

Anti-beta Catenin CTNNB1 Antibody Picoband™ (monoclonal, 1F6)

Catalog Number: M00004-2

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™ (monoclonal, 1F6)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-beta Catenin CTNNB1 Antibody Picoband™ (monoclonal, 1F6) catalog # M00004-2. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Monoclonal 1F6
Formulation	Each vial contains 4mg Trehalose, 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	Mouse
Uniprot ID	P35222

Technical Details

Immunogen	E. coli-derived human beta Catenin recombinant protein (Position: A2-K233).
Predicted Reactive Species	Hepatitis Virus
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG1
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</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml</p> <p>Immunocytochemistry/Immunofluorescence, 2ug/ml</p> <p>Flow Cytometry, 1-3ug/1x10⁶ cells</p>

Anti-beta Catenin CTNNB1 Antibody Picoband™ (monoclonal, 1F6) (M00004-2) Images

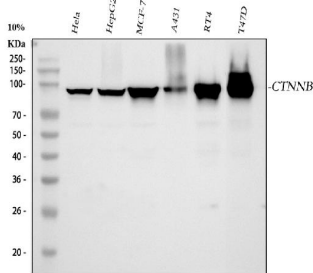


Figure 1. Western blot analysis of beta Catenin using anti-beta Catenin antibody (M04085-1).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human Hela whole cell lysates,
Lane 2: human HepG2 whole cell lysates,
Lane 3: human MCF-7 whole cell lysates,
Lane 4: human A431 whole cell lysates,
Lane 5: human RT4 whole cell lysates,
Lane 6: human T-47D 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 mouse anti-beta Catenin antigen affinity purified monoclonal antibody (Catalog # M04085-1) 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-mouse 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 # EK1001) with Tanon 5200 system. A specific band was detected for beta Catenin at approximately 95 kDa. The expected band size for beta Catenin is at 85 kDa.

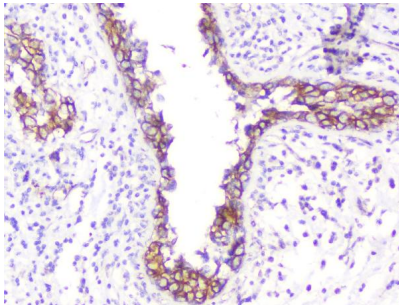


Figure 2. IHC analysis of beta Catenin using anti-beta Catenin antibody (M00004-2).
beta Catenin was detected in paraffin-embedded section of human mammary cancer. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-beta Catenin Antibody (M00004-2) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.

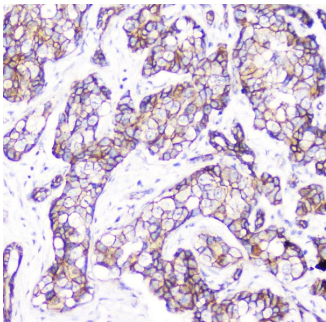


Figure 3. IHC analysis of beta Catenin using anti-beta Catenin antibody (M00004-2).
beta Catenin was detected in paraffin-embedded section of human mammary cancer. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-beta Catenin Antibody (M00004-2) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the

chromogen.

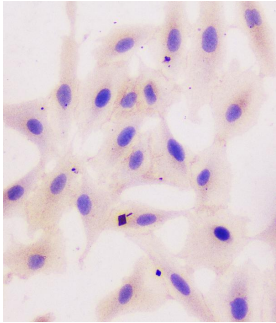


Figure 4. IHC analysis of beta Catenin using anti-beta Catenin antibody (M00004-2).

beta Catenin was detected in immunocytochemical section of A549 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 1ug/ml mouse anti-beta Catenin Antibody (M00004-2) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.

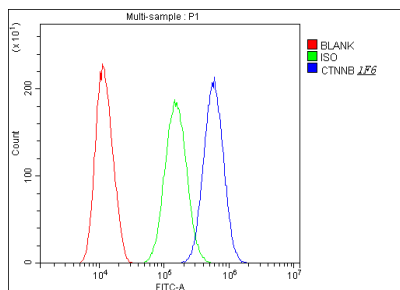


Figure 5. Flow Cytometry analysis of SiHa cells using anti-beta Catenin antibody (M00004-2).

Overlay histogram showing SiHa cells stained with M00004-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-beta Catenin Antibody (M00004-2, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

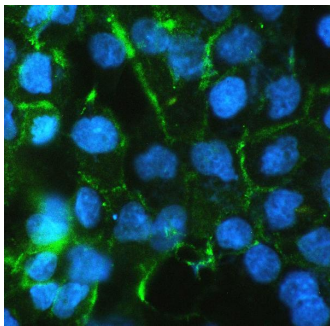


Figure 6. IF analysis of beta Catenin using anti-beta Catenin antibody (M00004-2).

beta Catenin 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 mouse anti-beta Catenin Antibody (M00004-2) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) 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.

18 Publications Citing This Product

1. PubMed ID: 31171012, Xu C, Liu F, Xiang G, Cao L, Wang S, Liu J, Meng Q, Xu D, Lv S, Jiao J, Niu Y. beta-Catenin nuclear localization positively feeds back on EGF/EGFR-attenuated AJAP1 expression in breast cancer. *J Exp Clin Cancer Res.* 2019 Jun 6;38(1):238. doi:10.1186/s13046-019-1252-6. PMID:31171012; PMCID:PMC6554977.
2. 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 SNAIL1. *Clin Transl Oncol.* 2020 Jun 9. doi:10.1007/s12094-020-02412-9. Epub ahead of print. PMID:32519176.
3. PubMed ID: 25995040, Prolonged overexpression of Wnt10b induces epidermal keratinocyte transformation through activating EGF pathway

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