

Anti-N Cadherin/CDH2 Antibody Picoband®

Catalog Number: A01577-3

About CDH2

N-cadherin (NCAD) is a member of the cadherin cell-cell adhesion receptor family that includes P-, E-, and R-cadherin and liver cell adhesion molecule (L-CAM). N-Cadherin, also known as Cadherin-2, encodes a 907-amino acid protein that includes a 159-amino acid signal sequence. Human and mouse nucleotide sequences are 96% identical. Mouse Ncad gene consists of 16 exons dispersed over more than 200 kb of genomic DNA. Human N-cadherin gene contains 16 exons and its sequence is highly similar to both the mouse NCAD gene (including the large first and second introns) and other cadherin genes. N-cadherin is mapped to 18q11.2. Cadherin regulates dendritic spine morphogenesis.

Overview

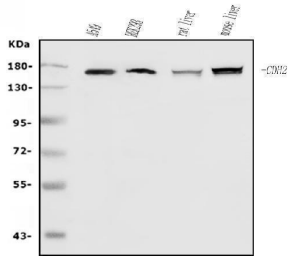
Product Name	Anti-N Cadherin/CDH2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-N Cadherin/CDH2 Antibody Picoband® catalog # A01577-3. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates 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 and 0.2mg Na ₂ HPO ₄ .
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	P19022

Technical Details

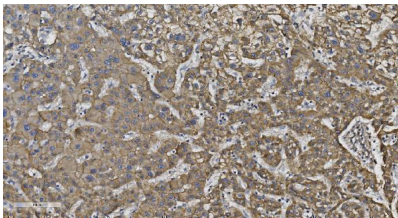
Immunogen	E.coli-derived human N Cadherin/CDH2 recombinant protein (Position: E170-E266).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross 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, 0.25-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5ug/ml, -

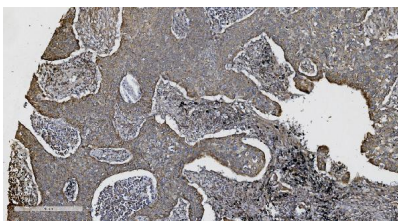
Anti-N Cadherin/CDH2 Antibody Picoband® (A01577-3) Images



Western blot analysis of N Cadherin/CDH2 using anti-N Cadherin/CDH2 antibody (A01577-3). 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: human A549 whole cell lysates, Lane 2: human HEK293 whole cell lysates, Lane 3: rat liver tissue lysates, Lane 4: mouse liver tissue lysates. 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-N Cadherin/CDH2 antigen affinity purified polyclonal antibody (Catalog # A01577-3) 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 N Cadherin/CDH2 at approximately 150KD. The expected band size for N Cadherin/CDH2 is at 150KD.

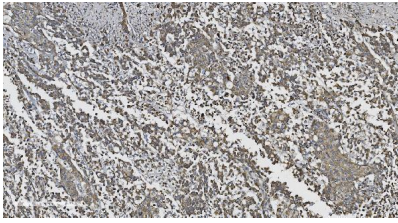


IHC analysis of N Cadherin/CDH2 using anti-N Cadherin/CDH2 antibody (A01577-3). N Cadherin/CDH2 was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-N Cadherin/CDH2 Antibody (A01577-3) 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.

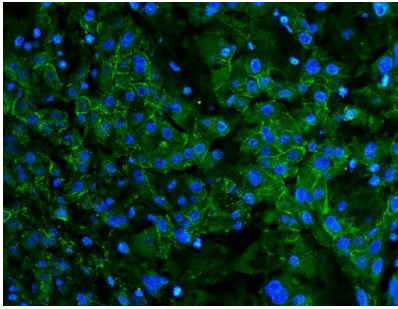


IHC analysis of N Cadherin/CDH2 using anti-N Cadherin/CDH2 antibody (A01577-3). N Cadherin/CDH2 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-N Cadherin/CDH2 Antibody (A01577-3) 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.

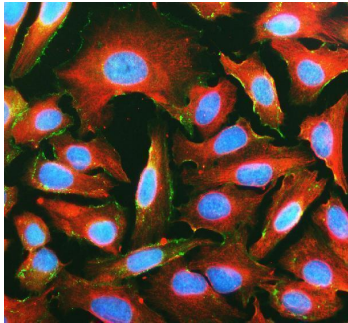
IHC analysis of N Cadherin/CDH2 using anti-N Cadherin/CDH2 antibody (A01577-3). N Cadherin/CDH2 was detected in paraffin-embedded section of human pancreatic



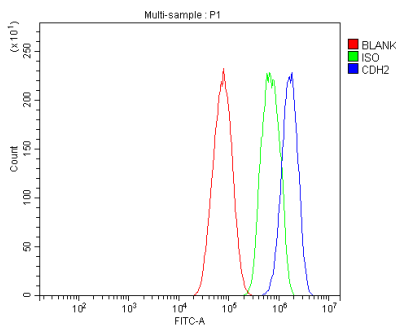
cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-N Cadherin/CDH2 Antibody (A01577-3) overnight at 4°C. Biotinylated goat anti-rabbit 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.



