

PLK1 (Phospho Ser137) Rabbit pAb

CatalogNo: YP0434

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IF, ELISA, IHC

MW

- 68kD (Observed)

Isotype

- IgG

Recommended Dilution Ratios

WB 1:500-2000

IF/ICC 1:50-200

ELISA 1:2000-20000

IHC 1:50-200

Storage

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

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen The antiserum was produced against synthesized peptide derived from human PLK1 around the phosphorylation site of Ser137. AA range: 103-152

Specificity Phospho-Plk1 (S137) Polyclonal Antibody detects endogenous levels of Plk1 protein only when phosphorylated at S137. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites): RRsLL

| Target Information

Gene name PLK1

Protein Name Serine/threonine-protein kinase PLK1

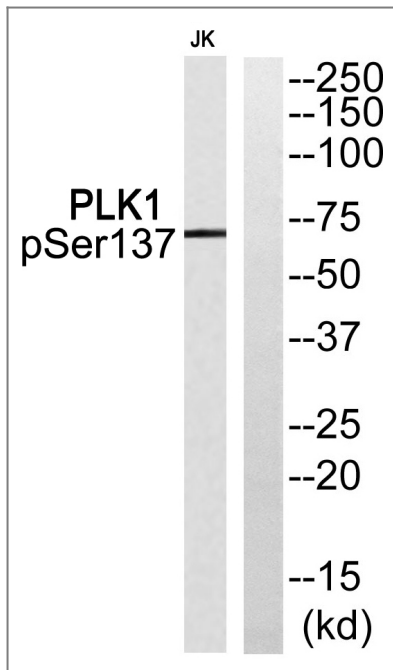
Organism	Gene ID	UniProt ID
Human	5347 ;	P53350 ;
Mouse	18817 ;	Q07832 ;
Rat	25515 ;	Q62673 ;

Cellular Localization 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 phase progression (PubMed:24018379). Colocalizes with HSF1 at the spindle poles during prometaphase (PubMed:18794143). .

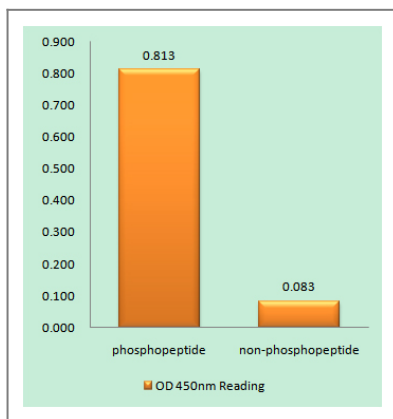
Tissue specificity Placenta and colon.

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 Ser-137.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. CDC5/Polo subfamily.,similarity:Contains 1 protein kinase domain.,similarity:Contains 2 POLO box domains.,subunit:Interacts with CEP170 and EVI5. Interacts and phosphorylates ERCC6L. Interacts with FAM29A.,tissue specificity:Placenta and colon.,

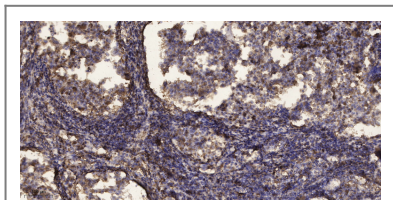
| Validation Data



Western blot analysis of PLK1 (Phospho-Ser137) Antibody. The lane on the right is blocked with the PLK1 (Phospho-Ser137) peptide.



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using PLK1 (Phospho-Ser137) Antibody



Immunohistochemical analysis of paraffin-embedded human Squamous cell carcinoma of lung. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).

Contact information

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