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# PLK4 Antibody (C-Term)

**Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP21686b**

## Specification

### PLK4 Antibody (C-Term) - Product Information

| | |
|---|---|
| Application | **WB,E** |
| Primary Accession | O00444 |
| Reactivity | **Human** |
| Host | **Rabbit** |
| Clonality | **polyclonal** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **108972** |

### PLK4 Antibody (C-Term) - Additional Information

**Gene ID** 10733

**Other Names**
Serine/threonine-protein kinase PLK4, Polo-like kinase 4, PLK-4, Serine/threonine-protein kinase 18, Serine/threonine-protein kinase Sak, PLK4, SAK, STK18

**Target/Specificity**
This PLK4 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 724-758 amino acids from the region of human PLK4.

**Dilution**
WB~~1:2000

**Format**
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**
PLK4 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

### PLK4 Antibody (C-Term) - Protein Information

**Name** PLK4 (HGNC:11397)

**Synonyms** SAK, STK18

**Function** Serine/threonine-protein kinase that plays a central role in centriole duplication. Able to

trigger procentriole formation on the surface of the parental centriole cylinder, leading to the recruitment of centriole biogenesis proteins such as SASS6, CENPJ/CPAP, CCP110, CEP135 and gamma-tubulin. When overexpressed, it is able to induce centrosome amplification through the simultaneous generation of multiple procentrioles adjoining each parental centriole during S phase. Phosphorylates 'Ser-151' of FBXW5 during the G1/S transition, leading to inhibit FBXW5 ability to ubiquitinate SASS6. Its central role in centriole replication suggests a possible role in tumorigenesis, centrosome aberrations being frequently observed in tumors. Also involved in deuterosome-mediated centriole amplification in multiciliated that can generate more than 100 centrioles. Also involved in trophoblast differentiation by phosphorylating HAND1, leading to disrupt the interaction between HAND1 and MDFIC and activate HAND1. Phosphorylates CDC25C and CHEK2. Required for the recruitment of STIL to the centriole and for STIL-mediated centriole amplification (PubMed:22020124). Phosphorylates CEP131 at 'Ser-78' and PCM1 at 'Ser- 372' which is essential for proper organization and integrity of centriolar satellites (PubMed:30804208).

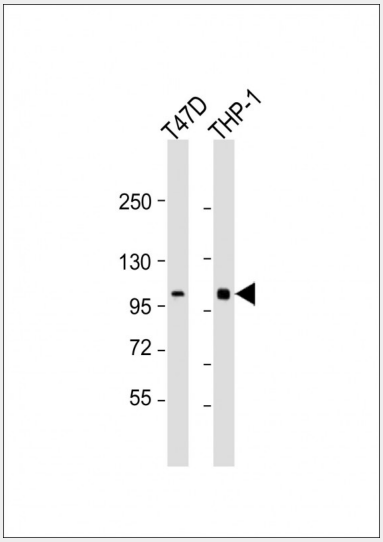
**Cellular Location**
Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole. Nucleus, nucleolus {ECO:0000250|UniProtKB:Q64702}. Cleavage furrow {ECO:0000250|UniProtKB:Q64702}. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Note=Component of the deuterosome, a structure that promotes de novo centriole amplification in multiciliated cells that can generate more than 100 centrioles Associates with centrioles throughout the cell cycle. According to PubMed:16244668, it is not present at cleavage furrows

## PLK4 Antibody (C-Term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## PLK4 Antibody (C-Term) - Images



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All lanes : Anti-PLK4 Antibody (C-Term) at 1:2000 dilution Lane 1: T47D whole cell lysate Lane 2: THP-1 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 109 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

**PLK4 Antibody (C-Term) - Background**

Serine/threonine-protein kinase that plays a central role in centriole duplication. Able to trigger procentriole formation on the surface of the parental centriole cylinder, leading to the recruitment of centriole biogenesis proteins such as SASS6, CENPJ/CPAP, CCP110, CEP135 and gamma-tubulin. When overexpressed, it is able to induce centrosome amplification through the simultaneous generation of multiple procentrioles adjoining each parental centriole during S phase. Phosphorylates 'Ser-151' of FBXW5 during the G1/S transition, leading to inhibit FBXW5 ability to ubiquitinate SASS6. Its central role in centriole replication suggests a possible role in tumorigenesis, centrosome aberrations being frequently observed in tumors. Also involved in deuterosome-mediated centriole amplification in multiciliated that can generate more than 100 centrioles. Also involved in trophoblast differentiation by phosphorylating HAND1, leading to disrupt the interaction between HAND1 and MDFIC and activate HAND1. Phosphorylates CDC25C and CHEK2.

**PLK4 Antibody (C-Term) - References**

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