

Datasheet for ABIN129581  
**anti-PLK1 antibody (pThr210)**

4 Images

1 Publication

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## Overview

Quantity:	100 µg
Target:	PLK1
Binding Specificity:	AA 205-214, pThr210
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PLK1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC)

## Product Details

Immunogen:	Anti-Polo-like Kinase pT210 Antibody was produced by repeated immunizations with a synthetic phospho peptide corresponding to aa 205-214 of Human Polo-like kinase 1 (Plk1) protein.
Isotype:	IgG
Characteristics:	Concentration Definition: by UV absorbance at 280 nm
Purification:	This product is an affinity purified antibody produced 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.

## Target Details

Target:	PLK1
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## Target Details

Alternative Name:	Plk1 ( <a href="#">PLK1 Products</a> )
Background:	<p>Polo-like Kinase pT210 Antibody detects phosphorylated Plk1 protein. Polo-like kinase 1, also known as Plk-1, serine-threonine protein kinase 13 and STPK13, may be required for cell division and have a role during G<sub>1</sub> or S phase and is associated with the phosphorylation of cyclin B<sub>1</sub>. Phosphorylation of Plk-1 on T210 contributes to proper mitotic progression. Plk-1 has a nuclear localization and accumulates to a maximum during the G<sub>2</sub> and M phases, declines to a nearly undetectable level following mitosis and throughout G<sub>1</sub> phase, and then begins to accumulate again during S phase. Plk-1 is a member of the Ser/Thr protein kinase family and the CDC5/Polo subfamily and contains 2 POLO box domains.</p> <p>Synonyms: PLK 1 antibody, PLK antibody, polio like kinase antibody, Polo like kinase 1 antibody, Polo-like kinase 1 antibody, Serine/threonine protein kinase 13 antibody</p>
Gene ID:	5347, 21359873
UniProt:	<a href="#">P53350</a>
Pathways:	<a href="#">Cell Division Cycle, M Phase</a>

## Application Details

Application Notes:	<p>This affinity-purified antibody has been tested for use in ELISA, IHC and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 68 kDa in size corresponding to Plk-1 by western blotting in the appropriate cell lysate or extract. This antibody is positive by IHC on kidney, liver, cancer, thyroid and lymphocyte tissue.</p>
Restrictions:	For Research Use only

## Handling

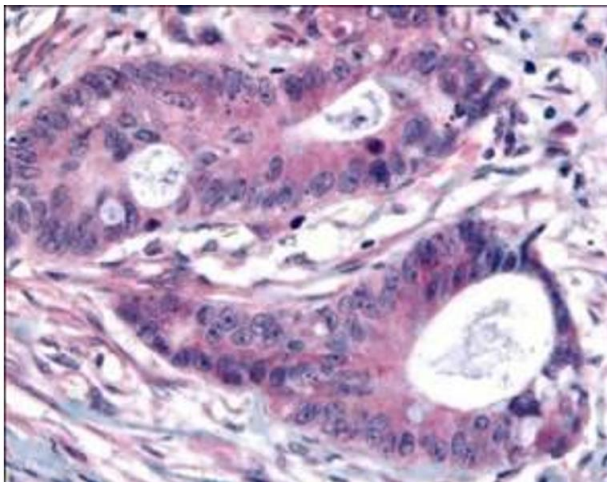
Format:	Liquid
Concentration:	1.0 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C

Product cited in: Maloverjan, Piirsoo, Kasak, Peil, Østerlund, Kogerman: "Dual function of UNC-51-like kinase 3 (Ulk3) in the Sonic hedgehog signaling pathway." in: **The Journal of biological chemistry**, Vol. 285, Issue 39, pp. 30079-90, (2010) ([PubMed](#)).



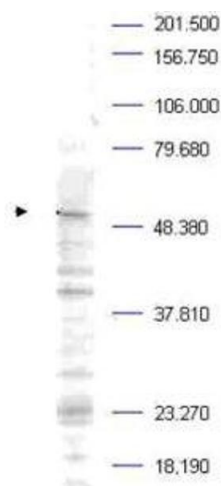
### Western Blotting

**Image 1.** Western blot analysis is shown to detect endogenous and recombinant protein present in HeLa cell lysates transfected with various plk-1 mutation constructs. Blots were reacted with anti-Plk-1 pT210 (panel A) and pan reactive anti-Plk-1 (panel B). Transfected cells were treated with 1 uM nocodazole followed by cell collection, lysate preparation, SDS-PAGE and western blotting. Using a 1:1000 dilution, anti-Plk-1 pT210 detects a single band corresponding to endogenous plk-1, but does not detect recombinant forms of the protein presumably because of a lack of phosphorylation in these mutants. Personal communication Hai Jiang, Northwestern Univ.



### Immunohistochemistry

**Image 2.** Affinity Purified Plk1 pT210 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. Personal Communication, Alan Yen, LifeSpanBiosciences, Seattle, WA.



### Western Blotting

**Image 3.** Western blot analysis is shown using Affinity Purified anti-Plk-1 pT210 antibody to detect endogenous protein present in a Mouse A20 whole cell lysate (arrowhead). Comparison to a molecular weight marker indicates a band of ~68 kDa corresponding to Plk-1 protein. It is suggested to use a nuclear extract from synchronized cells to greatly increase the abundance of this protein in preparations. The blot was incubated with a 1:500 dilution of the antibody at room temperature followed by detection using standard techniques. Personal communication Steven Pelech, Kinexus Inc. Vancouver, BC.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN129581.