Category: Monoclonal Antibodies
Product Name: Mouse Monoclonal Antibody to CHK2

Catalog Number: MAB-606020223

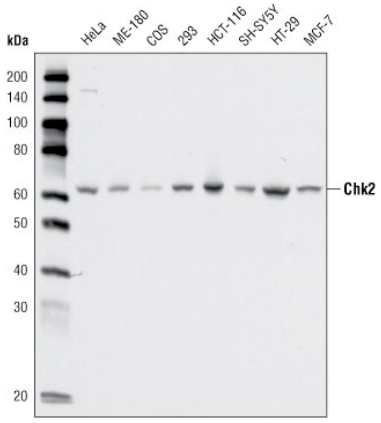

Figure 1: Western blot analysis using CHK2 mouse mAb against cell lysate from various cell types.

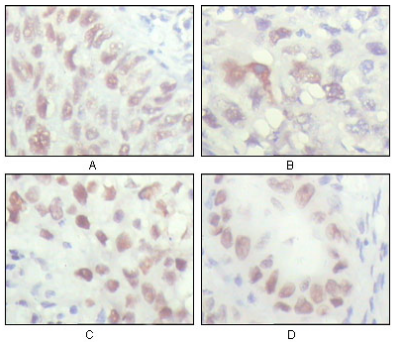

Figure 2: Immunohistochemical analysis of paraffin-embedded human lung carcinoma (A), liver carcinoma (B), breast carcinoma (C) and kiney carcinoma (D), showing nuclear localization with DAB staining using CHK2 mouse mAb.

Lot#:
Clone#: 1C12B8
Host and isotype: Mouse IgG2b
Size: 0.1ml
MW: 61kDa
Aliases: CDS1; LFS2; CHEK2
Entrez Gene: 11200
Species reactivity: Human

Description 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.

Immunogen Purified recombinant fragment of human CHK2 (aa481-531) expressed in E. Coli.

Application Western Bloting: 1/500 - 1/2000.
Immunohistochemistry: 1/200 - 1/1000.
Immunofluorescence: 1/200 - 1/1000.
ELISA: Propose dilution 1/10000.
Not yet tested in other applications.
Determining optimal working dilutions by titration test.

Formulation Ascitic fluid containing 0.03% sodium azide.

Storage Store at 4iæ, for long term storage, store at -20iæ.

Related product

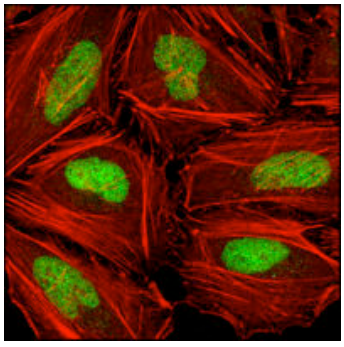

Figure 3: Confocal immunofluorescence analysis of Hela cells using CHK2 mouse mAb (green), showing nuclear localization. Red: Actin filaments have been labeled with DY-554 phalloidin.

References 1. Int J Cancer. 2007 Dec 15;121(12):2661-7.
2. Nat Rev Cancer. 2007 Dec;7(12):925-36.
3. Carcinogenesis. 2008 Apr;29(4):762-5.

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Contact: Antagene, Inc. | Tel: 1 (866) 964-2589 | Fax: 1 (888) 225-1868 | Email: Info@antageneinc.com