

Anti-p27 KIP 1/CDKN1B Antibody Picoband®

Catalog Number: PB9070

About CDKN1B

Cyclin-dependent kinase inhibitor 1B (p27KIP1), also known as KIP1 or P27, is an enzyme inhibitor that in humans is encoded by the CDKN1B gene. It encodes a protein which belongs to the Cip/Kip family of cyclin dependent kinase (Cdk) inhibitor proteins. It is mapped to 12p13.1. p27KIP1 can inhibit both CDK activation and the kinase activity of assembled and activated cyclin-CDK. The function of p27KIP1 is associated with an aggressive phenotype in human breast cancer. Downregulation of p27KIP1 by CK2- α -prime is necessary for development of agonist- and stress-induced cardiac hypertrophy.

Overview

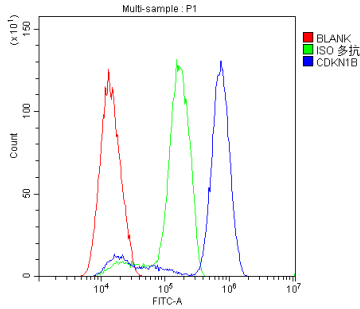
Product Name	Anti-p27 KIP 1/CDKN1B Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-p27 KIP 1/CDKN1B Antibody Picoband® catalog # PB9070. Tested in Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that 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	Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , and 0.05 mg NaN ₃ . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	P46527

Technical Details

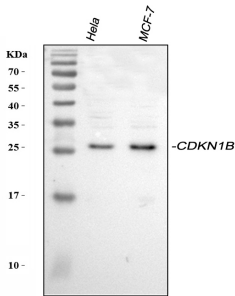
Immunogen	E.coli-derived human P27 KIP 1 recombinant protein (Position: S10-T198). Human P27 KIP 1 shares 87% amino acid (aa) sequence identity with mouse P27 KIP 1.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for 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 Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human

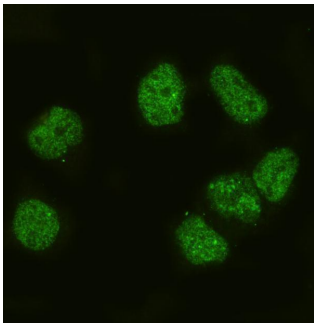
Anti-p27 KIP 1/CDKN1B Antibody Picoband® (PB9070) Images



Flow Cytometry analysis of SiHa cells using anti-p27 KIP 1/CDKN1B antibody (PB9070). Overlay histogram showing SiHa cells stained with PB9070 (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 rabbit anti-p27 KIP 1/CDKN1B Antibody (PB9070, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of p27 KIP 1/CDKN1B using anti-p27 KIP 1/CDKN1B antibody (PB9070). 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 HeLa whole cell lysates, Lane 2: human MCF-7 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-p27 KIP 1/CDKN1B antigen affinity purified polyclonal antibody (Catalog # PB9070) 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 p27 KIP 1/CDKN1B at approximately 27 kDa. The expected band size for p27 KIP 1/CDKN1B is at 22 kDa.



IF analysis of p27 KIP 1/CDKN1B using anti-p27 KIP 1/CDKN1B antibody (PB9070). p27 KIP 1/CDKN1B was detected in an immunocytochemical section of U2OS cells. 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 5 ug/mL rabbit anti-p27 KIP 1/CDKN1B Antibody (PB9070) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was 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.

1. PubMed ID: 22108090, Li Bh, Xu Sb, Li F, Zou Xg, Saimaiti A, Simayi D, Wang Yh, Zhang Y, Yuan J, Zhang Wj. Cell Signal. 2012 Mar;24(3):718-25. Doi: 10.1016/J.Cellsig.2011.11.005. Epub 2011 Nov 13. Stat6 Activity-Related Th2 Cytokine Profile And Tumor Growth Advantage ...

2. PubMed ID: 21575146, Hepatitis B virus induces G1 phase arrest by regulating cell cycle genes in HepG2.2.15 cells

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Anti-p27 KIP 1/CDKN1B Antibody

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