

Rabbit PLK1 Polyclonal Antibody | anti-PLK1 antibody

PLK1 Antibody

CATALOG # AAA168357	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS Immunofluorescence, Immunohistochemistry, Western Blot
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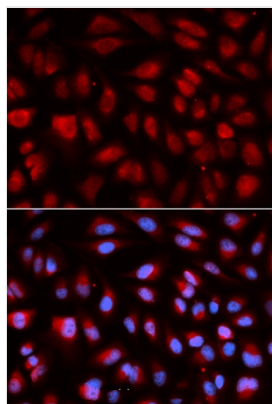
PRODUCT SYNONYMS

PLK1; Polyclonal Antibody; PLK1 Antibody; PLK; STPK13; anti-PLK1 antibody

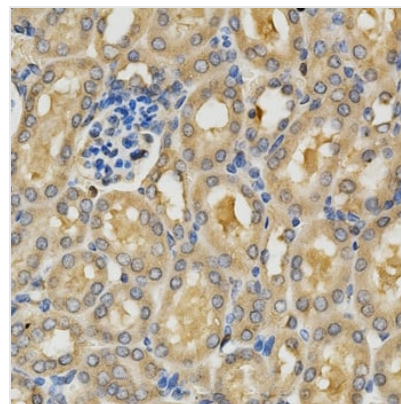
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Purity/Purification	Antigen affinity purification
Concentration	1mg/mL (varies by lot)
Sequence Length	603
Applicable Applications for anti-PLK1 antibody	IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	Recombinant protein of human PLK1
Buffer	PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Santa Cruz Alternative	Potential replacement for Santa Cruz Biotechnology antibody catalog# sc-6355 / sc-5585
Preparation and Storage	Store at -20 degree C (regular) and -80 degree C (long term). Avoid freeze / thaw cycles.

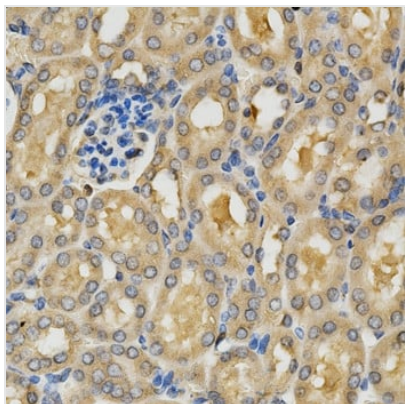
IMAGES


IF (Immunofluorescence)

Immunofluorescence analysis of U2OS cell using PLK1 antibody. Blue: DAPI for nuclear staining.

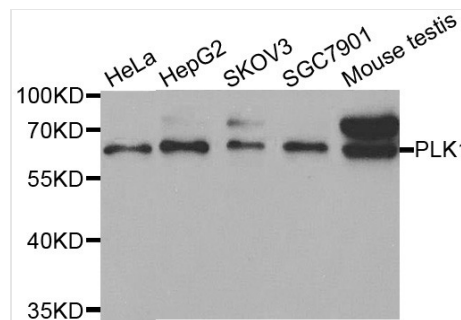

IHC (Immunohistochemistry)

Immunohistochemistry of paraffin-embedded mouse kidney using PLK1 antibody at dilution of 1:200 (x400 lens)



IHC (Immunohistochemistry)

Immunohistochemistry of paraffin-embedded human esophageal cancer using PLK1 antibody at dilution of 1:200 (x400 lens)



WB (Western Blot)

Western blot analysis of extracts of various cell lines, using PLK1 antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-PLK1 antibody

At least four distinct polo-like kinases exist in mammalian cells: PLK1, PLK2, PLK3, and PLK4/SAK (1). PLK1 apparently plays many roles during mitosis, particularly in regulating mitotic entry and exit. The mitosis promoting factor (MPF), cdc2/cyclin B1, is activated by dephosphorylation of cdc2 (Thr14/Tyr15) by cdc25C. PLK1 phosphorylates cdc25C at Ser198 and cyclin B1 at Ser133 causing translocation of these proteins from the cytoplasm to the nucleus (2-5). PLK1 phosphorylation of Myt1 at Ser426 and Thr495 has been proposed to inactivate Myt1, one of the kinases known to phosphorylate cdc2 at Thr14/Tyr15 (6). Polo-like kinases also phosphorylate the cohesin subunit SCC1, causing cohesin displacement from chromosome arms that allow for proper cohesin localization to centromeres (7). Mitotic exit requires activation of the anaphase promoting complex (APC) (8), a ubiquitin ligase responsible for removal of cohesin at centromeres, and degradation of securin, cyclin A, cyclin B1, Aurora A, and cdc20 (9). PLK1 phosphorylation of the APC subunits Apc1, cdc16, and cdc27 has been demonstrated in vitro and has been proposed as a mechanism by which mitotic exit is regulated (10, 11). Substitution of Thr210 with Asp has been reported to elevate PLK1 kinase activity and delay/arrest cells in mitosis, while a Ser137Asp substitution leads to S-phase arrest (12). In addition, while DNA damage has been found to inhibit PLK1 kinase activity, the Thr210Asp mutant is resistant to this inhibition (13). PLK1 has been reported to be phosphorylated in vivo at Ser137 and Thr210 in mitosis; DNA damage prevents phosphorylation at these sites (14).

NCBI AND UNIPROT INFORMATION

NCBI GI #	649151110
NCBI Official Full Name	PLK1, partial

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/plk1-antibody-immunofluorescence-immunohistochemistry-western-blot-elisa/168357>