



PLK1 Mouse mAb(Mix-mA)

Catalog No	YP-Ab-04826
Isotype	IgG
Reactivity	Human; Mouse;Rat
Applications	IHC;WB
Gene Name	PLK1 PLK
Immunogen	Synthesized peptide derived from human PLK1
Specificity	This antibody detects endogenous levels of PLK1 at Human, Mouse,Rat
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.68% sodium azide.
Source	Monoclonal, Mouse
Purification	The antibody was affinity-purified from mouse ascites by affinity-chromatography using specific immunogen.
Dilution	IHC-p1:50-200 ,WB 1:1000-2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	PLK1;PLK1 PLK;Serine/threonine-protein kinase PLK1 (EC 2.7.11.21) (Polo-like kinase 1) (PLK-1) (Serine/threonine-protein kinase 13) (STPK13)
Observed Band	62kD
Calculated Molecular Weight	62kD
Cell Pathway	Nucleus. Chromosome, centromere, kinetochore. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Cytoplasm, cytoskeleton, spindle . Midbody . localization at the centrosome starts at the G1/S transition (PubMed:24018379). During early stages of mitosis, the phosphorylated form is detected on centrosomes and kinetochores. Localizes to the outer kinetochore. Presence of SGO1 and interaction with the phosphorylated form of BUB1 is required for the kinetochore localization. Localizes onto the central spindle by phosphorylating and docking at midzone proteins KIF20A/MKLP2 and PRC1. Colocalizes with FRY to separating centrosomes and spindle poles from prophase to metaphase in mitosis, but not in other stages of the cell cycle. Localization to the centrosome is required for S ph
Tissue Specificity	Placenta and colon.



Function

catalytic activity: ATP + a protein = ADP + a phosphoprotein., developmental stage: Accumulates to a maximum during the G2 and M phases, declines to a nearly undetectable level following mitosis and throughout G1 phase, and then begins to accumulate again during S phase., enzyme regulation: Activated by serine and threonine phosphorylation., function: Serine/threonine-protein kinase that performs several important functions throughout M phase of the cell cycle, including the regulation of centrosome maturation and spindle assembly, the removal of cohesins from chromosome arms, the inactivation of APC/C inhibitors, and the regulation of mitotic exit and cytokinesis., induction: By growth-stimulating agents., PTM: Autophosphorylation and phosphorylation of Ser-137 are not significant events during activation of PLK1 in M phase., PTM: Catalytic activity is enhanced by phosphorylation of Thr-210 and/or S

Background

The Ser/Thr protein kinase encoded by this gene belongs to the CDC5/Polo subfamily. It is highly expressed during mitosis and elevated levels are found in many different types of cancer. Depletion of this protein in cancer cells dramatically inhibited cell proliferation and induced apoptosis; hence, it is a target for cancer therapy. [provided by RefSeq, Sep 2015],

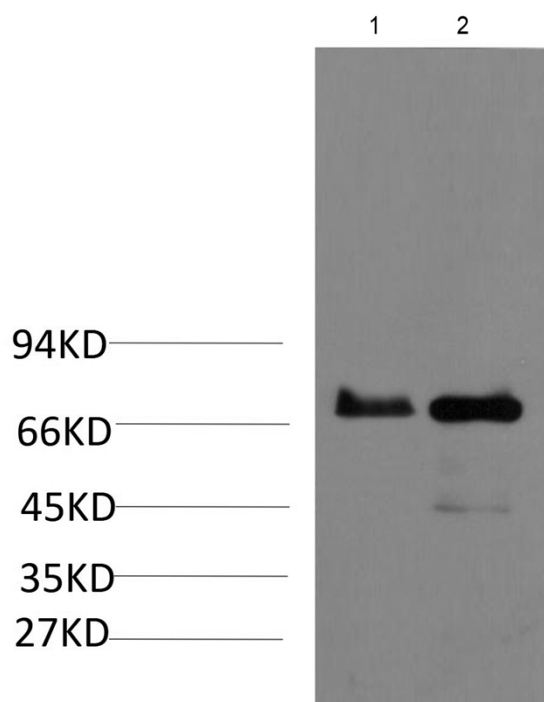
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western blot analysis of 1) PC12 Cell, 2) HepG2 Cell Lysate using PLK1 Mouse mAb diluted at 1:2,000.