

## Serine/threonine-Protein Kinase Chk2 (CHK2) Antibody

Catalogue No.:abx010556



Western blot analysis using CHK2 antibody against cell lysate from various cell types.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma (A), liver carcinoma (B), breast carcinoma (C) and kiney carcinoma (D), showing nuclear localization with DAB staining using CHK2 antibody.



Confocal immunofluorescence analysis of Hela cells using CHK2 antibody (green), showing nuclear localization. Red: Actin filaments have been labeled with DY-554 phalloidin.

CHK2: CHK2 checkpoint homolog (S. pombe). 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.

Target:	Serine/threonine-Protein Kinase Chk2 (CHK2)
Clonality:	Monoclonal
Reactivity:	Human

Datasheet Version: 2.0.0 Revision date: 05 Mar 2025



Tested Applications:	ELISA, WB, IHC, IF/ICC
Host:	Mouse
Recommended dilutions:	ELISA: 1/10000, WB: 1/500 - 1/2000, IHC: 1/200 - 1/1000, IF/ICC: 1/200 - 1/1000. Optimal dilutions/concentrations should be determined by the end user.
Conjugation:	Unconjugated
Immunogen:	Purified recombinant fragment of human CHK2 (aa481-531) expressed in E. coli.
Isotype:	IgG <sub>2b</sub>
Form:	Liquid
Purification:	Unpurified ascites.
Storage:	Aliquot and store at -20°C. Avoid repeated freeze/thaw cycles.
UniProt Primary AC:	O96017 ( <u>UniProt</u> , <u>ExPASy</u> )
Gene Symbol:	CHEK2
GenelD:	11200
OMIM:	114480
HGNC:	16627
KEGG:	hsa:11200
Ensembl:	ENSG00000183765
String:	9606.ENSP00000372023
Molecular Weight:	61 kDa
Buffer:	Ascitic fluid containing 0.03% sodium azide.
Concentration:	Not determined.
Note:	THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC, THERAPEUTIC OR COSMETIC PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION.