# abcam

## Product datasheet

## Anti-PLK1 antibody ab109777

1 Rafarancas

面偽粉 /

## 医薬用外劇物

#### 製品の概要

製品名 Anti-PLK1 antibody

製品の詳細 Rabbit polyclonal to PLK1

由来種 Rabbit

アプリケーション 適用あり: WB, IHC-P

種交差性 交差種: Human

交差が予測される動物種: Mouse, Rat, Cow 🕰

免疫原 Recombinant Human PLK1.

ポジティブ・コントロール Raji whole cell lysate; Human Brain (cortex), Human Placenta and Human Skin tissues

特記事項 The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

> Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

### 製品の特性

製品の状態

保存方法 Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

バッファー pH: 7.00

Preservative: 0.01% Thimerosal (merthiolate)

Constituents: 0.184% Tris glycine, 10% Glycerol (glycerin, glycerine)

精製度 Immunogen affinity purified

ポリ/モノ ポリクローナル

アイソタイプ lgG

アプリケーション

#### The Abpromise guarantee

Abpromise保証は、次のテスト済みアプリケーションにおけるab109777の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		1/500 - 1/3000. Predicted molecular weight: 68 kDa.
IHC-P		Use a concentration of 10 µg/ml.

#### ターゲット情報

#### 機能

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. Required for recovery after DNA damage checkpoint and entry into mitosis. Required for kinetochore localization of BUB1B. Phosphorylates SGOL1. Required for spindle pole localization of isoform 3 of SGOL1 and plays a role in regulating its centriole cohesion function. Phosphorylates BORA, and thereby promotes the degradation of BORA. Contributes to the regulation of AURKA function. Regulates TP53 stability through phosphorylation of TOPORS.

#### 組織特異性

Placenta and colon.

#### 配列類似性

Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. CDC5/Polo subfamily.

Contains 2 POLO box domains.
Contains 1 protein kinase domain.

#### 発生段階

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.

#### 翻訳後修飾

Catalytic activity is enhanced by phosphorylation of Thr-210. Phosphorylation at Thr-210 is first detected on centrosomes in the G2 phase of the cell cycle, peaks in prometaphase and gradually

disappears from centrosomes during anaphase.

Autophosphorylation and phosphorylation of Ser-137 may not be significant for the activation of PLK1 during mitosis, but may enhance catalytic activity during recovery after DNA damage checkpoint.

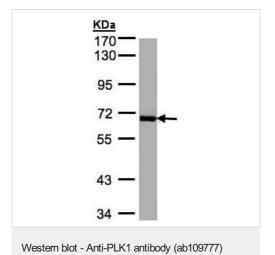
Ubiquitinated by the anaphase promoting complex/cyclosome (APC/C) in anaphase and following DNA damage, leading to its degradation by the proteasome. Ubiquitination is mediated via its interaction with FZR1/CDH1. Ubiquitination and subsequent degradation prevents entry into mitosis and is essential to maintain an efficient G2 DNA damage checkpoint.

#### 細胞内局在

Nucleus. Chromosome > centromere > kinetochore. Cytoplasm > cytoskeleton > centrosome. During early stages of mitosis, the phosphorylated form is detected on centrosomes and kinetochores. Localizes to the outer kinetochore. Presence of SGOL1 and interaction with the

phosphorylated form of BUB1 is required for the kinetochore localization.

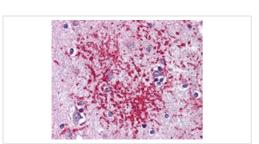
#### 画像



Anti-PLK1 antibody (ab109777) at 1/1000 dilution + Raji whole cell lysate at 30  $\mu g$ 

Predicted band size: 68 kDa

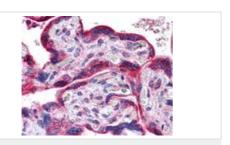
7.5% SDS-PAGE



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-PLK1 antibody

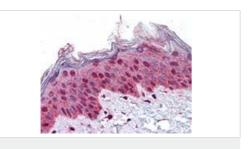
(ab109777)

ab109777, at 10  $\mu$ g/ml, staining PLK1 in formalin-fixed, paraffinembedded Human Brain cortex by Immunohistochemistry.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-PLK1 antibody (ab109777)

ab109777, at 10  $\mu$ g/ml, staining PLK1 in formalin-fixed, paraffinembedded Human Placenta tissue by Immunohistochemistry.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-PLK1 antibody (ab109777)

ab109777, at 10  $\mu$ g/ml, staining PLK1 in formalin-fixed, paraffinembedded Human Skin by Immunohistochemistry.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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