

Product datasheet

Recombinant human PLK4 protein ab125558

5 Images

Description

<b>Product name</b>	Recombinant human PLK4 protein
<b>Biological activity</b>	The specific activity of ab125558 is 5.6 nmol/min/mg.
<b>Purity</b>	> 70 % Densitometry. ab125558 is >70% pure.
<b>Expression system</b>	Baculovirus infected Sf9 cells
<b>Accession</b>	<a href="#">O00444</a>
<b>Protein length</b>	Protein fragment
<b>Animal free</b>	No
<b>Nature</b>	Recombinant
<b>Species</b>	Human
<b>Predicted molecular weight</b>	140 kDa including tags
<b>Amino acids</b>	1 to 836

Specifications

Our [Abpromise guarantee](#) covers the use of **ab125558** in the following tested applications.

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

<b>Applications</b>	Western blot Functional Studies SDS-PAGE
<b>Form</b>	Liquid
<b>Additional notes</b>	<a href="#">ab64311</a> (Myelin Basic Protein protein) can be utilized as a substrate for assessing kinase activity

Preparation and Storage

<b>Stability and Storage</b>	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 7.50 Constituents: 25% Glycerol (glycerin, glycerine), 0.003% EDTA, 0.79% Tris HCl, 0.004% DTT, 0.002% PMSF, 0.31% Glutathione, 0.88% Sodium chloride
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This product is an active protein and may elicit a biological response in vivo, handle with caution.

## General Info

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### Function

Serine/threonine-protein kinase that plays a central role in centriole duplication. Able to trigger procentriole formation on the surface of the parental centriole cylinder, leading to the recruitment of centriole biogenesis proteins such as SASS6, CENPJ/CPAP, CP110, CEP135 and gamma-tubulin. When overexpressed, it is able to induce centrosome amplification through the simultaneous generation of multiple procentrioles adjoining each parental centriole during S phase. Its central role in centriole replication suggests a possible role in tumorigenesis, centrosome aberrations being frequently observed in tumors. Also involved in trophoblast differentiation by phosphorylating HAND1, leading to disrupt the interaction between HAND1 and MDFIC and activate HAND1. Phosphorylates CDC25C and CHEK2/CHK2.

### Sequence similarities

Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. CDC5/Polo subfamily. Contains 1 POLO box domain. Contains 1 protein kinase domain.

### Post-translational modifications

Ubiquitinated; leading to its degradation by the proteasome. Tyrosine-phosphorylated by TEC.

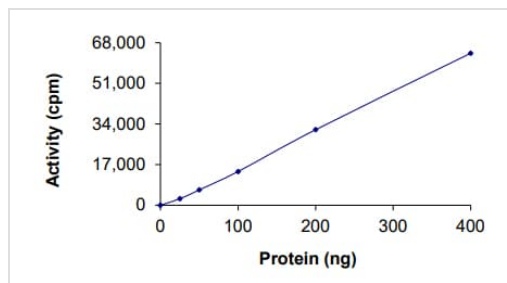
### Cellular localization

Cytoplasm > cytoskeleton > centrosome > centriole. Nucleus > nucleolus. Cleavage furrow. Associates with centrioles throughout the cell cycle. According to PubMed:16244668, it is not present at cleavage furrows.

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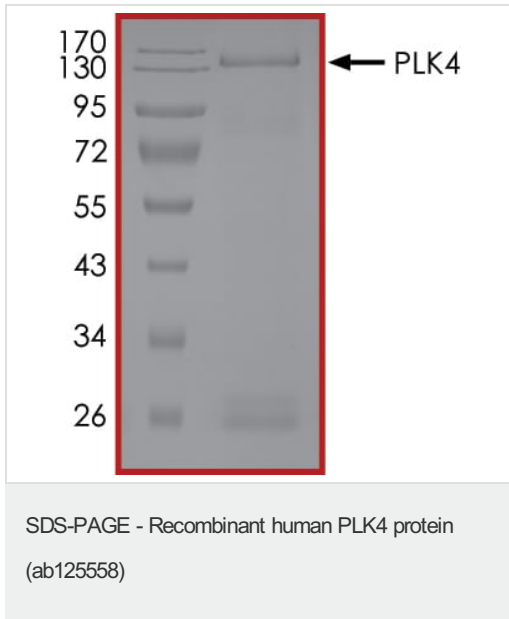
## Images

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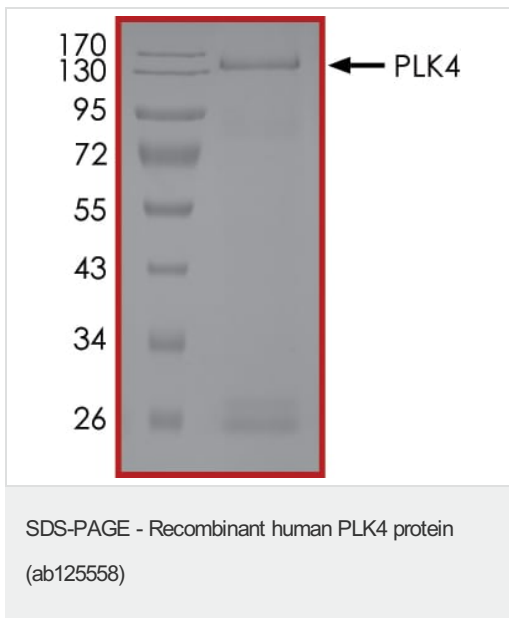


The specific activity of PLK4 (ab125558) was determined to be 6 nmol/min/mg as per activity assay protocol

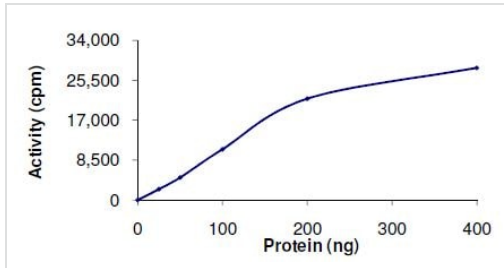
Functional Studies - Recombinant human PLK4 protein (ab125558)



SDS PAGE analysis of ab125558

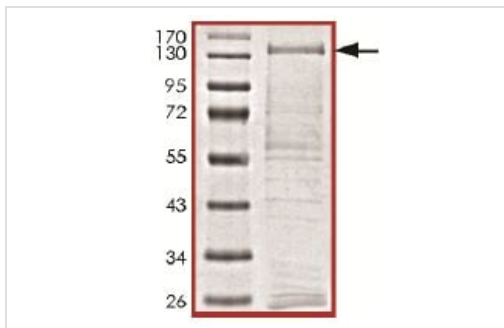


SDS PAGE analysis of ab125558



The specific activity of ab125558 was determined to be 5.6 nmol/min/mg.

Functional Studies - Recombinant human PLK4 protein (ab125558)



SDS PAGE analysis of ab125558 (PLK4 protein).

SDS-PAGE - Recombinant human PLK4 protein (ab125558)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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