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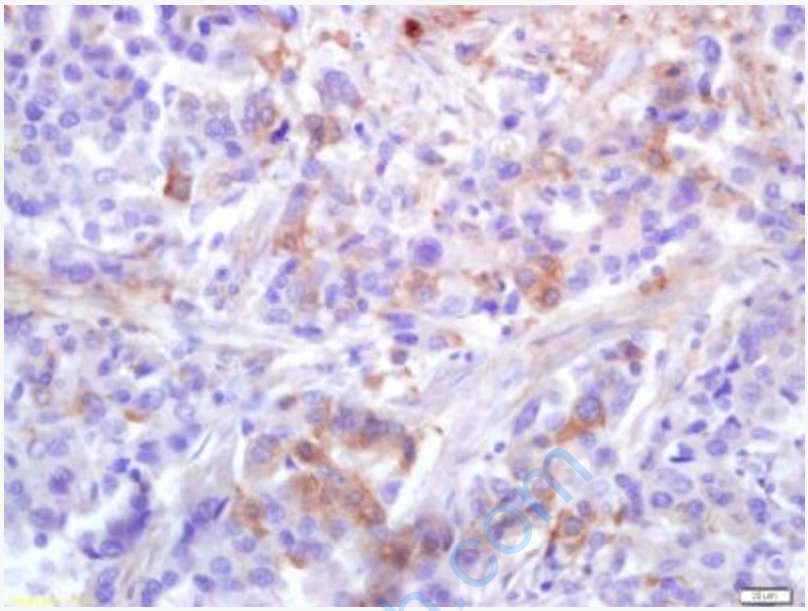
Rabbit Anti-Phospho-PLK1 (Thr210) antibody

SL3344R

Product Name:	Phospho-PLK1 (Thr210)
Chinese Name:	磷酸化丝/苏氨酸蛋白激酶Plk1抗体
Alias:	PLK1 (phospho T210); p-PLK1 (phospho T210); PLK1 (Phospho-Thr210); PLK1 (Phospho Thr210); p-PLK1 (Thr210); p-PLK1 (T210); Polo-Like Kinase(phospho T210); PLK 1; PLK; polio like kinase; Polo like kinase 1; Polo-like kinase 1; Serine/threonine protein kinase 13; Serine/threonine protein kinase PLK1; Serine/threonine-protein kinase; STPK 13; STPK13; Polo like kinase kinase; Cell cycle regulated protein kinase; PLK-1; plk1; PLK1_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	68kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthesised phosphopeptide derived from human PLK1 around the phosphorylation site of Thr210:KK(p-T)L
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed

Product Detail:	PLK1 (polo-like kinase 1) is a member of the serine/threonine protein kinase family, cdc5/polo subfamily. PLK1 contains two polo box domains with a predicted molecular weight of 68 kDa. PLK1 has been shown to regulate cdc2/cyclin B through phosphorylation and activation of cdc25c phosphatase. PLK1 is modified by phosphorylation at Threonine 210. PLK1 may also be required for cell division. Depletion of PLK1 results in apoptosis and deregulation of expression of PKL1 is correlated with development of many malignancies. **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. Required for recovery after DNA damage checkpoint and entry into mitosis. Required for kinetochore localization of BUB1B. Phosphorylates SGOL1. Required for spindle pole localization of isoform 3 of SGOL1 and plays a role in regulating its centriole cohesion function. Phosphorylates BORA, and thereby promotes the degradation of BORA. Contributes to the regulation of AURKA function. Regulates TP53 stability through phosphorylation of TOPORS. Phosphorylates NEDD1. NEDD1 phosphorylation promotes subsequent targeting of the gamma-tubulin ring complex (gTuRC) to the centrosome, an important step for spindle formation. Phosphorylates both ECT2 and RACGAP1, and thereby stimulates their interaction that is essential for the cleavage furrow formation. Promotes the central spindle recruitment of ECT2. **Subunit:** Interacts with CEP170 and EVI5. Interacts and phosphorylates ERCC6L. Interacts with FAM29A. Interacts with SLX4/BTBD12 and TTDN1. Interacts with BUB1B. Interacts (via POLO-box domain) with the phosphorylated form of BUB1, MLF1IP and CDC25C. Interacts with isoform 3 of SGOL1. Interacts with BORA, KIF2A and AURKA. Interacts with TOPORS and CYLD. Interacts with ECT2; the interaction is stimulated upon phosphorylation of ECT2 on 'Thr-444'. Interacts with PRC1. **Subcellular Location:** Nucleus. Chromosome, centromere, kinetochore. Cytoplasm, cytoskeleton, centrosome. Midbody. **Tissue Specificity:** Placenta and colon. **Post-translational modifications:** Catalytic activity is enhanced by phosphorylation of Thr-210. Phosphorylation at Thr-210 is first detected on centrosomes in the G2 phase of the cell cycle, peaks in prometaphase and gradually disappears from centrosomes during anaphase. Autophosphorylation and phosphorylation of Ser-137 may not be significant for the activation of PLK1 during mitosis, but may enhance catalytic activity during recovery after DNA damage checkpoint.

	Ubiquitinated by the anaphase promoting complex/cyclosome (APC/C) in anaphase and following DNA damage, leading to its degradation by the proteasome. Ubiquitination is mediated via its interaction with FZR1/CDH1. Ubiquitination and subsequent degradation prevents entry into mitosis and is essential to maintain an efficient G2 DNA damage checkpoint. **Similarity:** Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. CDC5/Polo subfamily. Contains 2 POLO box domains. Contains 1 protein kinase domain. **SWISS:** P53350 **Gene ID:** 5347 **Database links:** Entrez Gene: 5347 Human Entrez Gene: 18817 Mouse Entrez Gene: 25515 Rat Omim: 602098 Human SwissProt: P53350 Human SwissProt: Q07832 Mouse SwissProt: Q62673 Rat Unigene: 592049 Human Unigene: 16525 Mouse Unigene: 11034 Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:	 Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min; Incubation: Anti-Phospho-PLK1(Thr210) Polyclonal Antibody, Unconjugated(SL3344R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining