



## Mouse anti Chk2 Monoclonal Antibody

Alternative Name(s): Checkpoint kinase 2

### Order Information

- **Description:** Chk2
- **Catalogue:** 500-4914
- **Lot:** See label
- **Size:** 100ug/200ul
- **Host:** Mouse
- **Clone:** ABM173
- **Application:** IHC(P), WB
- **Reactivity:** Hu

### **ANTIGEN PREPARATION**

Purified recombinant CHK2 protein.

### **BACKGROUND**

Cell cycle events are regulated by the sequential activation and deactivation of cyclin dependent kinases (Cdks) and by proteolysis of cyclins. In response to DNA damage and replication blocks, cell cycle progression is halted through the control of critical cell cycle regulators. Both Chk1 and Chk2 contain 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. Cdc25A, Cdc25B and Cdc25C protein tyrosine phosphatases function as mitotic activators by dephosphorylating Cdc2 p34 on regulatory tyrosine residues. Chk1 can phosphorylate Wee1 in vitro, providing evidence that the hyperphosphorylated form of Wee1, seen in cells delayed by Chk1 overexpression, is due to phosphorylation by Chk1. In addition, CHKs interact with and phosphorylates BRCA1, allowing BRCA1 to restore survival after DNA damage. Mutations in CHK2 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 (a, b, c) encoding different isoforms have been found.

### **PURIFICATION**

The mouse IgG is purified by Protein A-Affinity Chromatography according to Isotyping

### **FORMULATION**

This affinity purified antibody is supplied in sterile Phosphatebuffered saline (pH7.2) containing antibody stabilizer

### **SPECIFICITY**

This antibody recognizes ~70 kDa of human CHK2 protein. The other species are not tested.

### **STORAGE**

The antibodies are stable for 24 months from date of receipt when stored at -20oC to -70oC. The antibodies can be stored at 2oC-8oC for three month without detectable loss of activity. Avoid repeated freezing-thawing cycles.

### **APPLICATIONS/SUGGESTED WORKING DILUTIONS\***

- Western Blot: 0.1-1 µg/ml
- ELISA: 0.01-0.1 µg/ml
- Immunoprecipitation: 2-5 µg/ml
- IHC: 2-10 µg/ml
- Flow cytometry: Not tested
- Molecular Weight: 70.0

### **FOR RESEARCH USE ONLY.**

AbboMax, Inc 2528 Qume Drive, Suite 8, San Jose, California 95131, USA  
1 408-573-1898 (Tel). 1 408-573-1858 (Fax). [www.abbomax.com](http://www.abbomax.com) [info@abbomax.com](mailto:info@abbomax.com)



- Positive Control: Kidney Tissue
- Cellular Location: Cell Membrane

\*Optimal dilutions should be determined by researchers for the specific applications.

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## DATA ATTACHMENTS



Western Blot: The cell lysate derived from HELA was resolved on to 10% SDS-PAGE, transferred to NC membrane and immunoprobed by the Ms anti CHK2 antibody (Cat# 500-4914 ) at 1:500 for 30 min @ RT. An immune-reactive band is observed around 70 kDa.

## REFERENCES

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