

Anti-PLK1 Antibody Picoband® (monoclonal, 6D11)

Catalog Number: M00182

About PLK1

Serine/threonine-protein kinase PLK1, also known as polo-like kinase 1 (PLK-1) or serine/threonine-protein kinase 13 (STPK13), is an enzyme that in humans is encoded by the PLK1 (polo-like kinase 1) gene. Plk1 is an early trigger for G2/M transition. It supports the functional maturation of the centrosome in late G2/early prophase and establishment of the bipolar spindle. Also, Plk1 phosphorylates and activates cdc25C, a phosphatase that dephosphorylates and activates the cyclinB/cdc2 complex. Studies have shown that the loss of PLK1 expression can induce pro-apoptotic pathways and inhibit growth. Based on yeast and murine studies of meiosis, human PLK1 may also have a regulatory function in meiosis.

Overview

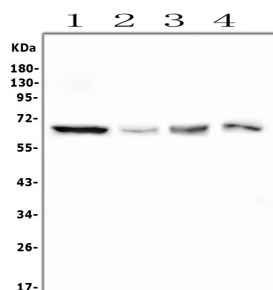
Product Name	Anti-PLK1 Antibody Picoband® (monoclonal, 6D11)
Reactive Species	Human, Monkey
Description	Boster Bio Anti-PLK1 Antibody Picoband® (monoclonal, 6D11) catalog # M00182. Tested in WB applications. This antibody reacts with Human, Monkey. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	WB
Clonality	Monoclonal 6D11
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Mouse
Uniprot ID	P53350

Technical Details

Immunogen	E.coli-derived human PLK1 recombinant protein (Position: K86-N430). Human PLK1 shares 95.4% and 96.2% amino acid (aa) sequence identity with mouse and rat PLK1, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG2b
Form	Lyophilized

Concentration	0
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml

Anti-PLK1 Antibody Picoband® (monoclonal, 6D11) (M00182) Images



Western blot analysis of PLK1 using anti-PLK1 antibody (M00182). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human HeLa whole cell lysates Lane 2: monkey COS-7 whole cell lysates Lane 3: human Raji whole cell lysates Lane 4: human U2OS whole cell lysates After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-PLK1 antigen affinity purified monoclonal antibody (Catalog # M00182) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for PLK1 at approximately 68KD. The expected band size for PLK1 is at 68KD.

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