abcam

Product datasheet

Anti-PLK1 antibody [AZ44] ab12212

★★★★★ 1 Abreviews 2 References 1 图像

概述

产品名称	Anti-PLK1抗体[AZ44]
描述	**小鼠单克隆抗体**[AZ44] to PLK1
宿主	Mouse
特异性	This is a useful antibody to check that extracts have maintained their CSF status and haven't been activated into interphase.
经测试应用	**适用于:** WB
种属反应性	**与反应:** Human, Xenopus laevis **不与反应:** Mouse
免疫原	Recombinant full length protein (Xenopus laevis).
表位	This antibody is thought to bind to a phosphorylated epitope. However, this has not yet been proved, but it does stain in a mitotic specific manner.
常规说明	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

性能

形式	Liquid
存放说明	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.
存储溶液	Preservative: 0.02% Sodium azide Constituent: 99.98% PBS
纯度	Protein A purified
克隆	单克隆
克隆编号	AZ44
骨髓瘤	Sp2/0-Ag14

同种型	IgG1

应用

The Abpromise guarantee Abpromise™承诺保证使用ab12212于以下的经测试应用

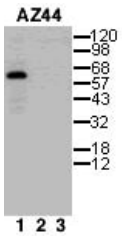
"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB	★★★★★ (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 65 kDa (predicted molecular weight: 68 kDa).

靶标

功能	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.
组织特异性	Placenta and colon.
序列相似性	Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. CDC5/Polo subfamily. Contains 2 POLO box domains. Contains 1 protein kinase domain.
发展阶段	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.
翻译后修饰	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.
细胞定位	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.

图片



Western blot - Anti-PLK1 antibody [AZ44] (ab12212)

This image is courtesy of Julian Gannon, CRUK

Western blot using ab12212.

Lane 1: Mitotic CSF Xenopus egg extract

Lane 2: Interphase Xenopus egg extract

Lane 3: HeLa cell extract

AZ44 only blots the Xenopus mitotic form of Plx which we assume to be due to this antibody recognizing a phosphorylated epitope.

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