BOSTER
antibody and ELISA experts

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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. 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	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
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	P35222

Technical Details

Immunogen	E. coli-derived human beta Catenin recombinant protein (Position: A2-K233).
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.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Immunocytochemistry/Immunofluorescence, 2ug/ml Immunofluorescence, 5ug/ml Flow Cytometry (Fixed), 1-3ug/1x10^6 cellsbr> ELISA, 0.1-0.5ug/ml

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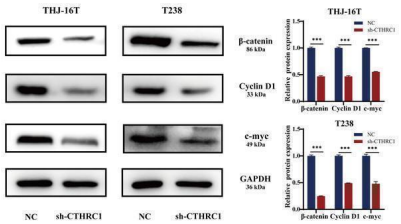
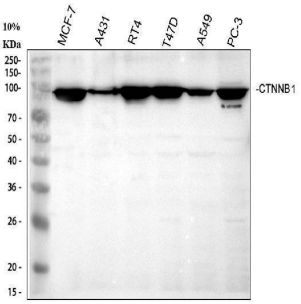
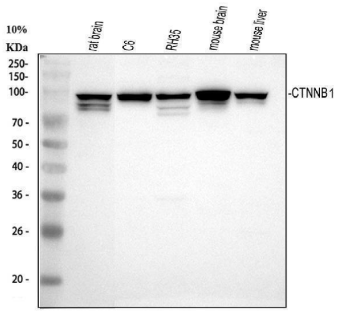
Anti-beta Catenin/CTNNB1 Antibody Picoband® (A00004) Images



CTHRC1 knockdown inhibited the Wnt/beta-catenin pathway. Western blotting was used to analyze the beta-catenin, Cyclin D1, and c-myc expression in CTHRC1 knockdown and control group. ***P < 0.001 . Download full-size image DOI:Index in PubMed under a CC BY license. PMID: 37273536



Western blot analysis of CTNNB1 using anti-CTNNB1 antibody (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 MCF-7 whole cell lysates, Lane 2: human A431 whole cell lysates, Lane 3: human RT4 whole cell lysates, Lane 4: human T47D whole cell lysates, Lane 5: human A549 whole cell lysates, Lane 6: human PC-3 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-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.



Western blot analysis of CTNNB1 using anti-CTNNB1 antibody (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: rat brain tissue lysates, Lane 2: rat C6 whole cell lysates, Lane 3: rat RH35 whole cell lysates, Lane 4: mouse brain tissue lysates, Lane 5: 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.

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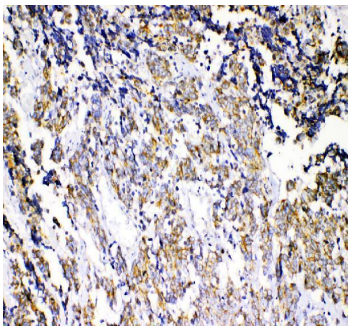
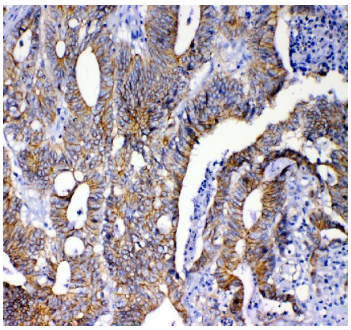
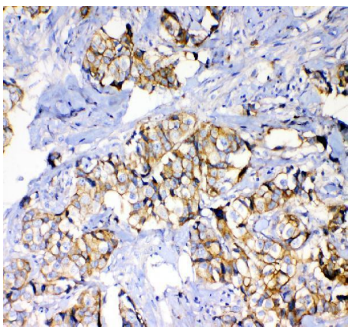


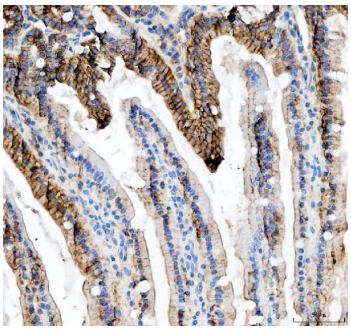
IHC analysis of CTNNB1 using anti-CTNNB1 antibody (A00004). CTNNB1 was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CTNNB1 Antibody (A00004) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of CTNNB1 using anti-CTNNB1 antibody (A00004). CTNNB1 was detected in a paraffin-embedded section of human colon 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 2 ug/ml rabbit anti-CTNNB1 Antibody (A00004) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of CTNNB1 using anti-CTNNB1 antibody (A00004). CTNNB1 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 2 ug/ml rabbit anti-CTNNB1 Antibody (A00004) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of CTNNB1 using anti-CTNNB1 antibody (A00004). CTNNB1 was detected in a paraffin-embedded section of mouse small intestine 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 2 ug/ml rabbit anti-CTNNB1 Antibody (A00004) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

IHC analysis of CTNNB1 using anti-CTNNB1 antibody (A00004). CTNNB1 was detected in a paraffin-embedded section of rat small intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope

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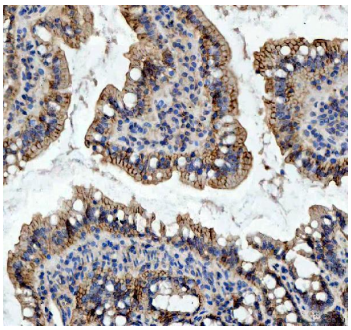
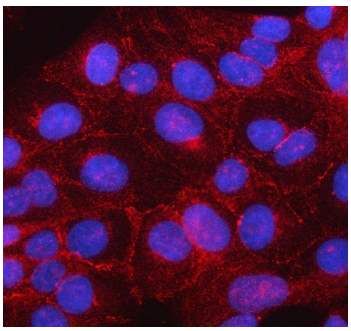
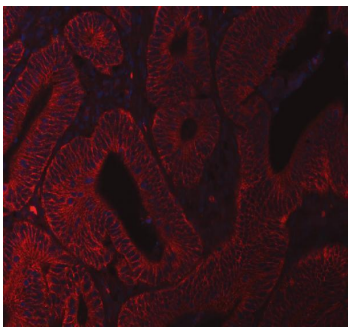


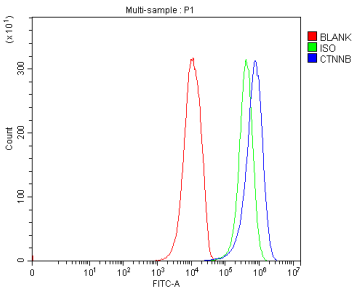
retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CTNNB1 Antibody (A00004) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IF analysis of CTNNB1 using anti-CTNNB1 antibody (A00004). CTNNB1 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-CTNNB1 Antibody (A00004) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 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.



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. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 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.



Flow Cytometry analysis of Hela cells using anti-CTNNB1 antibody (A00004). Overlay histogram showing Hela cells stained with A00004 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-CTNNB1 Antibody (A00004, 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.

6 Publications Citing This Product

1. PubMed ID: 32519176, Piao HY,Guo S,Wang Y,Zhang J.Exosome-transmitted lncRNA 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.

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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

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