

## Anti-beta Catenin/CTNNB1 Antibody Picoband™

Catalog Number: A00004

## About CTNNB1

Catenins are proteins found in complexes with cadherin cell adhesion molecules of animal cells. The first two catenins that were identified became known as alpha-catenin and beta-catenin. Alpha-catenin can bind to beta-catenin and can also bind actin. Beta-catenin binds the cytoplasmic domain of some cadherins. Beta-catenin is an adherens junction protein. It plays an important role in various aspects of liver biology including liver development (both embryonic and postnatal), liver regeneration following partial hepatectomy. HGF-induced hepatpomegaly, liver zonation, and pathogenesis of liver cancer.

## Overview

Product Name	Anti-beta Catenin/CTNNB1 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-beta Catenin/CTNNB1 Antibody Picoband™ catalog # A00004. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal IC-16
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg 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	CTNNB1: P35222

## **Technical Details**

Immunogen	E. coli-derived human beta Catenin recombinant protein (Position: A2-K233).
Predicted Reactive Species	Chicken
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	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 Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Immunofluorescence, 5ug/ml Flow Cytometry, 1-3ug/1x10 <sup>6</sup> cellsbr> Direct ELISA, 0.1-0.5ug/ml



### Anti-beta Catenin/CTNNB1 Antibody Picoband<sup>™</sup> (A00004) Images



Figure 1. Western blot analysis of CTNNB1 using anti-CTNNB1 antibodv (A00004). 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. Lane 3: human A431 whole cell lysates, Lane 4: human RT4 whole cell lysates, Lane 5: human SiHa whole cell lysates, Lane 6: human T47D whole cell lysates, Lane 7: rat brain tissue lysates, Lane 8: rat liver tissue lysates. Lane 9: mouse brain tissue lysates, Lane 10: mouse liver tissue 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-CTNNB1 antigen affinity purified polyclonal antibody (Catalog # A00004) 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 CTNNB1 at approximately 95 kDa. The expected band size for CTNNB1 is at 95 kDa.



Figure 2. IF analysis of CTNNB1 using anti-CTNNB1 antibody (A00004).

CTNNB1 was detected in a paraffin-embedded section of human intestine 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 5 ug/mL rabbit anti-CTNNB1 Antibody (A00004) overnight at 4°C. Biotin conjugated goat anti-rabbit IgG (BA1003) was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Cy3 Conjugated Avidin (BA1037). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Figure 3. IHC analysis of CTNNB1 using anti-CTNNB1 antibody (A00004).

CTNNB1 was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with

# BOSTER antibody and ELISA experts

#### BOSTER BIOLOGICAL TECHNOLOGY 3942 B Valley Ave, Pleasanton, CA 94566

888-466-3604 | support@bosterbio.com | www.bosterbio.com



1ug/ml rabbit anti-CTNNB1 Antibody (A00004) 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 CTNNB1 using anti-CTNNB1 antibody (A00004).

CTNNB1 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CTNNB1 Antibody (A00004) 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. IHC analysis of CTNNB1 using anti-CTNNB1 antibody (A00004).

CTNNB1 was detected in paraffin-embedded section of human prostatic cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CTNNB1 Antibody (A00004) 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 6. IHC analysis of CTNNB1 using anti-CTNNB1 antibody (A00004).

CTNNB1 was detected in paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CTNNB1 Antibody (A00004) 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 7. IHC analysis of CTNNB1 using anti-CTNNB1 antibody (A00004).

CTNNB1 was detected in paraffin-embedded section of mouse intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CTNNB1 Antibody (A00004) 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 8. IHC analysis of CTNNB1 using anti-CTNNB1 antibody (A00004).

CTNNB1 was detected in paraffin-embedded section of mouse heart tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CTNNB1 Antibody (A00004) 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 9. IHC analysis of CTNNB1 using anti-CTNNB1 antibody (A00004).

CTNNB1 was detected in paraffin-embedded section of mouse liver tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CTNNB1 Antibody (A00004) 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 10. IHC analysis of CTNNB1 using anti-CTNNB1 antibody (A00004).

CTNNB1 was detected in paraffin-embedded section of rat heart tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CTNNB1 Antibody (A00004) 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 11. IHC analysis of CTNNB1 using anti-CTNNB1 antibody (A00004).

CTNNB1 was detected in paraffin-embedded section of rat intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CTNNB1 Antibody (A00004) 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 12. IHC analysis of CTNNB1 using anti-CTNNB1 antibody (A00004).

CTNNB1 was detected in paraffin-embedded section of rat liver tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CTNNB1 Antibody (A00004) 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 13. IHC analysis of CTNNB1 using anti-CTNNB1 antibody (A00004).

CTNNB1 was detected in paraffin-embedded section of rat spleen tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CTNNB1 Antibody (A00004) 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 14. Flow Cytometry analysis of A549 cells using anti-CTNNB1 antibody (A00004).

Overlay histogram showing A549 cells stained with A00004 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CTNNB1 Antibody (A00004,  $1ug/1x10^6$  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 ( $1ug/1x10^6$ ) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



#### BOSTER BIOLOGICAL TECHNOLOGY 3942 B Valley Ave, Pleasanton, CA 94566

888-466-3604 | support@bosterbio.com | www.bosterbio.com



#### antibody (A00004)

CTNNB1 was detected in immunocytochemical section of A431 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-CTNNB1 Antibody (A00004) 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.

### **6** Publications Citing This Product

1. PubMed ID: 32519176, Piao HY, Guo S, Wang Y, Zhang J. Exosome-transmitted IncRNA PCGEM1 promotes invasive and metastasis in gastric cancer by maintaining the stability of SNAI1. Clin Transl Oncol. 2020 Jun 9. doi:10.1007/s12094-020-02412-9. Epub ahead of print. PMID: 32519176.

2. PubMed ID: 26918831, Anti-cancer drug 3, 3%u2032-diindolylmethane activates Wnt4 signaling to enhance gastric cancer cell stemness and tumorigenesis

3. PubMed ID: 18681964, Dark Aberrant Crypt Foci with activated Wnt pathway are related to tumorigenesis in the colon of AOM-treated rat

Visit <u>bosterbio.com/anti-beta-catenin-picoband-trade-antibody-a00004-boster.html</u> to see all 6 publications.

### Submit a product review to Biocompare.com



Submit a review of this product to Biocompare.com to receive a \$20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.

Anti-beta Catenin/CTNNB1 Antibody ™