

**Product Name: CHK2 Mouse Monoclonal Antibody****Catalog #: AMM80658**

For research use only.

**Summary**

<b>Description</b>	Mouse monoclonal Antibody
<b>Host</b>	Mouse
<b>Application</b>	WB,IHC,ICC,ELISA
<b>Reactivity</b>	Human
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	Mouse IgG2b
<b>Clonality</b>	Monoclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Purified antibody in PBS with 0.05% sodium azide.
<b>Purification</b>	Affinity Purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,IHC 1:200-1:1000,ICC 1:200-1:1000,ELISA 1:5000-1:20000
<b>Molecular Weight</b>	61kDa

**Antigen Information**

<b>Gene Name</b>	CHK2
<b>Alternative Names</b>	CDS1; LFS2; CHEK2
<b>Gene ID</b>	11200.0
<b>SwissProt ID</b>	O96017
<b>Immunogen</b>	Purified recombinant fragment of human CHK2 (aa481-531) expressed in E. Coli.

**Background**

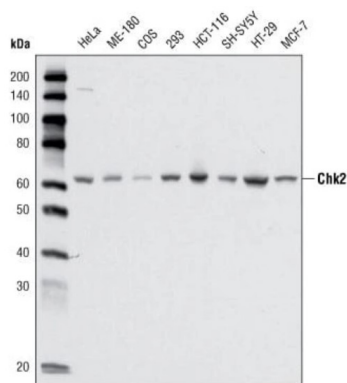
CHK2: CHK2 checkpoint homolog (S. pombe). In response to DNA damage and replication blocks, cell cycle progression is halted through the control of critical cell cycle regulators. The protein encoded by this gene is a cell cycle checkpoint regulator and putative tumor suppressor. It contains a forkhead-associated 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.

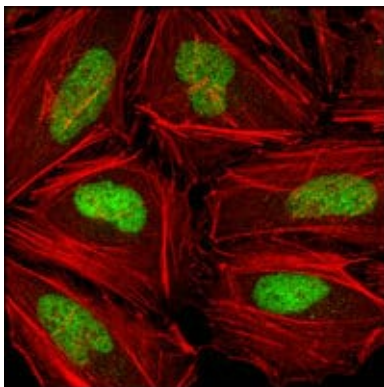
## Research Area

Apoptosis

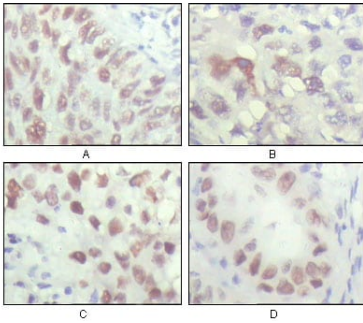
## Image Data



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



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



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