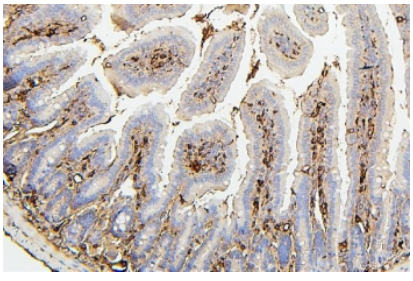
PLK1 Antibody 6D11 / Serine/Threonine-Protein Kinase 13 Antibody [clone 6D11] (RQ5512)

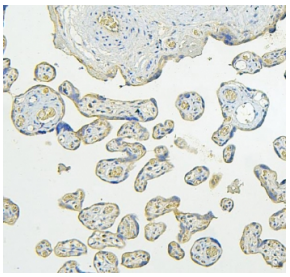
Catalog No.	Formulation	Size
RQ5512	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

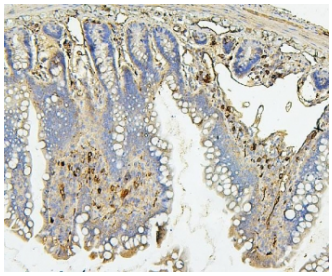
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat, Monkey
Format	Antigen affinity purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b
Clone Name	6D11
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P53350
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This PLK1 Antibody 6D11 / Serine/Threonine-Protein Kinase 13 Antibody is available for research use only.



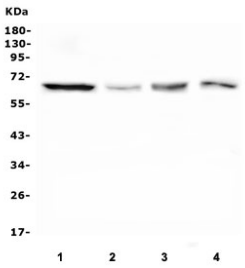
PLK1 Antibody 6D11 in Mouse Intestine IHC. Immunohistochemistry staining of FFPE mouse intestine tissue with PLK1 Antibody clone 6D11. HIER was performed by boiling tissue sections in pH 6, 10 mM citrate buffer for 20 min followed by cooling before testing. Specific brown immunoreactivity is observed within the intestinal epithelium, with stronger staining in subsets of cells consistent with the cell-cycle-regulated expression of PLK1. This staining supports tissue detection using the Serine/Threonine-Protein Kinase 13 Antibody.



PLK1 Antibody 6D11 in Human Placenta IHC. Immunohistochemistry staining of FFPE human placenta tissue with PLK1 Antibody clone 6D11. HIER was performed by boiling tissue sections in pH 6, 10 mM citrate buffer for 20 min followed by cooling before testing. Brown immunoreactivity is visible in placental cells, with staining distinguishable from the blue hematoxylin-counterstained nuclei. The observed staining demonstrates detection of endogenous PLK1 in human tissue using the Serine/Threonine-Protein Kinase 13 Antibody.



PLK1 Antibody 6D11 in Rat Intestine IHC. Immunohistochemistry staining of FFPE rat intestine tissue with PLK1 Antibody clone 6D11. HIER was performed by boiling tissue sections in pH 6, 10 mM citrate buffer for 20 min followed by cooling before testing. Distinct brown immunoreactivity is present within the intestinal mucosa, including epithelial regions of the crypts and villi. This staining provides cross-species tissue validation for the Serine/Threonine-Protein Kinase 13 Antibody.



PLK1 Antibody 6D11 in Human and Monkey Cells WB. Western blot testing of cell lysates with PLK1 Antibody clone 6D11. Lane 1: human HeLa; lane 2: monkey COS-7; lane 3: human Raji; lane 4: human U-2 OS. A discrete band is detected at approximately 68 kDa in all four lysates, consistent with the predicted molecular weight of PLK1. Signal intensity varies among the samples, while little additional reactivity is visible. The clean target-sized bands demonstrate recognition of endogenous PLK1 in human and monkey cells and strong western blot performance of the Serine/Threonine-Protein Kinase 13 Antibody.

Description

PLK1 Antibody 6D11 / Serine/Threonine-Protein Kinase 13 Antibody recognizes polo-like kinase 1, a highly conserved serine/threonine protein kinase with central roles in cell-cycle progression and mitosis. PLK1 belongs to the polo-like kinase family and contains an N-terminal catalytic kinase domain and a C-terminal polo-box domain that contributes to substrate recognition and intracellular localization. PLK1 activity and abundance are tightly regulated as cells progress through the cell cycle.

PLK1 participates in several major events required for successful cell division. Its activity increases as cells approach mitosis and contributes to centrosome maturation, mitotic entry, bipolar spindle formation, chromosome segregation and cytokinesis. The polo-box domain helps direct PLK1 to specific cellular structures and phosphorylated binding partners, allowing kinase activity to be coordinated spatially and temporally during mitosis.

Serine/Threonine-Protein Kinase 13 is a historical name for PLK1 and is also associated with the abbreviation STPK13. PLK1 interacts functionally with multiple regulators of mitotic progression, including proteins involved in cyclin-dependent kinase activation, spindle checkpoint control and anaphase progression. Precise regulation of PLK1 is important because either insufficient or excessive kinase activity can disrupt chromosome segregation and normal cell division.

PLK1 expression is frequently elevated in proliferating cells and has been extensively investigated in cancer biology. Increased expression has been reported in numerous tumor types, while inhibition or depletion of PLK1 can interfere with mitotic progression. These properties have made PLK1 an important research target for studying cell proliferation, mitotic regulation, genomic stability and mechanisms of antimitotic therapies.

NSJ Bioreagents offers PLK1 Antibody clone 6D11 for research into polo-like kinase signaling and cell-cycle regulation. The established 6D11 clone provides a monoclonal reagent for examining PLK1 protein, while the Serine/Threonine-Protein Kinase 13 Antibody terminology captures an established historical designation for the same kinase.

A PLK1 Antibody provides a reagent for investigating polo-like kinase 1 expression and mitotic regulation, including its roles in centrosome function, spindle formation, chromosome segregation and cell division.

This PLK1 Antibody is part of our Signal Transduction Antibodies collection.

Application Notes

Optimal dilution of the PLK1 Antibody 6D11 / Serine/Threonine-Protein Kinase 13 Antibody should be determined by the researcher.

Immunogen

A human recombinant protein (amino acids K86-N430) was used as the immunogen for the PLK1 Antibody 6D11.

Storage

After reconstitution, the PLK1 Antibody 6D11 can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Polo-Like Kinase 1 antibody, Serine/Threonine-Protein Kinase 13 antibody, STPK13 antibody, PLK-1 antibody

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