Anti-CDK2 Antibody (Clone#5B12D1)

Catalog Number: *M00166-3*

BOSTER
antibody and ELISA experts
BOSTER BIOLOGICAL TECHNOLOGY
Building C21, 3rd to 5th Floors, Optics Valley Biopharmaceutical Accelerator,
East Lake High-Tech Development Zone, Wuhan.
Web: www.boster.com ***Phone:*** 027-67845390/1/2 ***Email:*** boster@boster.com

Basic Information

Product Name	Anti-CDK2 Antibody (Clone#5B12D1)
Gene Name	CDK2
Source	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Species Reactivity	human, mouse, rat
Tested Application	WB, IHC, FCM
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
Immunogen	E.coli-derived human Cdk2 recombinant protein (Position: E81-L298). Human Cdk2 shares 98.6% amino acid (aa) sequence identity with rat Cdk2.
Concentration	500 ug/ml
Purification	protein G purified.
Observed MW	30-34 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.

Storage

12 months from date of receipt，-20℃ as supplied. 6 months 2 to 8℃ after reconstitution. Avoid repeated freezing and thawing.

Background Information

CDK2, Cyclin-Dependent Kinase2, is also known as P33. The CDK2 protein was highly homologous to p34(CDC2) kinase and more significantly homologous to Xenopus Eg1 kinase, suggesting that CDK2 is the human homolog of Eg1. The CDK2 gene is mapped to 12q13, the same region to which the CDK4 gene maps. Human cyclin A binds independently to 2 kinases, p34(cdc2) or p33. In adenovirus-transformed cells, the viral E1A oncoprotein seems to associate with p33/cyclin A but not with p34(cdc2)/cyclin A. The gene for p33 shares 65% sequence identity with p34(cdc2). P33(cdk2) plays a unique role in cell cycle regulation of vertebrate cells.

Reference

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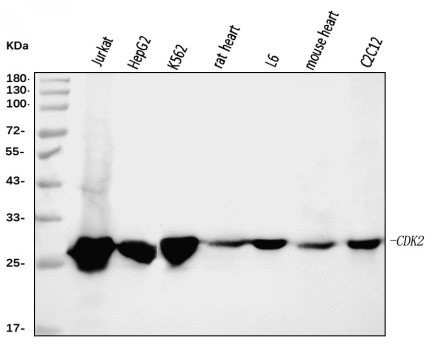
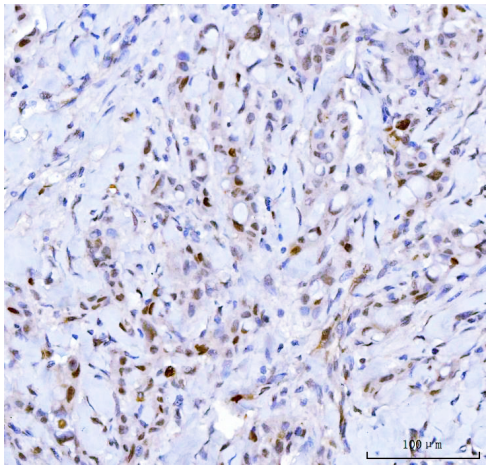
Anti-CDK2 Antibody (Clone#5B12D1)被引用在6文献中。

Selected Validation Data



Western blot analysis of CDK2 using anti-CDK2 antibody (M00166-3). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: Jurkat whole cell lysates,
Lane 2: HepG2 whole cell lysates,
Lane 3: K562 whole cell lysates,
Lane 4: rat heart tissue lysates,
Lane 5: L6 whole cell lysates,
Lane 6: mouse heart tissue lysates,
Lane 7: C2C12 whole cell lysates.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-CDK2 antigen affinity purified monoclonal antibody (M00166-3) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for CDK2 at approximately 30-34 kDa. The expected band size for CDK2 is at 34 kDa.



IHC analysis of CDK2 using anti-CDK2 antibody (M00166-3). CDK2 was detected in a paraffin-embedded section of human breast cancer tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was incubated with mouse anti-CDK2 Antibody (M00166-3) at a dilution of 1:200 and developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB (Catalog # AR1027) as the chromogen.

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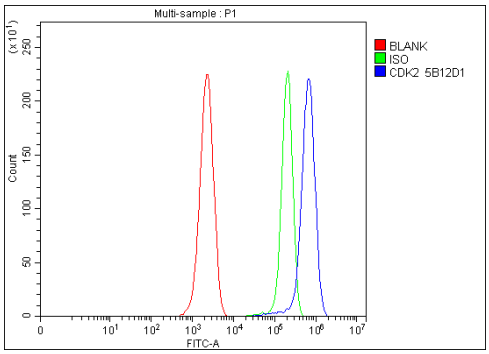

Flow Cytometry analysis of ANA-1 cells using anti-CDK2 antibody (M00166-3).
Overlay histogram showing ANA-1 cells stained with M00166-3 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-CDK2 Antibody (M00166-3) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.