# abcam

## Product datasheet

## Anti-PLK1 (phospho T210) antibody ab12157

★★★★★ 1 Abreviews 5 References 画像数 3

#### 製品の概要

製品名 Anti-PLK1 (phospho T210) antibody

製品の詳細 Rabbit polyclonal to PLK1 (phospho T210)

由来種 Rabbit

特異性 Detects a band at 55kDa in mouse A20 cells that we believe corresponds to Plk1 (predicted

molecular weight 68kDa). Also gives positive staining in immunohistochemistry in human colon

carcinoma as expected. However, we have been unable to conclusively demonstrate the

specificity of the antibody for phospho T210 Plk1.

**アプリケーション 適用あり:** WB, IHC-P

種交差性 交差種: Mouse, Human

交差が予測される動物種: Rat, Xenopus laevis, Drosophila melanogaster, Zebrafish 🔷

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

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.

パッファー Preservative: 0.01% Sodium azide

Constituents: 0.42% Potassium phosphate, 0.87% Sodium chloride

精製度 Immunogen affinity purified

特記事項(精製) Purified by immunoaffinity chromatography using phospho peptide coupled to agarose beads

followed by solid phase adsorption(s) against non-phospho peptide and non-specific peptide to

remove any unwanted reactivities.

**ポリ/モノ** ポリクローナル

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#### アプリケーション

**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ab12157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	<b>★</b> ☆☆☆☆ (1)	1/200 - 1/2000. Predicted molecular weight: 68 kDa.
IHC-P		Use at an assay dependent concentration.

#### ターゲット情報

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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 (phospho T210) antibody (ab12157)

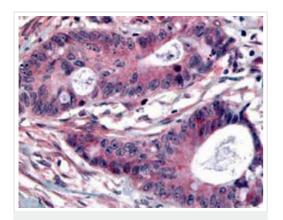
Anti-PLK1 (phospho T210) antibody (ab12157) at 1/500 dilution + Mouse A20 cell lysate

**Predicted band size:** 68 kDa **Observed band size:** 55 kDa

Additional bands at: 23 kDa, 40 kDa, 42 kDa. We are unsure as

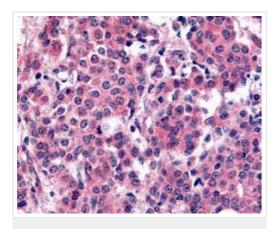
to the identity of these extra bands.

We believe the 55kDa band represents Plk1. However, we cannot be sure that the antibody is detecting phospho T210 Plk1 specifically.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-PLK1 (phospho T210) antibody (ab12157)

ab12157 was used at a 1:200 dilution to detect Plk1 by immunohistochemistry in human colon carcinoma tumor tissue. Tissue was formalin-fixed and paraffin embedded. Detection with AEC (pink), nuclear counterstaining with Haematoxylin (blue).



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-PLK1 (phospho T210) antibody (ab12157)

ab12157 (1/200) detecting Plk1 (phospho T210) in formalin-fixed paraffin embedded human breast carcinoma tissue.

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