BT LAB
Bioassay Technology Laboratory
Optimize Your Research

CHK2 Monoclonal Antibody

Description

Product type	Antibody
Code	BT-MCA3966
Host	Mouse
Isotype	Mouse IgG2b
Size	100μL, 50μL
Immunogen	Purified recombinant fragment of human CHK2 (aa481-531) expressed in E. Coli.
Mol wt	61kDa
Species reactivity	Human
Clonality	Monoclonal
Recommended application	WB,IHC,ICC
Concentration	N/A
Full name	N/A
Synonyms	CDS1;LFS2;CHEK2

This product is for research use only, not for use in human, therapeutic or diagnostic procedure.

Background

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.

Recommended Dilution

WB: 1:500 - 1:2000

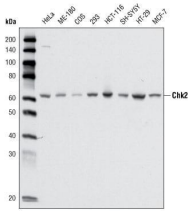
IHC-p: 1:200 - 1:1000

ICC: 1:200 - 1:1000

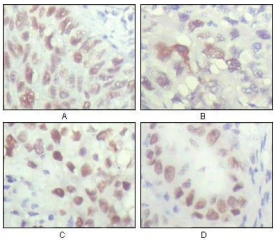
ELISA: 1:10000

Not yet tested in other applications.

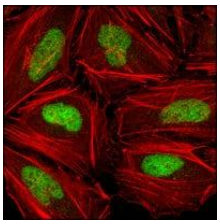
Images



Western blot analysis using CHK2 mouse mAb 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 mouse mAb.



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

Storage

Store at 4°C short term. Aliquot and store at -20°C long term.

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