

For Research Use Only

PLK1 Polyclonal antibody

Catalog Number: 10305-1-AP

Featured Product

26 Publications



Basic Information

Catalog Number:

10305-1-AP

Size:

450 µg/ml

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:

FC, IHC, WB, ELISA

Cited Applications:

WB, IP, IHC, IF

Species Specificity:

human, mouse, rat

Cited Species:

human, rat, mouse

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

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

PLK1 expression is low or nonexistent in normal tissues, but high in tumor tissues.

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

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

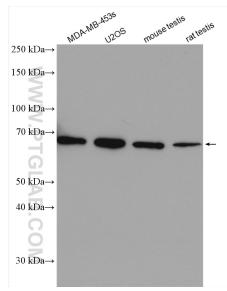
T: 4006900926

E: Proteintech-CN@ptglab.com

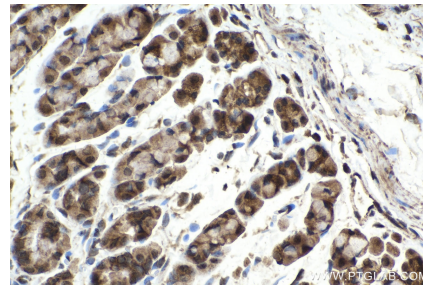
W: ptgcn.com

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

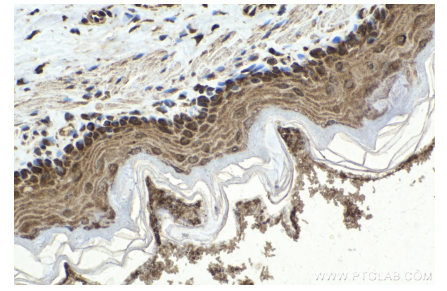
Selected Validation Data



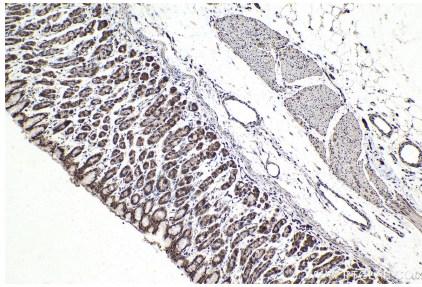
Various lysates were subjected to SDS PAGE followed by western blot with 10305-1-AP (PLK1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



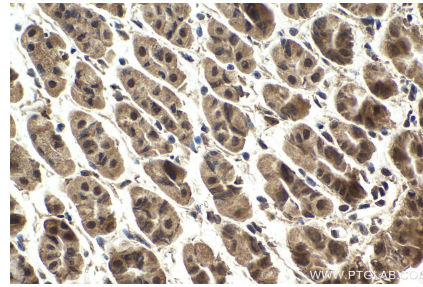
Immunohistochemical analysis of paraffin-embedded rat stomach tissue slide using 10305-1-AP (PLK1 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



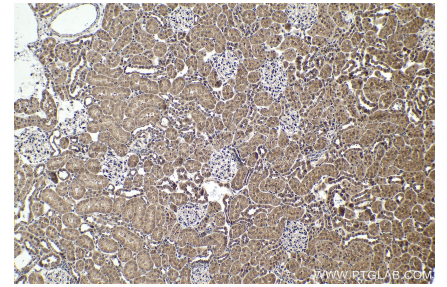
Immunohistochemical analysis of paraffin-embedded rat stomach tissue slide using 10305-1-AP (PLK1 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



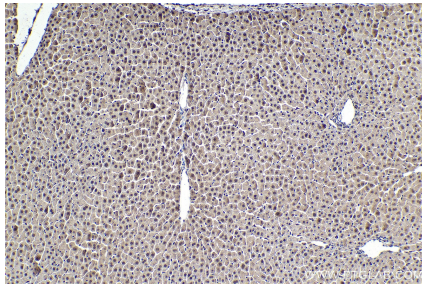
Immunohistochemical analysis of paraffin-embedded rat stomach tissue slide using 10305-1-AP (PLK1 antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



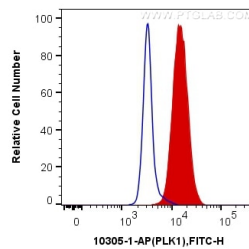
Immunohistochemical analysis of paraffin-embedded mouse stomach tissue slide using 10305-1-AP (PLK1 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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).



1X10⁶ 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).