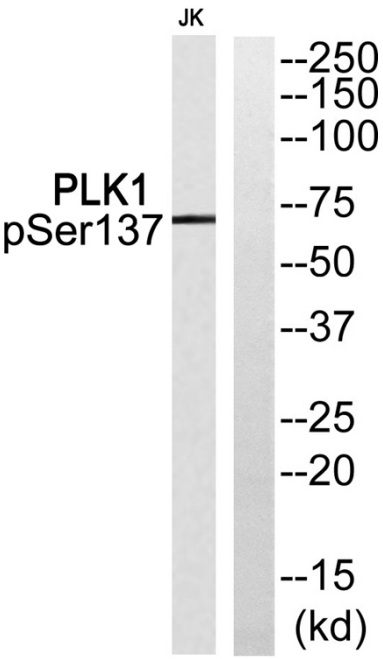
Plk1 (phospho Ser137) Polyclonal Antibody

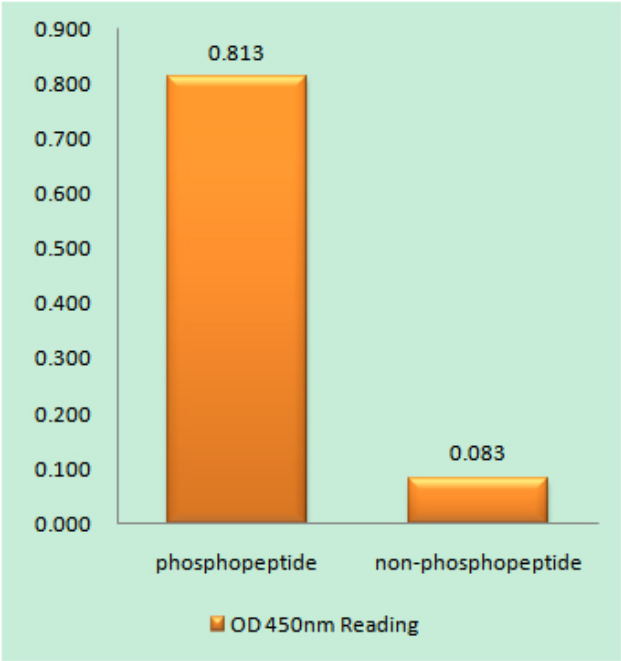
Catalog No	YP-Ab-14401
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IF;ELISA;IHC
Gene Name	PLK1
Protein Name	Serine/threonine-protein kinase PLK1
Immunogen	The antiserum was produced against synthesized peptide derived from human PLK1 around the phosphorylation site of Ser137. AA range:103-152
Specificity	Phospho-Plk1 (S137) Polyclonal Antibody detects endogenous levels of Plk1 protein only when phosphorylated at S137.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000; IF/ICC 1:50-200;ELISA 1:2000-20000;IHC-p 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	PLK1; PLK; Serine/threonine-protein kinase PLK1; Polo-like kinase 1; PLK-1; Serine/threonine-protein kinase 13; STPK13
Observed Band	68kD
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.

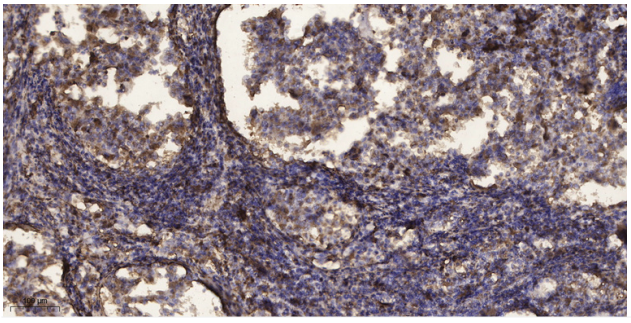
Products Images



Western blot analysis of 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).