## Phospho-PLK1 (Thr210) (C2) rabbit mAb

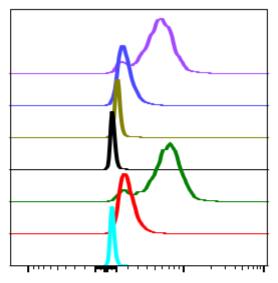
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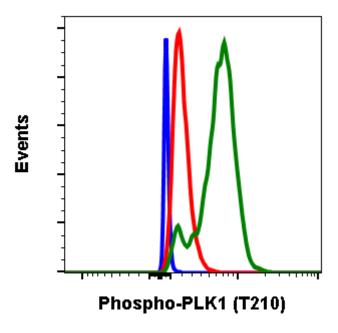
| Applications          | Detection  | Clonality  | Isotype     |  |  |
|-----------------------|--|------------|-------------|--|--|
| Flow Cytometry        | Anti-Rabbit IgG  | Monoclonal | Rabbit IgGk |  |  |
| Format:               | Unconjugated   |            |             |  |  |
| Cross Reactivity:     | Predicted to work with mouse, rat and other homologues.  |            |             |  |  |
| Formulation:          | 1X PBS, 0.02% NaN3, 50% Glycerol, 0.1% BSA   |            |             |  |  |
| Preparation:          | Protein A+G  |            |             |  |  |
| Reactivity:           | Human  |            |             |  |  |
| Recommended<br>Usage: | $1\mu g/mL$ – $0.001\mu g/mL$ . It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.   |            |             |  |  |
| Immunogen:            | A synthetic phospho-peptide corresponding to residues surrounding Thr210 of human phospho PLK1   |            |             |  |  |
| Description:          | PLK1 is activated by phosphorylation of Thr210 in its activation loop. When dephosphorylated, PLK1 auto-inhibition occurs when the Polo-box domain (PDB) binds (and thus inhibits) the kinase domain. PLK1 phosphorylation is directly linked to the cell cycle, as phosphorylation occurs during mitosis but not during interphase. PLK1 is required for successful progression through the mitotic phase. Aurora A phosphorylates PLK1, with the G2-induced Bora protein directly interacting with PLK1 to relieve auto-inhibition. Small-molecule PLK1 inhibitors have played an important role in elucidating PLK1's activities in the cell and have demonstrated the potential of PLK1 as an anti-cancer target. PLK1 inhibition is an efficient cell killer. |            |             |  |  |
| References:           | Petronczki M, Lenart P, and Peters J. (2008) Developmental Cell. 14:646-659. Seki A, Coppinger JA, Jang C, Yates III JR, and Fang G. (2008) Science. 320:1655-1658.  |            |             |  |  |





| IgG     | Treatment  | Peptide Block | Median : BL1-A |
|---------|------------|---------------|----------------|
| C2      | Nocodazole | Non-phos.     | 5505           |
| C2      | Ctrl       | Non-phos.     | 1699           |
| C2      | Nocodazole | Phospho.      | 1031           |
| C2      | Ctrl       | Phospho.      | 569            |
| C2      | Nocodazole | -             | 6619           |
| C2      | Ctrl       | -             | 1868           |
| 2' only | Ctrl       | -             | 539            |

Peptide blocking flow cytometric analysis of HeLa cells secondary antibody only negative control (light blue) or untreated (red) or treated with nocodazole (green) or untreated and blocked with phospho peptide (black) or treated and blocked with phospho peptide (gold) or untreated and blocked with non-phospho peptide (dark blue) or treated and blocked with non-phospho peptide (purple) using Phospho-PLK1 (Thr210) antibody PLK1T210-C2 at 0.01 µg/mL. Cat. #2346.



Flow cytometric analysis of HeLa cells secondary antibody only negative control (blue) or untreated (red) or treated with nocodazole (green) using Phospho-PLK1 (Thr210) antibody PLK1T210-C2 at  $0.01 \, \mu g/mL$ . Cat. #2346.