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Product Data Sheet

Alexa Fluor® 488 anti-PLK-1 Phosphorylated (Thr210)

Catalog # / Size: 628906 / 100 tests

Clone: 2A3

Isotype: Mouse IgG1, κ

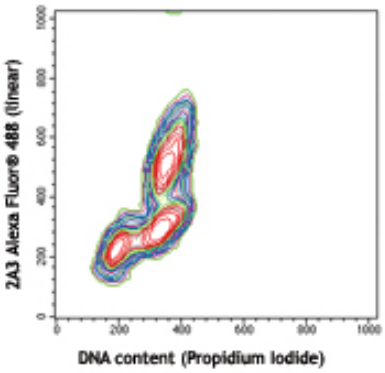
Immunogen: Modified peptide

Reactivity: Human

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 488 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 488.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



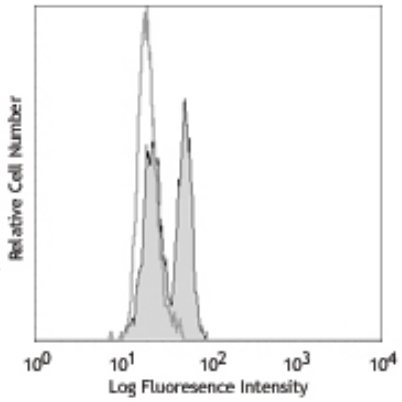
Nocodazole-treated (37°C, overnight) Hela cells were fixed and permeabilized with 70% cold ethanol, then stained with 2A3 Alexa Fluor® 488 vs. Propidium Iodide (DNA content analysis)

Applications:

Applications: ICFC - *Quality tested*

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent intracellular staining with flow cytometric analysis. Please follow the Cell Fixation and Permeabilization Protocol Using 70% Ethanol. For immunofluorescent staining, the suggested use of this reagent is 5 µl per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.
** Alexa Fluor® is a registered trademark of Molecular Probes, Inc. Alexa Fluor® dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.



Nocodazole-treated (37°C, overnight) (shaded histogram) or non-treated (open histogram) Hela cells were fixed and permeabilized with 70% cold ethanol and then stained with 2A3 Alexa Fluor® 488

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
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
Alexa Fluor® 488 Mouse IgG1, κ Isotype Ctrl (ICFC)	MOPC-21	ICFC, IF

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