Human Phospho-SMC1 (S966) Antibody

Antigen Affinity-purified Polyclonal Rabbit IgG
Catalog Number: AF2677

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SMC1 when phosphorylated at S966.
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	Phosphopeptide containing human SMC1 S966 site
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

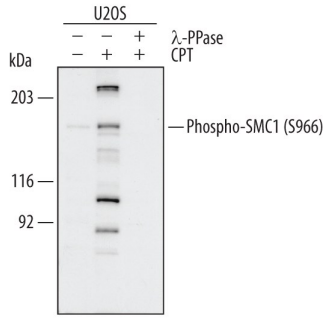
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.5 µg/mL	See Below

DATA

Western Blot



Detection of Human Phospho-SMC1 (S966) by Western Blot. Western blot shows lysates of U2OS human osteosarcoma cell line untreated (-) or treated (+) with 1 µM camptothecin (CPT) for 4 hours. PVDF membrane was probed with 0.5 µg/mL Rabbit Anti-Human Phospho-SMC1 (S966) Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2677) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band for Phospho-SMC1 (S966) was detected at approximately 145 kDa (as indicated). The phospho-specificity of this antibody was supported by decreased labeling following treatment with 600 U lambda-phosphatase (lambda-PPase). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The ATM protein kinase phosphorylates the structural maintenance of chromosomes (SMC1) protein in cells exposed to genotoxins. Overexpression of a non-phosphorylatable mutant of SMC1 subjects a cell to a defective S phase checkpoint and decreased cell survival in response to genotoxic stress. In cells expressing this mutant SMC1, BRCA1 and Nbs1 are still phosphorylated, a fact that suggests SMC1 phosphorylation is downstream of these other phosphorylation events.

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