Human Phospho-Chk2 (T68) Antibody

Recombinant Monoclonal Rabbit IgG Clone # 1238H
Catalog Number: MAB1626

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Chk2 when phosphorylated at T68 in direct ELISAs and Western blots.
Source	Recombinant Monoclonal Rabbit IgG Clone # 1238H
Purification	Protein A or G purified from cell culture supernatant
Immunogen	*E.coli*-derived recombinant human Phospho-Chk2 (T68) Accession # O96017
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.

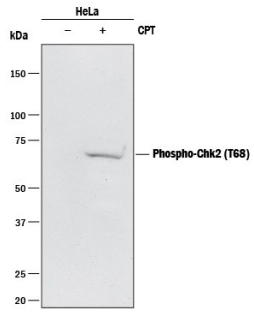
APPLICATIONS

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	2 µg/mL	See Below
Immunocytochemistry	2-25 µg/mL	See Below

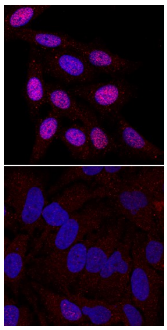
DATA

Western Blot



Detection of Human Chk2 by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line untreated (-) or treated (+) with 1 µM Camptothecin (CPT) for 5 hours. PVDF membrane was probed with 2 µg/mL of Rabbit Anti-Human Phospho-Chk2 (T68) Monoclonal Antibody (Catalog # MAB1626) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # Catalog # HAF008). A specific band was detected for Chk2 at approximately 68 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



Phospho-Chk2 (T68) in HeLa Human Cell Line. Chk2 phosphorylated at T68 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line unstimulated (lower panel) or stimulated with 1 µM Camptothecin (upper panel) using Rabbit Anti-Human Phospho-Chk2 (T68) Monoclonal Antibody (Catalog # MAB1626) at 2 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to nuclei (upper panel). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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.** • 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

Serine/threonine-protein kinase Chk2 (CHEK2) is a 65 kDa member of Serine/threonine-protein kinase family of proteins. Chk2 regulates cell cycle checkpoint arrest through phosphorylation of CDC25A, CDC25B and CDC25C. Inhibition of CDC25 phosphatase activity leads to increased inhibitory tyrosine phosphorylation of CDK-cyclin complexes and blocks cell cycle progression. Chk2 is required for checkpoint-mediated cell cycle arrest, activation of DNA repair and apoptosis in response to the presence of DNA double-strand breaks.Existence of multiple splice variants of Chk2 is predicted. Human Chk2 shares 86% aa sequence identity with mouse Chk2.

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