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Product Data Sheet

Purified anti-PLK-1 Phosphorylated (Thr210)

Catalog # / Size: 618601 / 50 µl (5 Western blots)
618602 / 200 µl (20 Western blots)

Clone: Poly6186

Isotype: Rabbit IgG

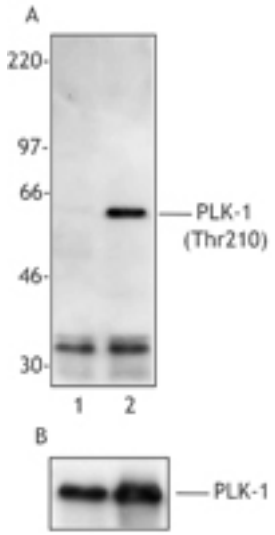
Immunogen: Modified peptide

Reactivity: Human

Preparation: The antibody was purified by antigen-affinity chromatography.

Formulation: This antibody is provided in phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 50% glycerol.

Storage: Upon receipt, store frozen at -20° C.



Panel A. Extracts from untreated Hela cells (Lane 1) or overnight nocodazole-treated Hela cells (Lane 2) were immunoprecipitated with the pan-PLK monoclonal antibody (clone 3F8), and then western blotted with Poly6186 against phosphorylated PLK-1 (Thr210). Proteins were visualized using a donkey anti-rabbit secondary conjugated to HRP and a chemiluminescence detection system. Panel B. Extracts from untreated Hela cells (Lane 1) or overnight nocodazole-treated Hela cells (Lane 2) in Panel A were stripped and re-probed with a polyclonal antibody against pan-PLK-1 (Poly6185) to document equivalent loading of the PLK-1 protein.

Applications:

Applications: WB, IF

Recommended Usage: Each lot of this antibody is quality control tested by Western blotting. Western blotting, suggested working dilution(s): Use 10 µl per 5 ml antibody dilution buffer for each mini-gel. It is recommended that the reagent be titrated for optimal performance for each application.

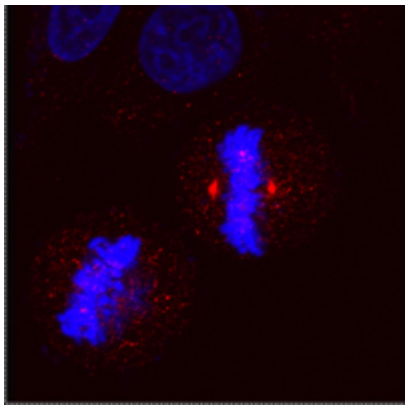
Application Notes: This antibody reacts against Thr210-phosphorylated PLK-1 (Cross-reacts with unknown phosphorylated kinase in non-mitotic and mitotic cells. To increase specificity, immunoprecipitate with anti-PLK-1 antibody prior to blotting with phospho-specific PLK-1.)

Description: PLK-1 (polo-like kinase 1) is a member of te serine/threonine protein kinase family, cdc5/polo subfamily. Highly homologous to polo-like kinase (Drosophila), PLK-1 contains two polo box domains with a predicted molecular weight of 68 kD. This nuclear protein is highly expressed in placenta and colon and has been shown to regulate cdc2/cyclin B through phosphorylation and activation of cdc25c phosphatase. PLK-1 may also be required for cell division; depletion of PLK-1 results in apoptosis. PLK-1 is upregulated by growth stimulating agents and is regulated by cell cycle position (highest in G2/M phase, declining to nearly undetectable levels after mitosis and throughout G1). PLK-1 is modified by phosphorylation (Thr210 is the major phosphorylation site in activated PLK-1 from mitotic cells) and has been shown to interact with nuclear distribution gene C. The Poly6186 antibody recognizes human phosphorylated PLK-1 (Thr210) and has been shown to be useful for Western blotting. The Poly6186 antibody cross-reacts with an unknown kinase in non-mitotic cells. To increase specificity, it is recommended that the Poly6186 antibody be used for Western blotting after immunoprecipitation with a pan-specific PLK-1 antibody (clone 3F8).

Antigen References:
1. Hamanaka R, *et al.* 1994. *Cell Growth Differ.* 5:249.
2. Lake RJ, *et al.* 1993. *Mol. Cell. Biol.* 13:7793.
3. Holtrich U, *et al.* 1994. *P. Natl. Acad. Sci. USA* 91:1736.

Related Products:

Product	Clone	Application
Purified anti-PLK-1	Poly6185	WB, IP
HRP Donkey anti-rabbit IgG (minimal x-reactivity)	Poly4064	ELISA, IHC, WB



Immunofluorescent microscope analysis of nocodazole treated Hela cells (10Ï¼M for overnight), using PLK-1 Phosphorylated (Thr210) polyclonal antibody (red). Nuclei were stain with DAPI (blue).

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