

## Anti-Cyclin B1/CCNB1 Antibody Picoband®

Catalog Number: PB9104

### About CCNB1

CCNB also known as Cyclin B1, is a protein that in humans is encoded by the CCNB1 gene, and it is mapped to 5q13.2. The protein encoded by this gene is a regulatory protein involved in mitosis. The gene product complexes with p34 (cdc2) to form the maturation-promoting factor (MPF). Two alternative transcripts have been found, a constitutively expressed transcript and a cell cycle-regulated transcript, that is expressed predominantly during G2/M phase. The different transcripts result from the use of alternate transcription initiation sites. CCNB contributes to the switch-like all or none behavior of the cell in deciding to commit to mitosis. Its activation is well-regulated, and positive feedback loops ensure that once the cyclin B1-Cdk1 complex is activated, it is not deactivated.

### Overview

Product Name	Anti-Cyclin B1/CCNB1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Cyclin B1/CCNB1 Antibody Picoband® catalog # PB9104. 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 <sub>2</sub> HPO <sub>4</sub> , and 0.05 mg NaN <sub>3</sub> . *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	P14635

### Technical Details

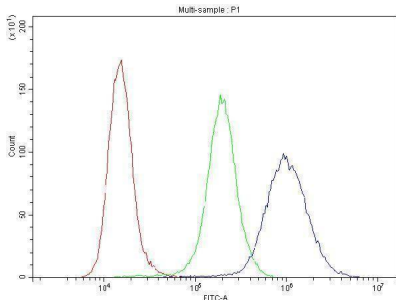
Immunogen	E.coli-derived human Cyclin B1 recombinant protein (Position: M1-V433). Human Cyclin B1 shares 86% and 85% amino acid (aa) sequences identity with mouse and rat Cyclin B1, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) 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, 2ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 <sup>6</sup> cells, Human

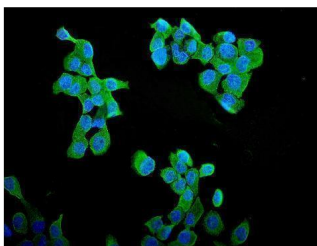
## Anti-Cyclin B1/CCNB1 Antibody Picoband® (PB9104) Images



Western blot analysis of CCNB1 using anti-CCNB1 antibody (PB9104). 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 50ug of sample under reducing conditions. lane 1: HELA whole cell lysate, lane 2: 293T whole cell lysate, lane 3: MCF-7 whole cell lysate, lane 4: COLO320 whole cell lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-CCNB1 antigen affinity purified polyclonal antibody (Catalog # PB9104) 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 1:10000 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 CCNB1 at approximately 56KD.



Flow Cytometry analysis of THP-1 cells using anti-CCNB1 antibody (PB9104). Overlay histogram showing THP-1 cells stained with PB9104 (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-CCNB1 Antibody (PB9104, 1ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



IF analysis of CCNB1 using anti-CCNB1 antibody (PB9104). CCNB1 was detected in immunocytochemical section of A431 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 2ug/mL rabbit anti-CCNB1 Antibody (PB9104) 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.

## 20 Publications Citing This Product

1. PubMed ID: PMID:25337216, Knockdown of protein tyrosine phosphatase receptor U inhibits growth and motility of gastric cancer cells

2. PubMed ID: 10.1590/S0100-879X2010007500004, Growth inhibitory effect and Chk1-dependent signaling involved in G2/M arrest on human gastric cancer cells induced by diallyl disulfide

3. PubMed ID: 10.1080/07357900701788130, Suppression of C-myc Expression Associates with Anti-Proliferation of Aloe-Emodin on Gastric Cancer Cells

Visit [bosterbio.com/anti-cyclin-b1-picoband-trade-antibody-pb9104-boster.html](http://bosterbio.com/anti-cyclin-b1-picoband-trade-antibody-pb9104-boster.html) to see all 20 publications.

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Anti-Cyclin B1/CCNB1 Antibody

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