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Phospho-Thr210 Polo-like Kinase 1 Antibody

Affinity purified rabbit polyclonal antibody
Catalog # AN1120

Specification

Phospho-Thr210 Polo-like Kinase 1 Antibody - Product Information

Application	**WB**
Primary Accession	P53350
Reactivity	**Human, Rat**
Predicted	**Bovine, Mouse, Monkey, Xenopus, Zebrafish**
Host	**Rabbit**
Clonality	**polyclonal**
Calculated MW	**66 KDa**

Phospho-Thr210 Polo-like Kinase 1 Antibody - Additional Information

Gene ID	**5347**
Gene Name	**PLK1**

Other Names
Serine/threonine-protein kinase PLK1, Polo-like kinase 1, PLK-1, Serine/threonine-protein kinase 13, STPK13, PLK1, PLK

Target/Specificity
Synthetic phospho-peptide corresponding to amino acid residues surrounding Thr210 conjugated to KLH.

Dilution
WB~~ 1:1000

Format
Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephospho-peptide affinity columns.

Antibody Specificity
Specific for ~66k PLK phosphorylated at Thr210. Immunolabeling of the PLK band is completely blocked by λ-phosphatase treatment.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Phospho-Thr210 Polo-like Kinase 1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

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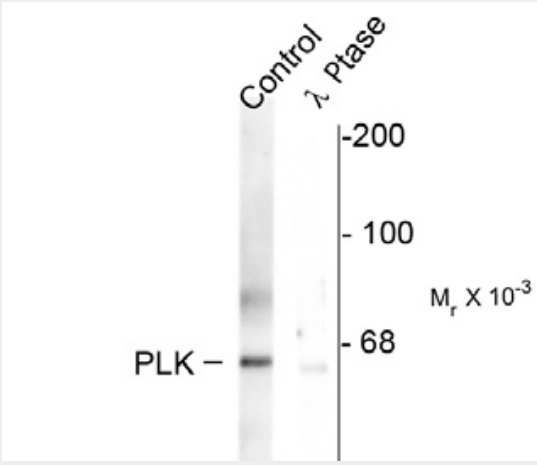
Phospho-Thr210 Polo-like Kinase 1 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-Thr210 Polo-like Kinase 1 Antibody - Images



Western blot of rat synaptic membrane showing specific immunolabeling of the~66 k PLK protein phosphorylated at Thr210 (control). The phosphospecificity of this labeling is shown in the second lane (lambda-phosphatase: λ-Ptase). Theblot is identical to the control except that it was incubated in λ-Ptase (1200 unitsfor 30 min) before being exposed to the phospho-Thr210 PLK antibody. The immunolabeling is completely eliminated by treatment with λ-Ptase.

Phospho-Thr210 Polo-like Kinase 1 Antibody - Background

Polo-like kinases are important regulators of cell cycle progression. PLK1 is a highly conserved Ser/Thr kinase that has essential roles in the formation of mitotic bipolar spindles (van Vugt et al., 2004). Deregulated expression of PLK's is detected in many types of cancer and associated with oncogenesis (Takei et al., 2005). It has been proposed that PLK1 function is altered at different stages of mitosis through consecutive phosphorylation events at Ser137 and Thr210 (van de Weerdt et al., 2005).

Phospho-Thr210 Polo-like Kinase 1 Antibody - References

van Vugt MA, van de Weerdt BC, Vader G, Janssen H, Calafat J, Klompmaker R, Wolthuis RM, Medema RH (2004) Polo-like kinase 1 is required for bipolar spindle formation but is dispesible for anaphase promoting complex cdc20 activation and initiation of cytokinesis. J. Biol. Chem. Aug 27;279(35):36841-54.
Takai N, Hamanaka R, Yoshimatsu J, Miyakawa I (2005) Polo-like kinases and cancer. Oncogene Jan 10; 24(2): 287-91.
van de Weerdt BC, van Vugt MA, Lindon C, Kauw JJ, Rozendaal MJ, Klompmaker R, Wolthuis RM, Medema RH (2005) Uncoupling anaphase-promoting complex/cyclosome activity from spindle assembly checkpoint control by deregulating polo-like kinase 1. Mol. Cell Biol. Mar; 25(5):2031-44.