

## Anti-Cdk2 Antibody Picoband™

Catalog Number: PB9534

### About CDK2

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.

### Overview

Product Name	Anti-Cdk2 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-Cdk2 Antibody Picoband™ catalog # PB9534. Tested in Flow Cytometry, WB applications. This antibody reacts with Human.
Application	Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg NaN <sub>3</sub> .
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	Rabbit
Uniprot ID	P24941

### Technical Details

Immunogen	E.coli-derived human Cdk2 recombinant protein (Position: E81-L298). Human Cdk2 shares 98.6% amino acid (aa) sequence identity with rat Cdk2.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Human</p> <p>Flow Cytometry, 1-3 ug/1x10<sup>6</sup> cells, Human</p>

## Anti-Cdk2 Antibody Picoband™ (PB9534) Images

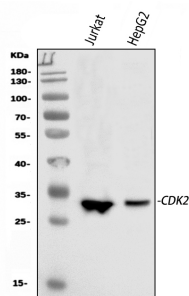


Figure 1. Western blot analysis of Cdk2 using anti-Cdk2 antibody (PB9534).

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 30 ug of sample under reducing conditions.

Lane 1: human Jurkat whole cell lysates,

Lane 2: human HepG2 whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Cdk2 antigen affinity purified polyclonal antibody (Catalog # PB9534) 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-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Cdk2 at approximately 33 kDa. The expected band size for Cdk2 is at 33 kDa.

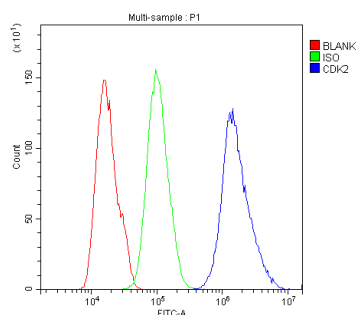


Figure 2. Flow Cytometry analysis of U2OS cells using anti-Cdk2 antibody (PB9534).

Overlay histogram showing U2OS cells stained with PB9534 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Cdk2 Antibody (PB9534, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

## 22 Publications Citing This Product

1. PubMed ID: 10.3892/or.2016.4935, Platycodin D, a metabolite of Platycodin grandiflorum, inhibits highly metastatic MDA-MB-231 breast cancer growth in vitro and in vivo by targeting the MDM2 oncogene
2. PubMed ID: 10.3892/mmr.2016.5149, Effects of tripterygium glycosides on restenosis following endovascular treatment
3. PubMed ID: 10.1007/s12032-009-9286-9, Growth inhibition and cell-cycle arrest of human gastric cancer cells by Lycium barbarum polysaccharide

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