

PLK1 overexpression 293T lysate (whole cell) ab94104

[2 Images](#)

Overview

Product name	PLK1 overexpression 293T lysate (whole cell)
General notes	ab94104 is a 293T cell transfected lysate in which Human PLK1 has been transiently over-expressed using a pCMV-PLK1 plasmid. The lysate is provided in 1X Sample Buffer.
Tested applications	Suitable for: WB

Properties

Mycoplasma free	Yes
Form	Liquid
Storage instructions	Shipped on dry ice. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Constituents: 0.01% Bromophenol blue, 2.3% Beta mercaptoethanol, 2% Sodium lauryl sulfate, 0.788% Tris HCl, 10% Glycerol (glycerin, glycerine)
Background	<p>Function: 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. Tissue specificity: Placenta and colon. Similarity: Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. CDC5/Polo subfamily. Contains 2 POLO box domains. Contains 1 protein kinase domain. Developmental stage: 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. PTM: 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</p>

Applications

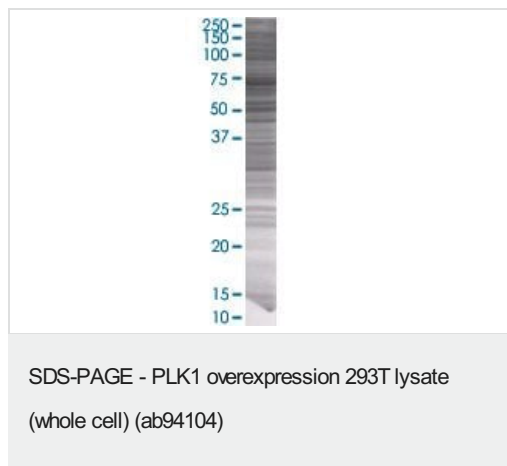
The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab94104 in the following tested applications.

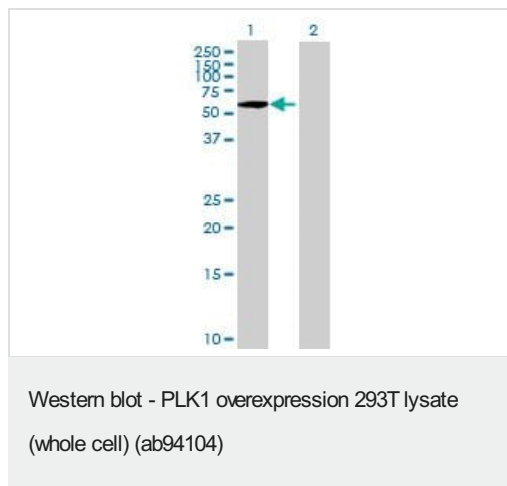
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent dilution.

Images



ab94104 at 15µg/lane on an SDS-PAGE gel.



All lanes : Anti-PLK1 antibody (**ab89600**) at 1/500 dilution

Lane 1 : PLK1 overexpression 293T lysate (whole cell) (ab94104)

Lane 2 : 293T non-transfected lysate

Lysates/proteins at 25 µg per lane.

Secondary

All lanes : Goat Anti-mouse IgG (H and L) HRP conjugated at 1/2500 dilution

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