

Anti-beta Catenin/CTNNB1 Antibody Picoband®

Catalog Number: PA1212

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 hepatomegaly, 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 catalog # PA1212. Tested in IF, IHC, IHC-F, 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	IF, IHC, IHC-F, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg 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	P35222

Technical Details

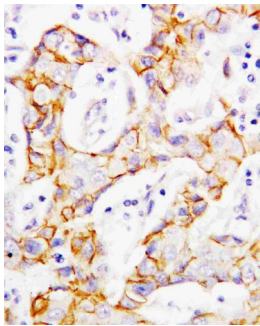
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human beta Catenin, identical to the related rat and mouse sequences.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P), IHC(F) 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	Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Mouse, Rat, Human Immunocytochemistry , 0.5-1ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5ug/ml, Human

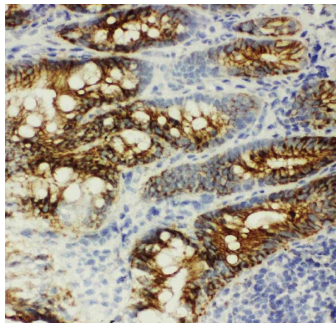
Anti-beta Catenin/CTNNB1 Antibody Picoband® (PA1212) Images



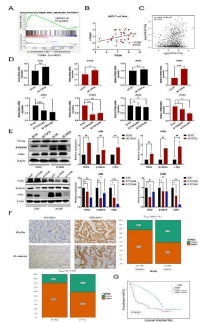
Anti-beta Catenin antibody, PA1212, Western blotting Lane 1: MM453 Cell Lysate Lane 2: MCF-7 Cell Lysate Lane 3: HELA Cell Lysate



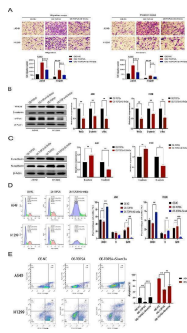
Anti-beta Catenin antibody, PA1212, IHC(P) IHC(P): Human Mammary Cancer Tissue



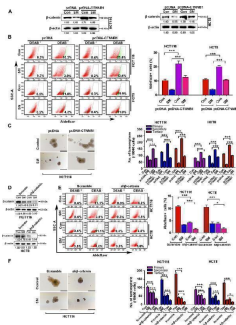
Anti-beta Catenin antibody, PA1212, IHC(F) IHC(F): Rat Intestine Tissue



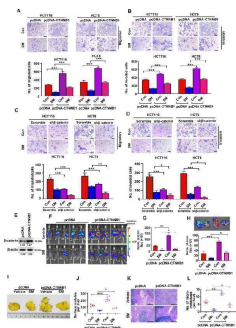
TOP2A is involved in the progression and development of NSCLC via the Wnt/beta-catenin signaling cascade. (A) TCGA enrichment analysis revealed that TOP2A expression is enriched in the Wnt signaling pathway (n = 1037). (B) Several NSCLC cell lines exhibited a clear association between the transcription of TOP2A and beta-catenin. (C) The online GEPIA exhibited a correlation between TOP2A and WNT3A gene expression levels. (D, E) TOP2A overexpression and knockdown groups were examined for gene and protein levels of TOP2A, Wnt3a, and beta-catenin. (F) Immunohistochemical assessment of Wnt3a and beta-catenin expression in the TOP2A-positive and TOP2A-negative groups (200×). (G) Patients with high Wnt3a overexpression had an abysmal survival rate. *P<0.05, **P<0.01, or ***P<0.001. All experiments were repeated three times independently. Index in PubMed under a CC BY license. PMID: 38806610



TOP2A promotes non-small cell lung cancer progression via Wnt/beta-catenin signaling pathway. (A) After Wnt3a gene knockdown, the mobility and invading capabilities of TOP2A-overexpressing cells were evaluated using the transwell assay. (B,C) Expression of components of Wnt/beta-catenin signaling pathway and EMT-related proteins was examined using western blotting. (D) Flow cytometry was utilized to examine the cell cycle. (E) Analysis of apoptosis via flow cytometry. *P<0.05, **P<0.01, ***P<0.001 or ****P<0.0001; ns: not significant. Index in PubMed under a CC BY license. PMID: 38806610

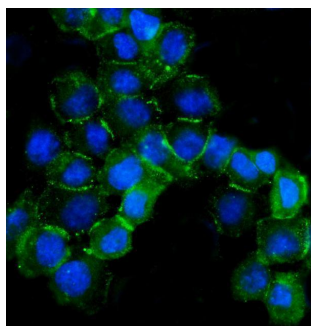


SM impedes traits of CSCs partially through suppressing beta-catenin in CRC. A Western blotting, B ALDH + staining and C tumorsphere formation assay were performed after CRC cells transduced with lentiviral beta-catenin (encoded by the CTNNB1 gene) cDNA-expressing construct in the presence or absence of SM. Scale bar: 100 um. D Western blotting, E ALDH + staining and F tumorsphere formation assays were conducted after CRC cells stably transduced with lentiviral shRNA against beta-catenin with or without SM treatment. Scale bar: 100 um. The values are represented as mean ± SD. * p



SM inhibits hepatic metastasis of CRC cells partially by attenuating beta-catenin. A Transwell migration and B matrigel invasion assays were conducted followed by CRC cells transduced with lentiviral beta-catenin-encoding construct with or without SM treatment. Scale bar: 100 um. C Transwell migration and D matrigel invasion assays were conducted followed by CRC cells transduced with lentiviral shRNA against beta-catenin in the presence or absence of SM. Scale bar: 100 um. E The overexpression efficiency of beta-catenin in MC38-Luc cells was examined by Western blotting analysis. F Representative images and G quantitative analysis of photon flux on day 21 of C57BL/6 mice followed by intrasplenic injection of MC38-Luc cells stably express beta-catenin. n = 5 per group. H Representative images and quantitative analysis of liver metastasis in C57BL/6 mice (n = 5) measured by bioluminescence imaging. I Representative images of metastatic livers and (J) the number of surface foci in the livers in C57BL/6 mice (n = 5) are shown. Arrows indicate the presence of metastatic nodules. K Representative photographs of H&E staining of the liver section and L the number of liver metastatic foci in microscopic fields are presented (n = 3). Scale bar: 200 um. The values are represented as mean ± SD. * p

IF analysis of Beta Catenin using anti-Beta Catenin antibody (PA1212). Beta Catenin 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 5ug/mL rabbit anti-Beta Catenin Antibody (PA1212) 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.

23 Publications Citing This Product

1. PubMed ID: 10.3892/ijo.2018.4564, Histone deacetylase HDAC4 promotes the proliferation and invasion of glioma cells
2. PubMed ID: 10.7150/jca.49138, LINC00184 involved in the regulatory network of ANGPT2 via ceRNA mediated miR-145 inhibition in gastric cancer
3. PubMed ID: 10.1002/elps.201700143, Novel chemiluminescent Western blot blocking and antibody incubation solution for enhanced antibody-antigen interaction and increased specificity

Visit [bosterbio.com/anti-beta-catenin-antibody-pa1212-boster.html](https://www.bosterbio.com/anti-beta-catenin-antibody-pa1212-boster.html) to see all 23 publications.

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