


Anti-PLK4 antibody ab137398

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Overview

Product name	Anti-PLK4 antibody
Description	Rabbit polyclonal to PLK4
Host species	Rabbit
Tested applications	Suitable for: ICC/IF Unsuitable for: IHC-P or WB
Species reactivity	Reacts with: Human Predicted to work with: Cow 
Immunogen	Recombinant fragment, corresponding to a region within amino acids 614-871 of Human PLK4 (Uniprot ID O00444).
Positive control	ICC/IF: 293T and HeLa cells.
General notes	<p>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.</p> <p>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</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.00 Preservative: 0.025% Proclin 300 Constituents: 78% PBS, 1% BSA, 20% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab137398 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
ICC/IF		1/100 - 1/1000.

Application notes

Is unsuitable for IHC-P or WB.

Target

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.

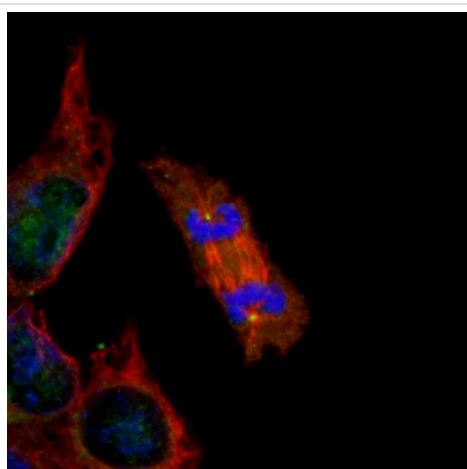
Post-translational modifications

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

Cellular localization

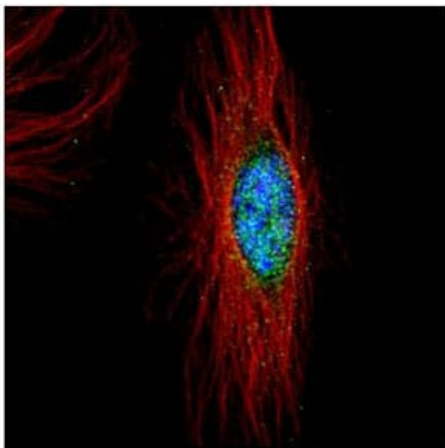
Cytoplasm > cytoskeleton > centrosome > centriole. Nucleus > nucleolus. Cleavage furrow. Associates with centrioles throughout the cell cycle. According to PubMed:16244668, it is not present at cleavage furrows.

Images



Immunocytochemical analysis of methanol-fixed 233T cells labelled with ab137398 at 1/500 dilution (Green). Alpha-tubulin filaments labeled (Red). Fluoroshield with DAPI (Blue).

Immunocytochemistry/ Immunofluorescence - Anti-PLK4 antibody (ab137398)



Immunofluorescence analysis of methanol-fixed HeLa cells labelled with ab137398 at 1/500 dilution (Green). Alpha-tubulin filaments labeled (Red).

Immunocytochemistry/ Immunofluorescence - Anti-PLK4 antibody (ab137398)

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

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