

Mouse Plk3 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP14695a**Specification**

Mouse Plk3 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q60806](#)**Mouse Plk3 Antibody (N-term) Blocking Peptide - 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

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Mouse Plk3 Antibody (N-term) Blocking Peptide - 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) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

Mouse Plk3 Antibody (N-term) Blocking Peptide - Images**Mouse Plk3 Antibody (N-term) Blocking Peptide - 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).