

Product Datasheet

ATM (9F7) Mouse mAb

Catalog No: AB3609

Reactivity: Human, Mouse, Rat

Isotype: Mouse IgG1

Applications: IHC



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Information

UniProt ID: Q13315

All Names: ATM; Serine-protein kinase ATM; Ataxia telangiectasia mutated; A-T mutated

Form: Liquid

Storage instructions: Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Storage buffer: pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.

Purity: Affinity-chromatography

Immunogen: Synthetic peptide conjugated to KLH.

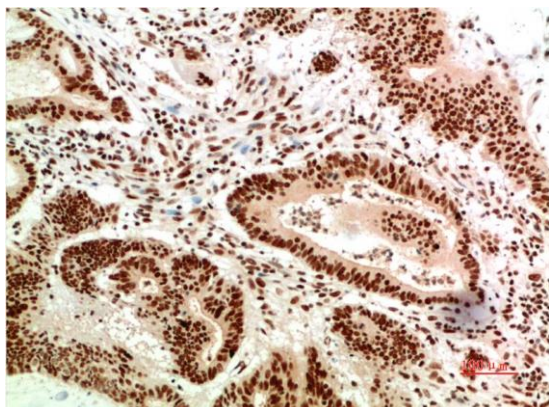
Molecular Wt.: 350kDa

Application

IHC: 1/50-1/100

Background

Swiss-Prot Acc.Q13315.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.



Immunohistochemistry analysis of paraffinembedded Human Colon Carcinoma Tissue using ATM (9F7) antibody.

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