IF analysis of N Cadherin/CDH2 using anti-N Cadherin/CDH2 antibody (A01577-3). N Cadherin/CDH2 was detected in a paraffin-embedded section of human liver 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-N Cadherin/CDH2 Antibody (A01577-3) 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 DyLight®488 Conjugated Avidin (BA1128). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

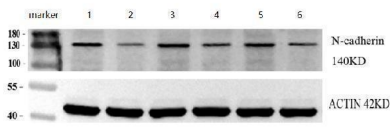


IF analysis of N Cadherin/CDH2 using anti-N Cadherin/CDH2 antibody (A01577-3) and anti-Tubulin Alpha antibody (M03989-3). N Cadherin/CDH2 was detected in immunocytochemical section of Hela cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-N Cadherin/CDH2 Antibody (A01577-3) and mouse anti-Tubulin Alpha antibody (M03989-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and Cy3 Conjugated Goat Anti-Mouse IgG (BA1031) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

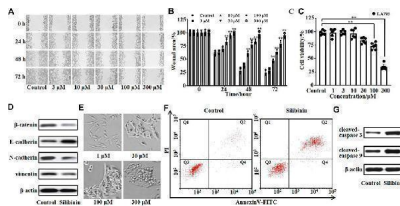


Flow Cytometry analysis of HEPG2 cells using anti-N Cadherin/CDH2 antibody (A01577-3). Overlay histogram showing HEPG2 cells stained with A01577-3 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-N Cadherin/CDH2 Antibody (A01577-3, 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Western blot analysis of N Cadherin/CDH2 using anti-N Cadherin/CDH2 antibody (A01577-3). 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: human cervical cancer tissue lysates, Lane 2: human cervical cancer adjacent tissue lysates, Lane 3: human cervical cancer tissue lysates, Lane 4: human cervical cancer adjacent tissue lysates. Lane 5: human cervical cancer tissue lysates, Lane 6: human cervical cancer adjacent tissue lysates. 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-N Cadherin/CDH2 antigen affinity purified polyclonal antibody (Catalog # A01577-3) at 1:1000 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 ChemiDoc MP system. A specific band was detected for N Cadherin/CDH2 at approximately 140KD. The expected band size for N Cadherin/CDH2 is at 150KD.



Silibinin inhibited the growth and promoted the apoptosis of LA795 cells. (A) . Migration of LA795 cells in the presence of 0, 3, 10, 30, 100, and 300 uM silibinin assessed by wound healing assay (n = 4). (B) . Statistical results of the percentage of wound area in (A) (n = 4) (C) . Statistical results of LA795 cells viability incubated with different concentrations of silibinin (n = 6). (D) . Expression of beta-catenin, E-cadherin, N-cadherin, and vimentin of LA795 cells after treated with 200 uM silibinin for 24 h (n = 3). (E) . Representative real-time images of LA795 cells incubated with different concentrations of silibinin (n = 6). (F) . Representative images of apoptotic cells after 200 uM silibinin treatment for 24 h detected by annexin V apoptosis assay (n = 3). (G) . Expression of cleaved-caspase 3 and cleaved-caspase 9 of LA795 cells after 200 uM silibinin treatment for 24 h (n = 3). Index in PubMed under a CC BY license. PMID: 33935737

10 Publications Citing This Product

1. PubMed ID: PMID:26617787, RAC1 overexpression promotes the proliferation, migration and epithelial-mesenchymal transition of lens epithelial cells
2. PubMed ID: PMID:26722422, Wnt/beta-catenin pathway is required for epithelial to mesenchymal transition in CXCL12 over expressed breast cancer cells
3. PubMed ID: 10.3389/fphar.2021.643489, Inhibition of TMEM16A by Natural Product Silibinin: Potential Lead Compounds for Treatment of Lung Adenocarcinoma

Visit bosterbio.com/anti-n-cadherin-cdh2-picoband-trade-antibody-a01577-3-boster.html to see all 10 publications.

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Anti-N Cadherin/CDH2 Antibody

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