

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.
Application	Flow Cytometry, IF, 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	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.
Predicted Reactive Species	Bovine, Horse, Monkey, Rabbit
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	<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>Immunocytochemistry/Immunofluorescence, 2ug/ml, Human</p> <p>Flow Cytometry, 1-3ug/1x10⁶ cells, Human</p>

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



Figure 1. 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. The expected band size for CCNB1 is at 48KD.

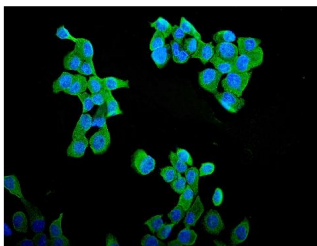


Figure 2. IF analysis of CCNB1 using anti-CCNB1 antibody (PB9104). CCNB1 was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 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.

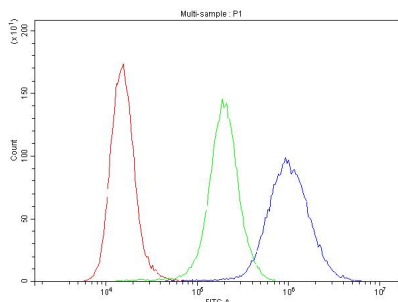


Figure 3. Flow Cytometry analysis of THP-1 cells using anti-CCNB1 antibody (PB9104). Overlay histogram showing THP-1 cells stained with PB9104 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CCNB1 Antibody (PB9104,1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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

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