



Affinity-Purified Rabbit Anti-phospho-ATM (S1981) Antibody

Specificity: Human phospho-ATM (S1981)	Size: 0.1 mg
Source: Rabbit	IgG Type: rabbit IgG

Background:

Serine/threonine protein kinase which activates checkpoint signaling upon double strand breaks (DSBs), apoptosis and genotoxic stresses such as ionizing radiation and ultraviolet A light (UVA), thereby acting as a DNA damage sensor. Recognizes the substrate consensus sequence [S/T-Q]. Phosphorylates 'Ser-139' of histone H2AX/H2AFX at double strand breaks (DSBs), thereby regulating DNA damage response mechanism. Also involved in signal transduction and cell cycle control. May function as a tumor suppressor. Necessary for activation of ABL1 and SAPK. Phosphorylates p53/TP53, FANCD2, NFKBIA, BRCA1, CTIP, NBN (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 neurologic function.

Other Name: Serine-protein kinase ATM

Specificity:

Human: Positive

Application : For western blot analysis, an antibody concentration of 1 µg/ml is recommended

ELISA	Positive
Western blotting	Positive 1 mg/ml
Immunohistochemistry	Positive
Immunoprecipitation	Positive
Flow cytometry	Positive

Isotype: Rabbit IgG

Description: This antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding the phospho sites.

Storage: Upon reconstitution, maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C to -70°C. Lyophilized samples are stable for twelve months from the date of receipt when stored at -20°C to -70°C

Format: Purified rabbit monoclonal antibody supplied in PBS with 0.02% (W/V) sodium azide. This antibody is first purified by protein G affinity chromatography. Then, the antibody fraction is peptide affinity purified in a 2-step procedure with the control and phosphorylated peptides. The phospho-specific antibody is eluted with high and low salt and neutralized immediately, followed by dialysis against PBS.

Precautions: This product is for research use only. Not for use in diagnostic or therapeutic procedures.

References:

1. [Lichter P.](#); "Mantle cell lymphoma is characterized by inactivation of the ATM gene."; [Proc. Natl. Acad. Sci. U.S.A. 97:2773-2778\(2000\)](#).
2. [Doerk T.](#); "Missense mutations at ATM gene and cancer risk."; [Lancet 353:1276-1276\(1999\)](#).
3. [Schindler D.](#); "Characterization of ATM gene mutations in 66 ataxia telangiectasia families."; [Hum. Mol. Genet. 8:69-79\(1999\)](#).