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Product datasheet for TA328020

PLK1 Mouse Monoclonal Antibody [Clone ID: 2A3]

Product data:

Product Type:	Primary Antibodies
Clone Name:	2A3
Applications:	WB
Recommended Dilution:	WB
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1, kappa
Clonality:	Monoclonal
Immunogen:	Modified peptide
Formulation:	This antibody is provided in phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide at 0.5 mg/ml.
Concentration:	lot specific
Purification:	The antibody was purified by affinity chromatography.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	68 kD
Gene Name:	polo like kinase 1
Database Link:	NP_005021 Entrez Gene 5347 Human P53350

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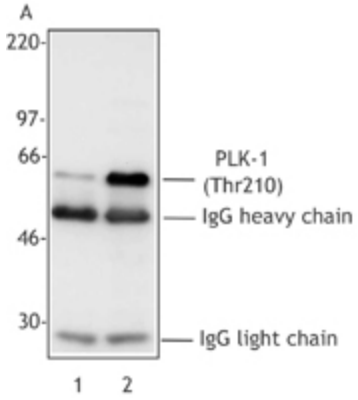
Background: PLK-1 (polo-like kinase 1) is a member of te serine/threonine protein kinase family, cdc5/polo subfamily. Highly homologous to polo-like kinase (Drosophila), PLK-1 contains two polo box domains with a predicted molecular weight of 68 kD. This nuclear protein is highly expressed in placenta 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.

Synonyms: PLK; STPK13

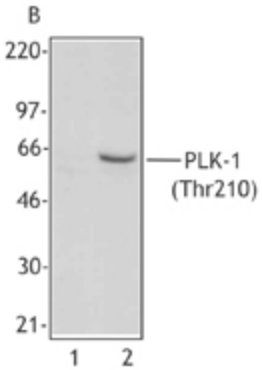
Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: Cell cycle, Oocyte meiosis, Progesterone-mediated oocyte maturation

Product images:



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.