BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-CDK1 Antibody Picoband™

Catalog Number: PB9533

About CDK1

CDC2, Cell Division Cycle 2, is also known as CDK1 (Cyclin-dependent Kinase 1). CDC2 is a catalytic subunit of a protein kinase complex, called the M-phase promoting factor that induces entry into mitosis and is universal among eukaryotes. In HeLa cells CDC2 is the most abundant phosphotyrosine-containing protein and its phosphotyrosine content is subject to cell cycle regulation. CDC2 gene is located on chromosome 10.

Overview

Product Name	Anti-CDK1 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CDK1 Antibody Picoband™ catalog # PB9533. Tested in Flow Cytometry, IF, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, IHC-F, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 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	Rabbit
Uniprot ID	P06493

Technical Details

Immunogen	E.coli-derived human CDK1 recombinant protein (Position: L66-M297). Human CDK1 shares 97.8% and 98.3% amino acid (aa) sequence identity with mouse and rat CDK1, respectively.
Predicted Reactive Species	Hamster
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), IHC(F) 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.

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat, By Heat Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry, 1-3ug/1x10^{6} cells, Human

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-CDK1 Antibody Picoband™ (PB9533) Images

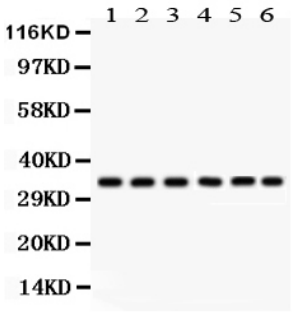


Figure 1. Western blot analysis of CDK1 using anti-CDK1 antibody (PB9533).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.
Lane 1: Rat Thymus Tissue Lysate at 50ug,
Lane 2: Rat Spleen Tissue Lysate at 50ug,
Lane 3: MCF-7 Whole Cell Lysate at 40ug,
Lane 4: HELA Whole Cell Lysate at 40ug,
Lane 5: JURKAT Whole Cell Lysate at 40ug,
Lane 6: NIH3T3 Whole Cell Lysate at 40ug.
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-CDK1 antigen affinity purified polyclonal antibody (Catalog # PB9533) 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 CDK1 at approximately 34 kDa. The expected band size for CDK1 is at 34 kDa.

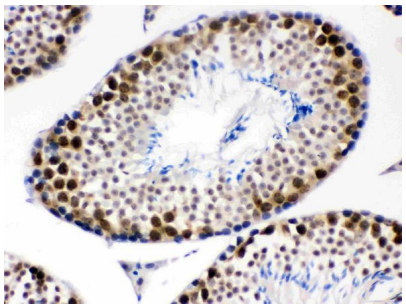


Figure 2. IHC analysis of CDK1 using anti-CDK1 antibody (PB9533).
CDK1 was detected in a paraffin-embedded section of mouse testis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-CDK1 Antibody (PB9533) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

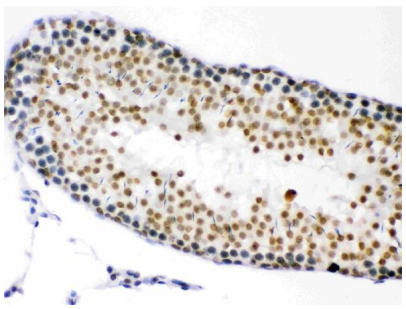
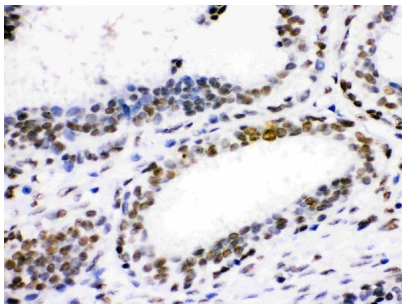


Figure 3. IHC analysis of CDK1 using anti-CDK1 antibody (PB9533).
CDK1 was detected in a paraffin-embedded section of rat testis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-CDK1 Antibody (PB9533) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Figure 4. IHC analysis of CDK1 using anti-CDK1 antibody (PB9533).

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com



CDK1 was detected in a paraffin-embedded section of human mammary cancer 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 1 ug/ml rabbit anti-CDK1 Antibody (PB9533) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

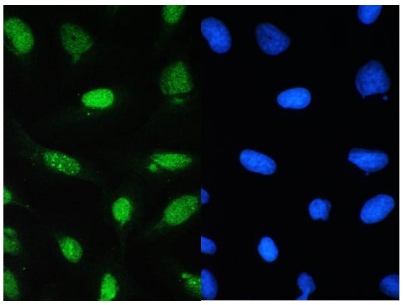


Figure 5. IF analysis of CDK1 using anti-CDK1 antibody (PB9533).
CDK1 was detected in immunocytochemical section of U20S cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-CDK1 Antibody (PB9533) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

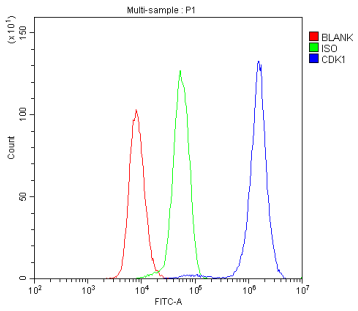


Figure 6. Flow Cytometry analysis of U937 cells using anti-CDK1 antibody (PB9533).
Overlay histogram showing U937 cells stained with PB9533 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CDK1 Antibody (PB9533,1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

17 Publications Citing This Product

1. PubMed ID: 10.3892/or.2016.4742, A novel cell cycle blocker extracted from Stellera chamaejasme L. inhibits the proliferation of hepatocarcinoma cells

2. PubMed ID: 10.1080/13880209.2021.1931354, Extract of Ganoderma sinensis spores induces cell cycle arrest of hepatoma cell via endoplasmic reticulum stress

3. PubMed ID: 33779025, Blakemore D,Vilaplana-Lopera N,Almaghrabi R,Gonzalez E,Moya M,Ward C,Murphy G,Gambus A,Petermann E,Stewart GS,García P.MYBL2 and ATM suppress replication stress in pluripotent stem cells.EMBO Rep.2021 Mar 28:e51120.doi:10.15252/embr.202051120.Epub ahead of print.PMID:33779025.

Visit bosterbio.com/anti-cdk1-picoband-trade-antibody-pb9533-boster.html to see all 17 publications.

Submit a product review to Biocompare.com

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-CDK1 Antibody ™