

Mouse Plk3 Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14695a

Specification

Mouse Plk3 Antibody (N-term) - Product Information

Application	WB, FC,E
Primary Accession	Q60806
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	70012
Antigen Region	33-61

Mouse Plk3 Antibody (N-term) - Additional Information

Other Names

Serine/threonine-protein kinase PLK3, Cytokine-inducible serine/threonine-protein kinase, FGF-inducible kinase, Polo-like kinase 3, PLK-3, Plk3, Cnk, Fnk

Target/Specificity

This Mouse Plk3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 33-61 amino acids from the N-terminal region of mouse Plk3.

Dilution

WB~~1:1000
FC~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Mouse Plk3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Plk3 Antibody (N-term) - Protein Information

Name Plk3

Synonyms Cnk, Fnk

Function Serine/threonine-protein kinase involved in cell cycle regulation, response to stress and

Golgi disassembly. Polo-like kinases act by binding and phosphorylating proteins that are already phosphorylated on a specific motif recognized by the POLO box domains. Phosphorylates ATF2, BCL2L1, CDC25A, CDC25C, CHEK2, HIF1A, JUN, p53/TP53, p73/TP73, PTEN, TOP2A and VRK1. Involved in cell cycle regulation: required for entry into S phase and cytokinesis. Phosphorylates BCL2L1, leading to regulate the G2 checkpoint and progression to cytokinesis during mitosis. Plays a key role in response to stress: rapidly activated upon stress stimulation, such as ionizing radiation, reactive oxygen species (ROS), hyperosmotic stress, UV irradiation and hypoxia. Involved in DNA damage response and G1/S transition checkpoint by phosphorylating CDC25A, p53/TP53 and p73/TP73. Phosphorylates p53/TP53 in response to reactive oxygen species (ROS), thereby promoting p53/TP53-mediated apoptosis. Phosphorylates CHEK2 in response to DNA damage, promoting the G2/M transition checkpoint. Phosphorylates the transcription factor p73/TP73 in response to DNA damage, leading to inhibit p73/TP73-mediated transcriptional activation and pro-apoptotic functions. Phosphorylates HIF1A and JUN in response to hypoxia. Phosphorylates ATF2 following hyperosmotic stress in corneal epithelium. Also involved in Golgi disassembly during the cell cycle: part of a MEK1/MAP2K1-dependent pathway that induces Golgi fragmentation during mitosis by mediating phosphorylation of VRK1. May participate in endomitotic cell cycle, a form of mitosis in which both karyokinesis and cytokinesis are interrupted and is a hallmark of megakaryocyte differentiation, via its interaction with CIB1.

Cellular Location

Cytoplasm. Nucleus. Nucleus, nucleolus. Golgi apparatus Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Note=Translocates to the nucleus upon cisplatin treatment. Localizes to the Golgi apparatus during interphase (By similarity).

Tissue Location

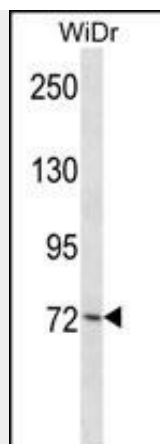
Expressed in skin.

Mouse Plk3 Antibody (N-term) - Protocols

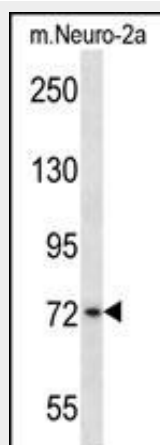
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

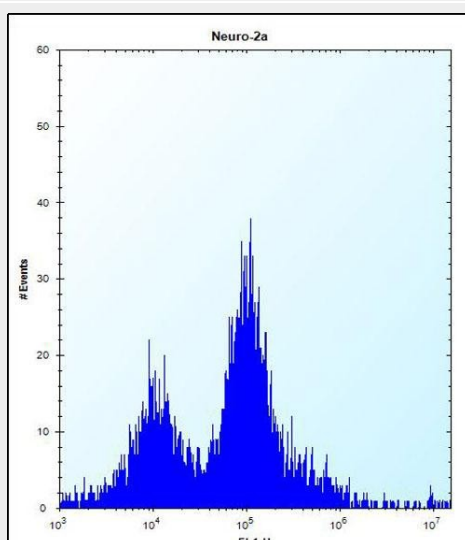
Mouse Plk3 Antibody (N-term) - Images



Mouse Plk3 Antibody (N-term) (Cat. #AP14695a) western blot analysis in WiDr cell line lysates (35ug/lane). This demonstrates the Plk3 antibody detected the Plk3 protein (arrow).



Mouse Plk3 Antibody (N-term) (Cat. #AP14695a) western blot analysis in mouse Neuro-2a cell line lysates (35ug/lane). This demonstrates the Plk3 antibody detected the Plk3 protein (arrow).



Mouse Plk3 Antibody (N-term) (Cat. #AP14695a) flow cytometric analysis of Neuro-2a cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated donkey-anti-rabbit secondary antibodies were used for the analysis.

Mouse Plk3 Antibody (N-term) - Background

Serine/threonine protein kinase involved in regulating M phase functions during the cell cycle. May also be part of the signaling network controlling cellular adhesion. In vitro, is able to phosphorylate CDC25C and casein (By similarity).