# abcam

## Product datasheet

## Anti-PLK1 antibody [AZ34] ab12211

## 画像数2

#### 製品の概要

製品名 Anti-PLK1 antibody [AZ34]

製品の詳細 Mouse monoclonal [AZ34] to PLK1

由来種 Mouse

特異性 The cross-reactivity of this antibody regards the various isoforms of PLK is not known.

アプリケーション **適用あり**: WB

適用なし: ICC/IF

種交差性 交差種: Human, Xenopus laevis

免疫原 Recombinant full length protein (Xenopus laevis).

ポジティブ・コントロール Hela cells

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 Liquid

保存方法 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

ארע"א Preservative: 0.02% Sodium azide

Constituent: 99.98% PBS

精製度 Protein A purified

**ポリ/モノ** モノクローナル

**クローン名** AZ34

₹**I**□-マ Sp2/0-Ag14

アイソタイプ lgG2a

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab12211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		Use a concentration of 1 µg/ml. Detects a band of approximately 57 kDa (predicted molecular weight: 68 kDa).

追加情報

Is unsuitable for ICC/IF.

#### 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.

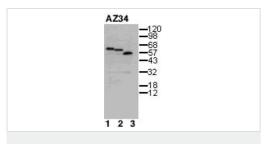
Ubiquitinated by the anaphase promoting complex/cyclosome (APC/C) in anaphase and following DNA damage, leading to its degradation by the proteasome. Ubiquitination is mediated via its interaction with FZR1/CDH1. Ubiquitination and subsequent degradation prevents entry into mitosis and is essential to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



Western blot - Anti-PLK1 antibody [AZ34] (ab12211)

This image is courtesy of Julian Gannon, CRUK

Western blot using ab12211.

Lane 1: Mitotic CSF Xenopus egg extract

Lane 2: Interphase Xenopus egg extract

Lane 3: HeLa cell extract

Note that the phosphorylated form of Plx from the Xenopus mitotic extract migrates slower than the unphosphorylated form present in the interphase extract.

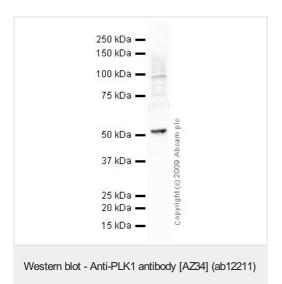
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Lane 1: Mitotic CSF Xenopus egg extract

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Note that the phosphorylated form of Plx from the Xenopus mitotic extract migrates slower than the unphosphorylated form present in the interphase extract.



Anti-PLK1 antibody [AZ34] (ab12211) at 1 μg/ml + HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate at 10 μg

#### Secondary

Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

**Predicted band size:** 68 kDa **Observed band size:** 57 kDa

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