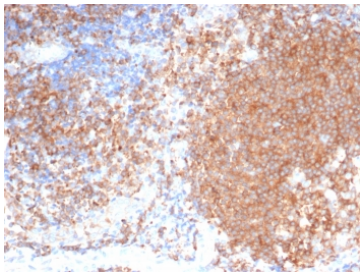
Polo-Like Kinase 1 Antibody PLK1/7122 / STPK13 Antibody [clone PLK1/7122] (V4413)

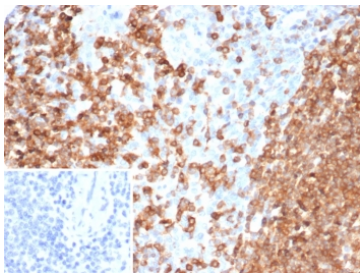
Catalog No.	Formulation	Size
V4413-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4413-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4413SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

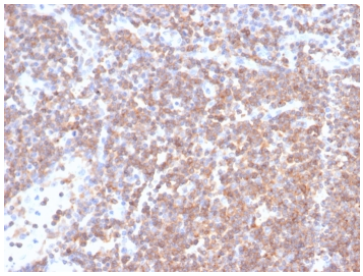
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	PLK1/7122
Purity	Protein A/G affinity
UniProt	P53350
Localization	Nucleus, Cytoplasm
Applications	ELISA (Order BSA-free format for coating) Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT
Limitations	This Polo-Like Kinase 1 Antibody PLK1/7122 / STPK13 Antibody is available for research use only.



Polo-Like Kinase 1 Antibody PLK1/7122 in Human Tonsil IHC. Immunohistochemistry staining of FFPE human tonsil tissue with Polo-Like Kinase 1 Antibody clone PLK1/7122. HIER was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min followed by cooling before testing. Brown immunoreactivity is prominent in densely cellular lymphoid regions, with heterogeneous staining across the tissue. The observed pattern demonstrates detection of PLK1 in human tonsil and supports tissue-based use of the STPK13 Antibody.



Polo-Like Kinase 1 Antibody PLK1/7122 in Human Spleen IHC. Immunohistochemistry staining of FFPE human spleen tissue with Polo-Like Kinase 1 Antibody clone PLK1/7122. HIER was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min followed by cooling before testing. Brown immunoreactivity is visible throughout portions of the splenic tissue, while the inset PBS/secondary-only control shows minimal staining. The contrast with the negative control supports specific tissue staining by the STPK13 Antibody.



Polo-Like Kinase 1 Antibody PLK1/7122 in Human Lymph Node IHC. Immunohistochemistry staining of FFPE human lymph node tissue with Polo-Like Kinase 1 Antibody clone PLK1/7122. HIER was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min followed by cooling before testing. Widespread brown immunoreactivity is observed among lymphoid cells, with variation in staining intensity across the field. This staining demonstrates detection of endogenous PLK1 in human lymph node and reinforces the tissue performance of the STPK13 Antibody.

Description

Polo-Like Kinase 1 Antibody PLK1/7122 / STPK13 Antibody recognizes polo-like kinase 1, a serine/threonine protein kinase that plays a central role in cell-cycle progression and mitosis. PLK1 contains an N-terminal catalytic kinase domain and a C-terminal polo-box domain involved in substrate recognition and intracellular localization. Its expression and kinase activity are tightly regulated throughout the cell cycle, with activity increasing as cells approach mitosis.

PLK1 coordinates several events required for successful cell division. It contributes to centrosome maturation, mitotic entry, bipolar spindle formation, chromosome segregation and cytokinesis. Localization of PLK1 to centrosomes, kinetochores and the spindle apparatus allows its kinase activity to be directed toward substrates at specific stages of mitosis. These functions make PLK1 an important regulator of both the timing and physical organization of cell division.

STPK13 is an established historical designation for PLK1 and reflects its classification as a serine/threonine protein kinase. PLK1 participates in regulatory networks involving cyclin-dependent kinases, phosphatases and spindle checkpoint proteins. Appropriate control of these interactions is necessary for accurate chromosome segregation and maintenance of genomic stability.

PLK1 is closely associated with cellular proliferation and is frequently elevated in actively dividing cells. Increased PLK1 expression has also been reported in numerous cancers, making the kinase an extensively studied target in cancer biology. Experimental inhibition or depletion of PLK1 can disrupt mitotic progression, providing a basis for research into its roles in tumor-cell proliferation and responses to antimitotic strategies.

NSJ Bioreagents offers Polo-Like Kinase 1 Antibody clone PLK1/7122 for research into PLK1 expression and mitotic regulation. The STPK13 Antibody terminology provides an additional established name for researchers investigating this cell-cycle kinase.

A Polo-Like Kinase 1 Antibody provides a reagent for studying PLK1 expression, mitotic progression, chromosome segregation and other processes associated with regulated cell division.

For a PLK1 antibody with broader species reactivity and western blot validation, see our PLK1 Antibody 6D11 / Serine/Threonine-Protein Kinase 13 Antibody.

Application Notes

Optimal dilution of the Polo-Like Kinase 1 Antibody PLK1/7122 / STPK13 Antibody should be determined by the researcher.

Immunogen

A recombinant fragment of human protein (within amino acids 1-200) was used as the immunogen for the Polo-Like Kinase 1 Antibody PLK1/7122.

Storage

Aliquot the Polo-Like Kinase 1 Antibody PLK1/7122 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

PLK1 antibody, STPK13 antibody, Serine/Threonine-Protein Kinase 13 antibody, PLK-1 antibody

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