

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat Chk1 when phosphorylated at S317 in Western blots. Does not recognize Chk1 when unphosphorylated at S317.
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	Phosphopeptide containing human Chk1 S317 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	1 µg/mL	See Below
Simple Western	10 µg/mL	See Below

DATA

Western Blot

Detection of Human Phospho-Chk1 (S317) by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line untreated (-) or exposed (+) to 50 J/m² UV-C for the indicated time. PVDF membrane was probed with 1 µg/mL Rabbit Anti-Human/Mouse/Rat Phospho-Chk1 (S317) Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2054) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band for Phospho-Chk1 (S317) was detected at approximately 56 kDa (as indicated). The phospho-specificity of this antibody was supported by decreased labeling following treatment with 600 U λ-phosphatase (λ-PPase) for 1 hour. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western

Detection of Human Phospho-Chk1 (S317) by Simple Western™. Simple Western lane view shows lysates of HeLa human cervical epithelial carcinoma cell line untreated (-) or treated (+) with 50 J/m² ultraviolet light (UV) for 2 hours, loaded at 0.2 mg/mL. A specific band was detected for Phospho-Chk1 (S317) at approximately 60 kDa (as indicated) using 10 µg/mL of Rabbit Anti-Human/Mouse/Rat Phospho-Chk1 (S317) Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2054). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 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 Chk1 checkpoint kinase is an integral member of a signaling cascade that controls cell cycle progression. In response to genotoxic or replicative stress, Chk1 is phosphorylated by ATM or ATM-related kinases (ATR) at S317. In turn, Chk1 phosphorylates downstream effectors, such as p53 or the Cdc25 phosphatases to halt cell cycle progression and allow time for repair of incurred damage.