

# PLK1 Antibody Cocktail

## Product Details

Size	100 µg
Species Reactivity	Human, Mouse, Non-human primate, Rat, Xenopus
Published Species	Rat, Human, Mouse
Host/Isotype	Mouse / IgG1, kappa/IgG2b, kappa
Class	Cocktail
Type	Antibody
Clone	PL6/PL2
Conjugate	Unconjugated
Immunogen	A His-tagged Plk fusion protein (C-term Plk1) containing amino acids 402-603 of the human Plk1 protein(
Form	Liquid
Concentration	0.5 mg/mL
Purification	Protein A
Storage buffer	PBS, pH 7.4
Contains	0.1% sodium azide
Storage conditions	-20°C
RRID	AB_2533104

Applications	Tested Dilution	Publications
Western Blot (WB)	1-2 µg/mL	35 Publications
Immunohistochemistry (IHC)	-	1 Publication
Immunohistochemistry (Paraffin) (IHC (P))	1:10-1:100	-
Immunocytochemistry (ICC/IF)	1-5 µg/mL	6 Publications
ELISA (ELISA)	0.1-1.0 µg/mL	-
Immunoprecipitation (IP)	5 µg	5 Publications
Miscellaneous PubMed (Misc)	-	3 Publications

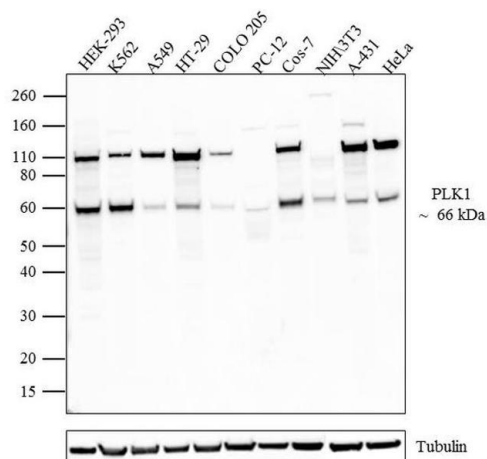
## Product Specific Information

33-1700 contains a cocktail of monoclonal mouse PLK1 containing clone PL6, isotype IgG1, kappa and clone PY20, isotype IgG2b, kappa.

## Product Images For PLK1 Antibody Cocktail

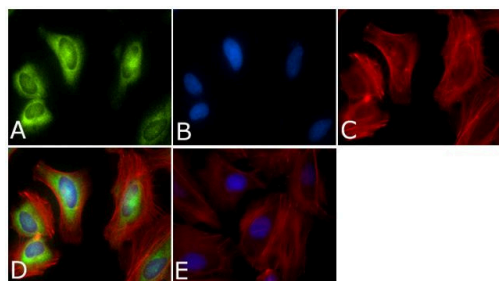
### PLK1 Antibody (33-1700) in WB

Western blot analysis of PLK1 was performed by loading 20 µg of HEK-293 (lane1), K562 (lane2), A549 (lane3), HT-29 (lane4), COLO 205 (lane5), PC-12 (lane6), Cos-7 (lane7), NIH\0003T3 (lane8), A-431 (lane9) and HeLa (lane10) cell lysate using Novex® NuPAGE® 4-12 % Bis-Tris gel (Product # NP0322BOX), XCell SureLock™ Electrophoresis System (Product # EI0002), Novex® Sharp Pre-Stained Protein Standard (LC5800), and iBlot® 2 Dry Blotting System (IB21001). Proteins were transferred to a nitrocellulose membrane and blocked with 5 % skim milk for 1 hour at room temperature. PLK1 was detected at ~66 kDa along with an unknown protein band at ~110 kDa using PLK1 Mouse Monoclonal Antibody (Product # 33-1700), it also reacts with Monkey, Mouse and Rat PLK1 at 1-2 µg/mL in 5 % skim milk at 4°C overnight on a rocking platform. Goat Anti-Mouse - HRP Secondary Antibody (Product # 62-6520) at 1:4000 dilution was used and chemiluminescent detection was performed using Pierce™ ECL Western Blotting Substrate (Product # 32106).



