

For Research Use Only

PLK1 Polyclonal antibody

Catalog Number: 10305-1-AP

Featured Product

40 Publications



Basic Information

Catalog Number:

10305-1-AP

Size:

150ul, Concentration: 650 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG0284

GenBank Accession Number:

BC002369

GeneID (NCBI):

5347

UNIPROT ID:

P53350

Full Name:

polo-like kinase 1 (Drosophila)

Calculated MW:

68 kDa

Observed MW:

68 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:1000-1:8000

IHC: 1:200-1:800

IF/ICC: 1:50-1:500

FC (Intra): 0.40 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IF/ICC, FC (Intra), ELISA

Cited Applications:

WB, IF, IP, ColP

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat

Positive Controls:

WB: HEK-293 cells, A549 cells, HeLa cells, MDA-MB-453s cells, U2OS cells, Jurkat cells, mouse testis tissue, rat testis tissue

IHC: rat stomach tissue, mouse kidney tissue

IF/ICC: U2OS cells,

FC (Intra): Ramos cells,

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Background Information

PLK1 (Polo-like kinase 1), also named as PLK and STPK13, belongs to the protein kinase superfamily, Ser/Thr protein kinase family and CDC5/Polo subfamily. PLK1 is a 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. The localization of Polo changes during the cell cycle. In interphase, Polo shows a mostly diffuse cytoplasmic localization. Polo becomes concentrated on centrosomes from early prophase and appears on centromeres or kinetochores from late prophase, before nuclear envelope breakdown (NEB). After anaphase onset, Polo relocates to the central spindle and remains enriched at the midbody ring in late stages of cytokinesis (PMID: 29167465).

Notable Publications

Author	Pubmed ID	Journal	Application
Rui Song	30405751	Oncol Lett	WB
Menghao Shi	30498349	Int J Nanomedicine	WB, IF
Bin Wang	36410162	Arch Oral Biol	WB

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

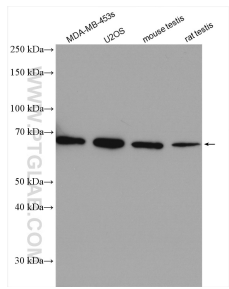
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

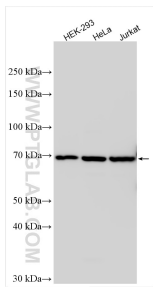
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

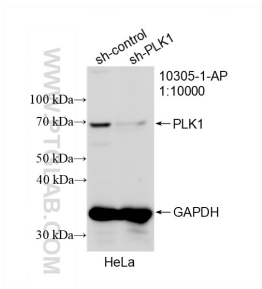
Selected Validation Data



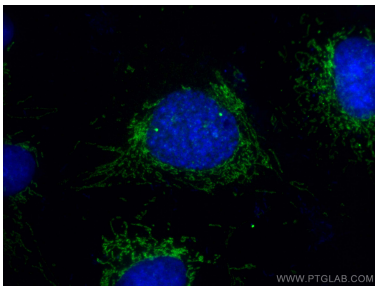
Various lysates were subjected to SDS PAGE followed by western blot with 10305-1-AP (PLK1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



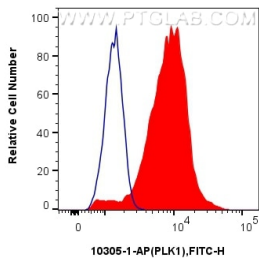
Various lysates were subjected to SDS PAGE followed by western blot with 10305-1-AP (PLK1 antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



WB result of PLK1 antibody (10305-1-AP; 1:10000; incubated at room temperature for 1.5 hours) with sh-Control and sh-PLK1 transfected HeLa cells.



Immunofluorescent analysis of (4% PFA) fixed U2OS cells using PLK1 antibody (10305-1-AP) at dilution of 1:200 and Multi-rAb Coralite® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002).



1X10⁶ Ramos cells were intracellularly stained with 0.4 ug Anti-Human PLK1 (10305-1-AP) and Coralite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Rabbit IgG control Rabbit PolyAb (30000-O-AP, Clone:) (blue). Cells were fixed and permeabilized with True-Nuclear Transcription Factor Buffer Set.



Immunohistochemical analysis of paraffin-embedded rat stomach tissue slide using 10305-1-AP (PLK1 antibody) at dilution of 1:400 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 10305-1-AP (PLK1 antibody) at dilution of 1:400 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).