

For Research Use Only

# PLK1 Polyclonal antibody

Catalog Number: 10305-1-AP

Featured Product

26 Publications



## Basic Information

### Catalog Number:

10305-1-AP

### Size:

150ul, Concentration: 450 µg/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 1:500-1:2000

IHC 1:250-1:1000

## Applications

### Tested Applications:

WB, FC, ELISA

### Cited Applications:

WB, IP, IF

### Species Specificity:

human, mouse, rat

### Cited Species:

human, rat, mouse

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

### Positive Controls:

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

**IHC** : rat stomach tissue, mouse stomach tissue, rat kidney tissue, rat liver tissue

## 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 pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

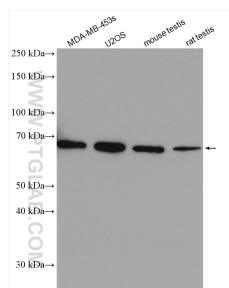
For technical support and original validation data for this product please contact:

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

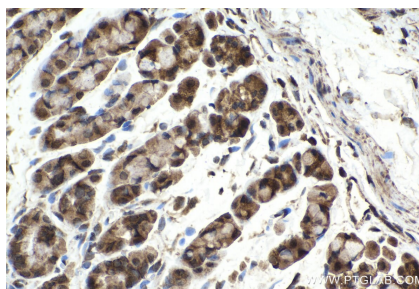
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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

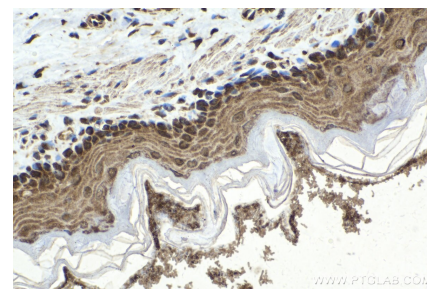
## Selected Validation Data



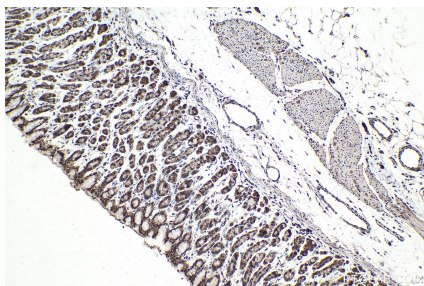
Various lysates were subjected to SDS PAGE followed by western blot with 10305-1-AP (PLK1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



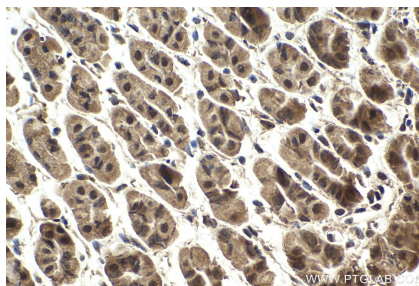
Immunohistochemical analysis of paraffin-embedded rat stomach tissue slide using 10305-1-AP (PLK1 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



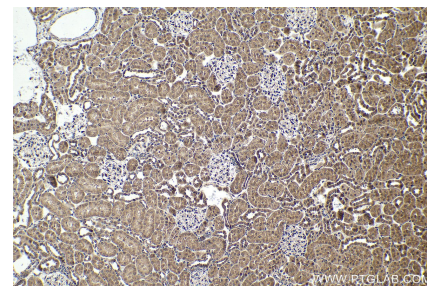
Immunohistochemical analysis of paraffin-embedded rat stomach tissue slide using 10305-1-AP (PLK1 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



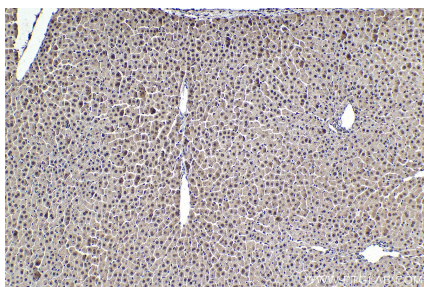
Immunohistochemical analysis of paraffin-embedded rat stomach tissue slide using 10305-1-AP (PLK1 antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



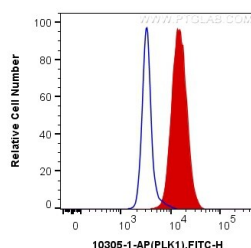
Immunohistochemical analysis of paraffin-embedded mouse stomach tissue slide using 10305-1-AP (PLK1 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



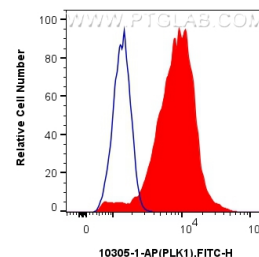
Immunohistochemical analysis of paraffin-embedded rat kidney tissue slide using 10305-1-AP (PLK1 antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded rat liver tissue slide using 10305-1-AP (PLK1 antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1X10<sup>6</sup> HeLa 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 Control Antibody. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).



1X10<sup>6</sup> 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.