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Product Data Sheet

Purified anti-PLK-1 Phosphorylated (Thr210)

Catalog # / Size: 628901 / 25 µg
628902 / 100 µg

Clone: 2A3

Isotype: Mouse IgG1, κ

Immunogen: Modified peptide

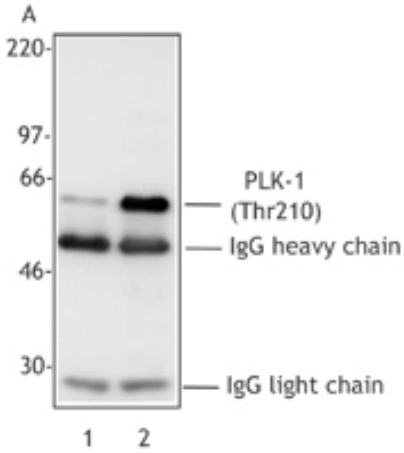
Reactivity: Human

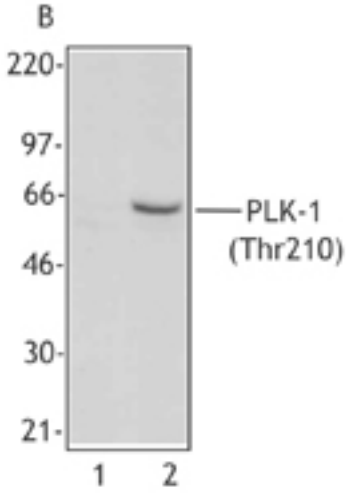
Preparation: The antibody was purified by affinity chromatography.

Formulation: This antibody is provided in phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide at 0.5 mg/ml.

Concentration: 0.5 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C.





Panel A. Extracts from untreated Hela cells (Lane 1) or overnight nocodazole-treated Hela cells (Lane 2) were immunoprecipitated with the pan-PLK mAb (clone 3F8), resolved by electrophoresis, transferred to nitrocellulose and probed with mAb 2A3 reactive against Thr210-phosphorylated PLK-1. Proteins were visualized using an HRP goat anti-mouse secondary Ab and a chemiluminescence detection system. Panel B. Extracts from untreated Hela cells (Lane 1) or overnight nocodazole-treated Hela cells (Lane 2) were resolved by electrophoresis, transferred to nitrocellulose and probed with mAb 2A3 reactive against Thr210-phosphorylated PLK-1. Proteins were visualized using an HRP goat anti-mouse secondary and a chemiluminescence detection system.

Applications:

Applications: WB - *Quality tested*

Recommended Usage: Each lot of this antibody is quality control tested by Western blotting. Western blotting, suggested working dilution(s): Use 5 µg antibody 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 References: 1. Molli PR, *et al.* 2010. *J Cell Biol.* 190:101. PubMed

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 2A3 antibody recognizes human phosphorylated PLK-1 (Thr210) and has been shown to be useful for Western blotting. To increase specificity, it is recommended that the 2A3 antibody be used for Western blotting after immunoprecipitation with the pan-specific PLK-1 3F8 antibody.

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 Mouse IgG1, κ Isotype Ctrl	MOPC-21	FC, ICFC, ICC, IF, IHC, IP, WB
HRP Goat anti-mouse IgG (minimal x-reactivity)	Poly4053	ELISA, IHC, WB
Fixation Buffer		ICC, ICFC
Permeabilization Wash Buffer (10X)		ICC, ICFC, IHC
Purified anti-PLK-1	Poly6185	WB, IP
Purified anti-PLK-1	3F8	IF, IP, WB

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