

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

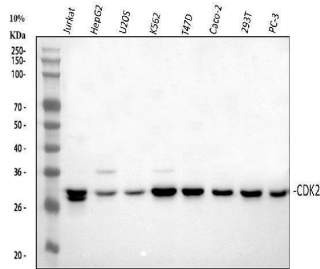
Product Name	Anti-Cdk2 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Cdk2 Antibody Picoband® catalog # PB9534. Tested in IF, IHC, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
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

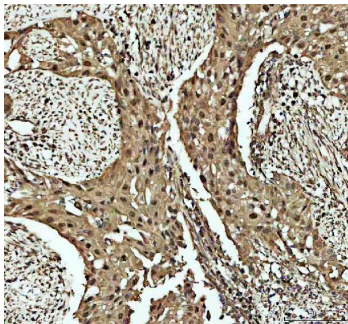
Immunogen	E.coli-derived human Cdk2 recombinant protein (Position: E81-L298). Human Cdk2 shares 98.6% amino acid (aa) sequence identity with rat Cdk2.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
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	Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human

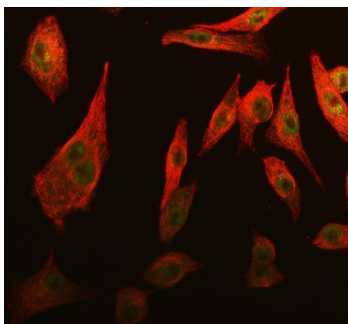
Anti-Cdk2 Antibody Picoband® (PB9534) Images



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, Lane 3: human U2OS whole cell lysates, Lane 4: human K562 whole cell lysates, Lane 5: human T47D whole cell lysates, Lane 6: human CACO-2 whole cell lysates, Lane 7: human 293T whole cell lysates, Lane 8: human PC-3 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 30 kDa. The expected band size for Cdk2 is at 30, 33 kDa.



IHC analysis of Cdk2 using anti-Cdk2 antibody (PB9534). Cdk2 was detected in a paraffin-embedded section of human invasive urothelial carcinoma of the bladder with squamous differentiation tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Cdk2 Antibody (PB9534) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IF analysis of Cdk2 using anti-Cdk2 antibody (PB9534) and anti-Beta Tubulin antibody (M01857-3). Cdk2 was detected in immunocytochemical section of A549 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2 ug/mL rabbit anti-Cdk2 Antibody (PB9534) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and DyLight®594 Conjugated Goat Anti-Mouse IgG (BA1141) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

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

Visit bosterbio.com/anti-cdk2-picoband-trade-antibody-pb9534-boster.html to see all 22 publications.

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Anti-Cdk2 Antibody

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