

Catalog No. LF-MA0194

MONOCLONAL ANTIBODY



Anti-Polo-like kinase 1(PLK1)(18D4)

Background : Polo-like kinases (Plks) are important regulators of the cell cycle. Plk1, the most studied Plk, has been implicated in regulating centrosome maturation, mitotic entry, sister chromatid cohesion, the anaphase-promoting complex/cyclosome (APC/C), and cytokinesis. Sister chromatid separation and the subsequent formation of two genetically identical daughter cells depend on the symmetrical attachment of all chromosomes to the mitotic spindle, a process called chromosome biorientation. Several mitosis-specific protein kinases have been implicated in bipolar spindle assembly and chromosome biorientation. For example, Cdk1 (cyclin-dependent kinase 1) is known to phosphorylate Eg5, a kinesin that is required for the migration of centrosomes and is thus needed for the formation of bipolar spindles. At the onset of mitosis, Plks contribute to the activation of Cdk1-cyclinB, and they are also required for the inactivation of Cdk1 and exit from mitosis. Plks are important regulators of the APC/C, a key component of the ubiquitin-dependent proteolytic degradation pathway.

Immunogen : Recombinant human protein purified from *E.coli* (GST/His-Plk1)

Host : Mouse

Clone number : 18D4

Isotype : IgG1, k

Size : 100 μ l

Compositon : Hepes with 0.15M NaCl, 0.01% BSA, 0.03% sodium azide, and 50% glycerol

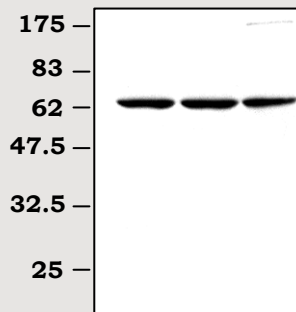
Positive control : A431 cell lysate

Storage : Store for 1 year at -20°C from date of shipment

Species cross reactivity

Human	Mouse	Rat
+	+	+

M.W.(kDa) 1 2 3



Immunoblot Analysis of cell lysates

Lane 1 : K562 cell lysate

Lane 2 : A431 cell lysate

Lane 3 : HepG2 cell lysate

Applications :

ELISA

Western blotting (1: 1,000)

Immunoprecipitation (1 μ l/400 μ l cell lysates)

Background Reference :

1) Sumara I. et al., 2004, Curr Biol. 14:1712-1722

2) Nigg E.A., 1999, Curr Opin Cell Biol. 10:776-783

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NOT FOR DIAGNOSTIC OR THERAPEUTIC USE