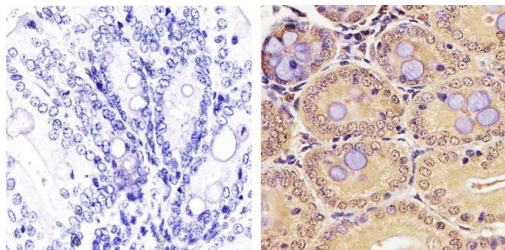
### PLK1 Antibody (33-1700) in ICC/IF

Immunofluorescent analysis of PLK1 Antibody (PL6/PL2) was done on 70% confluent log phase HeLa cells. The cells were fixed with 4% paraformaldehyde for 15 minutes, permeabilized with 0.25% Triton™ X-100 for 10 minutes, and blocked with 5% BSA for 1 hour at room temperature. The cells were labeled with PLK1 Antibody (PL6/PL2) (Product # 33-1700) at 1µg/mL in 1% BSA and incubated for 3 hours at room temperature and then labeled with Alexa Fluor 488 Rabbit Anti-Mouse IgG Secondary Antibody (Product # A-11059) at a dilution of 1: 400 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Alexa Fluor 594 Phalloidin (Product # A12381). Panel d is a merged image showing cytoplasmic and Nuclear localization. Panel e is a no primary antibody control. The images were captured at 40X magnification.



### PLK1 Antibody (33-1700) in IHC (P)

Immunohistochemistry analysis of PLK1 showing staining in the nucleus and cytoplasm of paraffin-embedded mouse colon tissue (right) compared to a negative control without primary antibody (left). To expose target proteins, antigen retrieval was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H2O2-methanol for 15 min at room temperature, washed with ddH2O and PBS, and then probed with a PLK1 monoclonal antibody (Product # 33-1700) diluted in 3% BSA-PBS at a dilution of 1:50 overnight at 4°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



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## Western Blot (35)

<p><b>Nature communications</b></p> <p><b>Linking post-translational modifications and protein turnover by site-resolved protein turnover profiling.</b></p> <p>"33-1700 was used in Western Blot to measure the turnover of &gt;120,000 peptidoforms including &gt;33,000 phosphorylated, acetylated, and ubiquitinated peptides for &gt;9,000 native proteins."</p> <p>Authors: Zecha J,Gabriel W,Spallek R,Chang YC,Mergner J,Wilhelm M,Bassermann F,Kuster B</p>	<p><b>Year</b> 2022</p> <p><b>Species</b> Human</p> <p><b>Dilution</b> 1:500</p>
<p><b>Nucleic acids research</b></p> <p><b>A kinase-independent function for AURORA-A in replisome assembly during DNA replication initiation.</b></p> <p>"33-1700 was used in Western Blotting to report a kinase-independent function for AURORA-A kinase(AURKA) in DNA replication initiation whose inhibition through a class of allosteric inhibitors opens avenues for cancer therapy."</p> <p>Authors: Guarino Almeida E,Renaudin X,Venkitaraman AR</p>	<p><b>Year</b> 2020</p> <p><b>Species</b> Human</p>

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## Immunohistochemistry (1)

<p><b>Nature communications</b></p> <p><b>CDC20B is required for deuterosome-mediated centriole production in multiciliated cells.</b></p> <p>"33-1700 was used in Immunohistochemistry-immunofluorescence to investigate the cell division cycle 20B gene in multiciliated cells."</p> <p>Authors: Revinski DR,Zaragosi LE,Boutin C,Ruiz-Garcia S,Deprez M,Thomé V,Rosnet O,Gay AS,Mercey O,Paquet A,Pons N,Ponzio G,Marcet B,Kodjabachian L,Barbry P</p>	<p><b>Year</b> 2018</p> <p><b>Species</b> Mouse</p> <p><b>Dilution</b> 1:500</p>
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## Immunocytochemistry (6)

<p><b>Cell division</b></p> <p><b>HSP70 is required for the proper assembly of pericentriolar material and function of mitotic centrosomes.</b></p> <p>"33-1700 was used in Immunocytochemistry-immunofluorescence to study the mechanisms that regulate centrosome expansion and maturation."</p> <p>Authors: Fang CT,Kuo HH,Hsu SC,Yih LH</p>	<p><b>Year</b> 2022</p> <p><b>Species</b> Human</p>
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IP (5)   Misc (3)

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