

Chk2 (PT0381R) PT® Rabbit mAb

Catalog No: YM8231

Reactivity: Human; Mouse; Rat;

Applications: WB;IHC;IF;IP;ELISA

Target: Chk2

Fields: >>Cell cycle;>>p53 signaling pathway;>>Cellular senescence;>>Human T-cell

leukemia virus 1 infection

Gene Name: CHEK2

Protein Name: Serine/threonine-protein kinase Chk2

O96017

Q9Z265

Human Gene Id: 11200

Human Swiss Prot

No:

Mouse Gene Id: 50883

Mouse Swiss Prot

No:

Specificity: endogenous

Formulation: PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Source : Monoclonal, rabbit, IgG, Kappa

Dilution: IHC 1:200-1:1000,WB 1:1000-1:5000,IF 1:200-1:1000,ELISA

1:5000-1:20000,IP 1:50-1:200,

Purification: Protein A

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight: 61kD

1/3



Observed Band: 61kD

Cell Pathway : Cell_Cycle_G1S;Cell_Cycle_G2M_DNA;p53;

Background: 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 mutati

Function: catalytic activity:ATP + a protein = ADP + a

phosphoprotein.,cofactor:Magnesium.,disease:Defects in CHEK2 are associated

with Li-Fraumeni syndrome 2 (LFS2) [MIM:609265]; a highly penetrant familial

cancer phenotype usually associated with inherited mutations in p53/TP53., disease: Defects in CHEK2 are found in some patients with

osteosarcoma (OSRC) [MIM:259500].,disease:Defects in CHEK2 are found in

some patients with prostate cancer (CaP) [MIM:176807].,enzyme

regulation:Rapidly phosphorylated on Thr-68 by MLTK in response to DNA damage and to replication block. Kinase activity is also up-regulated by

autophosphorylation.,function:Regulates cell cycle checkpoints and apoptosis in response to DNA damage, particularly to DNA double-strand breaks. Inhibits CDC25C phosphatase by phosphorylation on 'Ser-216', preventing the entry into

mitosis. May also play a role in meiosis. Regulates the TP53

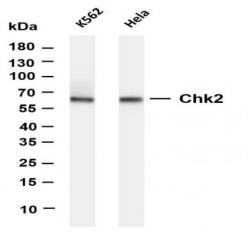
Subcellular Location:

Nucleus

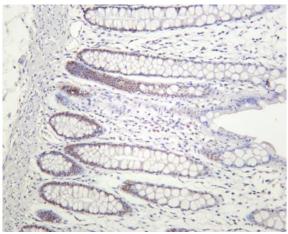
Expression:

High expression is found in testis, spleen, colon and peripheral blood leukocytes. Low expression is found in other tissues.

Products Images



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Chk2 (PT0381R) antibody. The HRP-conjugated Goat anti-Rabbit lgG(H+L) antibody was used to detect the antibody. Lane 1: K562 Lane 2: Hela Predicted band size: 61kDa Observed band size: 61kDa



Human colon was stained with anti-Chk2 (PT0381R) rabbit antibody