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ATM antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunofluorescence (Cultured Cells) (IF (cc)), Flow Cytometry (FACS), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from mouse ATM
Isotype:	IgG
Cross-Reactivity:	Human, Mouse
Predicted Reactivity:	Rat
Purification:	Purified by Protein A.

Target Details

Target:	ATM

Target Details

Alternative Name:	ATM (ATM Products)
Background:	Synonyms: AI256621, C030026E19Rik, Serine-protein kinase ATM, Ataxia telangiectasia mutated homolog, A-T mutated homolog, Atm Background: Serine/threonine protein kinase which activates checkpoint signaling upon double strand breaks (DSBs), apoptosis and genotoxic stresses such as ionizing ultraviolet A light (UVA), thereby acting as a DNA damage sensor. Recognizes the substrate consensus sequence [ST]-Q. Phosphorylates 'Ser-139' of histone variant H2AX/H2AFX at double strand breaks (DSBs), thereby regulating DNA damage response mechanism. Also plays a role in pre-B cell allelic exclusion, a process leading to expression of a single immunoglobulin heavy chain allele to enforce clonality and monospecific recognition by the B-cell antigen receptor (BCR) expressed on individual B-lymphocytes. After the introduction of DNA breaks by the RAG complex on one immunoglobulin allele, acts by mediating a repositioning of the second allele to pericentromeric heterochromatin, preventing accessibility to the RAG complex and recombination of the second allele. Also involved in signal transduction and cell cycle control. May function as a tumor suppressor. Necessary for activation of ABL1 and SAPK. Phosphorylates DYRK2, CHEK2, p53/TP53, FANCD2, NFKBIA, BRCA1, CTIP, nibrin (NBN), TERF1, RAD9 and DCLRE1C. May play a role in vesicle and/or protein transport. Could play a role in T-cell development, gonad and neurological function. Binds DNA ends. Plays a role in replication-dependent histone mRNA degradation. Phosphorylation of DYRK2 in nucleus in response to genotoxic stress prevents its MDM2-mediated ubiquitination and subsequent proteasome degradation. Phosphorylates ATF2 which stimulates its function in DNA damage response.
Gene ID:	11920
UniProt:	Q62388
Pathways:	p53 Signaling, Apoptosis, DNA Damage Repair, Inositol Metabolic Process, Positive Regulation of Response to DNA Damage Stimulus

Application Details

Application Notes:	WB 1:300-5000 ELISA 1:500-1000 FCM 1:20-100 IHC-P 1:200-400 IHC-F 1:100-500 IF(IHC-P) 1:50-200

Application Details

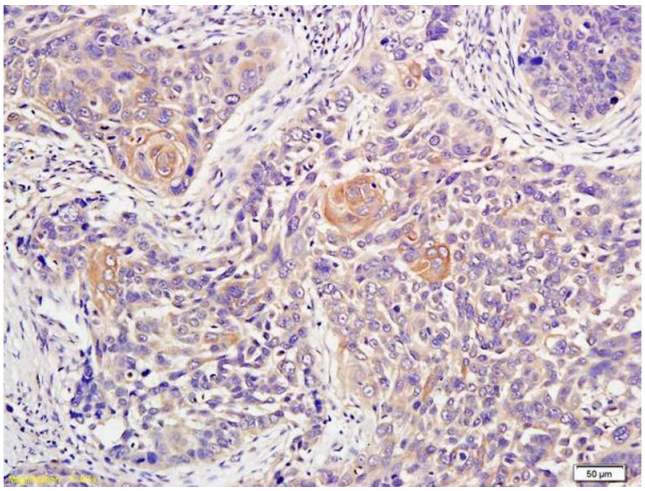
	IF(IHC-F) 1:50-200 IF(ICC) 1:50-200
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 μg/μL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

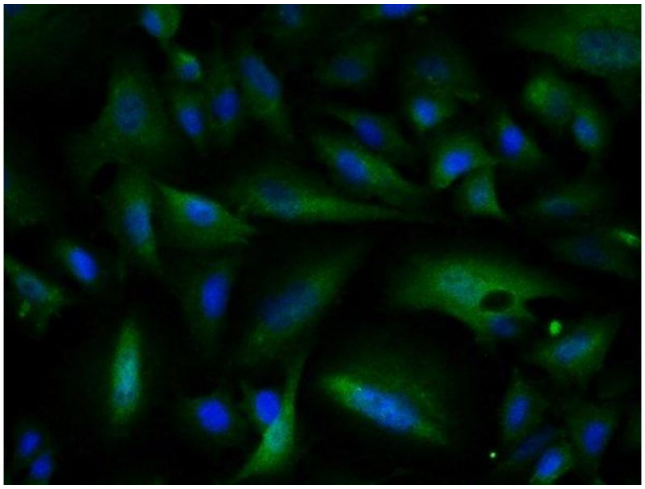
Publications

Product cited in:	Liu, Yang, Jing, Ren, Wei, Zhang, Zhang, Duan, Zhou, Sun: "Silica nanoparticle exposure inducing granulosa cell apoptosis and follicular atresia in female Balb/c mice." in: **Environmental science and pollution research international**, Vol. 25, Issue 4, pp. 3423-3434, (2018) (PubMed).



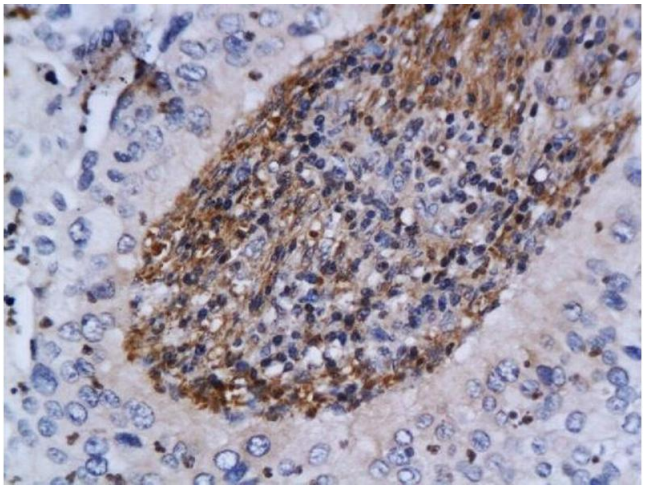
Immunohistochemistry

Image 1. Formalin-fixed and paraffin embedded human lung carcinoma labeled with Anti-ATM Polyclonal Antibody, Unconjugated (ABIN685582) at 1:200 followed by conjugation to the secondary antibody and DAB staining



Immunofluorescence (Cultured Cells)

Image 2. Image provided by One World Lab validation program. A549 cells probed with Rabbit Anti-ATM Polyclonal Antibody at 1:50 for 60 minutes at room temperature followed by Goat Anti-Rabbit IgG (H+L) Alexa Fluor 488 Conjugated secondary antibody.



Immunohistochemistry

Image 3. Formalin-fixed and paraffin embedded human cervical cancer labeled with Anti-ATM Polyclonal Antibody, Unconjugated (ABIN685582) at 1:200 followed by conjugation to the secondary antibody and DAB staining

