

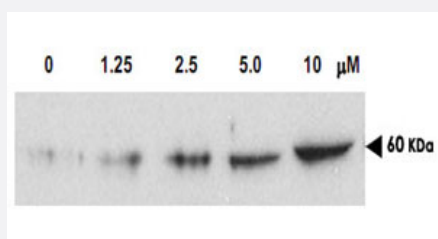
CHEK2 (phospho T68) polyclonal antibody

Catalog # PAB10034

Size 100 ug

Applications

Western Blot (Cell lysate)



Western blot using CHEK2 (phospho T68) polyclonal antibody (Cat # PAB10034) shows detection of a predominant band at ~60 kDa corresponding to phosphorylated CHEK2 (arrowhead) in MCF-7 whole cell lysates after treatment with doxorubicin.

CHEK2 phosphorylation was induced using increasing concentrations of the DNA damaging agent doxorubicin as indicated for 24 h prior to lysate production.

Personal communication, Xiao HeYang, University of Oklahoma Health Sciences Center.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic phosphopeptide of CHEK2.
Immunogen	Synthetic phosphopeptide corresponding to residues surrounding T68 of human CHEK2.
Host	Rabbit
Reactivity	Chimpanzee, Human
Specificity	Reactivity occurs against human CHK2 pT68 protein and This antibody is specific to the phosphorylated form of the protein. Reactivity with non-phosphorylated human CHK2 is minimal by ELISA. This antibody does not cross-react with Chk2 phosphorylated at other sites.
Form	Liquid
Quality Control Testing	Antibody Reactive Against Synthetic Peptide.
Recommend Usage	ELISA (1:10000-1:50000) Western Blot (1:200-1:2000) The optimal working dilution should be determined by the end user.

Storage Buffer	In 20 mM KH ₂ PO ₄ , 150 mM NaCl, pH 7.2 (0.01% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

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- Immunoprecipitation

- Enzyme-linked Immunoabsorbent Assay

Gene Info — CHEK2

Entrez GeneID	11200
Protein Accession#	O96017
Gene Name	CHEK2
Gene Alias	CDS1, CHK2, HuCds1, LFS2, PP1425, RAD53
Gene Description	CHK2 checkpoint homolog (S. pombe)
Omim ID	114480 176807 259500 604373 609265
Gene Ontology	Hyperlink

Gene Summary

In response to DNA damage and replication blocks, cell cycle progression is halted through the control of critical cell cycle regulators. The protein encoded by this gene is a cell cycle checkpoint regulator and putative tumor suppressor. It contains a forkhead-associated protein interaction domain essential for activation in response to DNA damage and is rapidly phosphorylated in response to replication blocks and DNA damage. When activated, the encoded protein is known to inhibit CDC25C phosphatase, preventing entry into mitosis, and has been shown to stabilize the tumor suppressor protein p53, leading to cell cycle arrest in G1. In addition, this protein interacts with and phosphorylates BRCA1, allowing BRCA1 to restore survival after DNA damage. Mutations in this gene have been linked with Li-Fraumeni syndrome, a highly penetrant familial cancer phenotype usually associated with inherited mutations in TP53. Also, mutations in this gene are thought to confer a predisposition to sarcomas, breast cancer, and brain tumors. This nuclear protein is a member of the CDS1 subfamily of serine/threonine protein kinases. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq]

Other Designations

OTTHUMP00000028871|checkpoint-like protein CHK2|protein kinase CHK2|serine/threonine-protein kinase CHK2

Publication Reference

- [A human Cds1-related kinase that functions downstream of ATM protein in the cellular response to DNA damage.](#)

Brown AL, Lee CH, Schwarz JK, Mitiku N, Piwnica-Worms H, Chung JH.

PNAS 1999 Mar; 96(7):3745.

Application: WB-Ce, WB-Tr, Human, HEK 293, HeLa cells

- [A human homologue of the checkpoint kinase Cds1 directly inhibits Cdc25 phosphatase.](#)

Blasina A, de Weyer IV, Laus MC, Luyten WH, Parker AE, McGowan CH.

Current Biology 1999 Jan; 9(1):1.

- [Linkage of ATM to cell cycle regulation by the Chk2 protein kinase.](#)

Matsuoka S, Huang M, Elledge SJ.

Science 1998 Dec; 282(5395):1893.

Pathway

- [Cell cycle](#)
- [p53 signaling pathway](#)

Disease

- [Adenocarcinoma](#)
- [Adenoma](#)
- [Ataxia telangiectasia](#)
- [Atherosclerosis](#)
- [Barrett Esophagus](#)
- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Carcinoma](#)
- [Cell Transformation](#)
- [Colon cancer](#)
- [Colonic Neoplasms](#)
- [Colorectal Neoplasms](#)
- [DNA Damage](#)
- [Endometrial Neoplasms](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Glioma](#)
- [Head and Neck Neoplasms](#)
- [Hypertension](#)
- [Kidney Diseases](#)
- [Kidney Failure](#)
- [Kidney Neoplasms](#)
- [Laryngeal Neoplasms](#)

- [Leukemia](#)
- [Lung Neoplasms](#)
- [Malignant melanoma](#)
- [Melanoma](#)
- [Meningeal Neoplasms](#)
- [Meningioma](#)
- [Mouth Neoplasms](#)
- [Neoplasm Invasiveness](#)
- [Neoplasm Metastasis](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Neoplastic Syndromes](#)
- [Neuroma](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Pharyngeal Neoplasms](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Pulmonary Disease](#)
- [Skin Neoplasms](#)
- [Urinary Bladder Neoplasms](#)
- [Werner syndrome](#)