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Anti-E Cadherin 1/CDH1 Antibody Picoband®

Catalog Number: PB9561

About CDH1

CDH1 (Cadherin 1), also known as ECAD or UVO, is a protein that in humans is encoded by the CDH1 gene. Cadherin-1 is a classical member of the cadherin superfamily. By Southern analysis of DNA from a panel of mouse-human somatic cell hybrids, Mansouri et al. (1987, 1988) assigned the UVO gene to 16q (16p11-qter). Frebourg et al. (2006) found that in human embryos CDH1 is highly expressed at 4 and 5 weeks in the frontonasal prominence and at 6 weeks in the lateral and medial nasal prominences, and is therefore expressed during critical stages of lip and palate development. CDH1 is involved in mechanisms regulating cell-cell adhesions, mobility and proliferation of epithelial cells. Has a potent invasive suppressor role. It is a ligand for integrin alpha-E/beta-7.

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Overview

Product Name	Anti-E Cadherin 1/CDH1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-E Cadherin 1/CDH1 Antibody Picoband® catalog # PB9561. Tested in ELISA, ICC/IF, IHC, 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, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	P12830

Technical Details

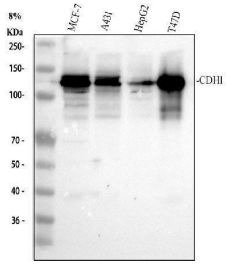
Immunogen	E.coli-derived human E Cadherin recombinant protein (Position: A286-A703). Human E Cadherin shares 79.7% and 80.9% amino acid (aa) sequence identity with mouse and rat E Cadherin,

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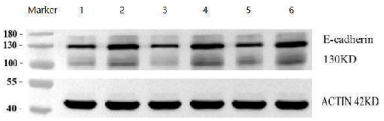
	respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P), IHC-(F) and ICC.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	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 Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human ELISA, 0.1-0.5ug/ml, -

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Anti-E Cadherin 1/CDH1 Antibody Picoband® (PB9561) Images



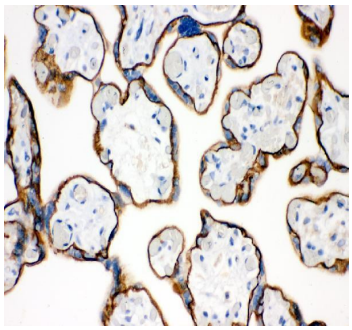
Western blot analysis of CDH1 using anti-CDH1 antibody (PB9561). Electrophoresis was performed on a 8% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human MCF-7 whole cell lysates, Lane 2: human A431 whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: human T47D 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-CDH1 antigen affinity purified polyclonal antibody (PB9561) 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 (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for CDH1 at approximately 130 kDa. The expected band size for CDH1 is at 98 kDa.



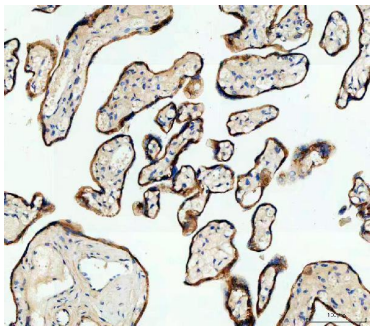
Western blot analysis of CDH1 using anti-CDH1 antibody (PB9561). Electrophoresis was performed on a 8% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human cervical cancer tissue lysates, 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 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-CDH1 antigen affinity purified polyclonal antibody (PB9561) 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 (Catalog # BA1054) at a dilution of 1:10000 for 1 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with ChemiDoc MP system. A specific band was detected for CDH1 at approximately 130 kDa. The expected band size for CDH1 is at 98 kDa.

IHC analysis of CDH1 using anti-CDH1 antibody (PB9561). CDH1 was detected in a paraffin-embedded section of human placenta 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-CDH1 Antibody (PB9561) overnight at 4°C.

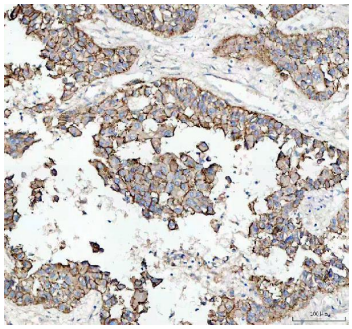
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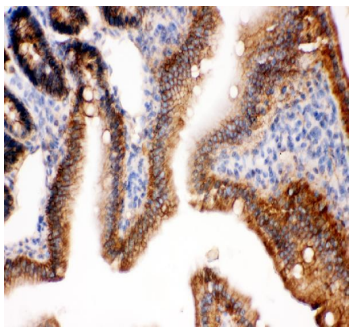
Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of CDH1 using anti-CDH1 antibody (PB9561). CDH1 was detected in a paraffin-embedded section of human placenta 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-CDH1 Antibody (PB9561) 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.



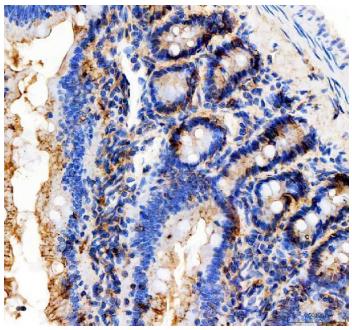
IHC analysis of CDH1 using anti-CDH1 antibody (PB9561). CDH1 was detected in a paraffin-embedded section of human hepatocellular carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CDH1 Antibody (PB9561) 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.



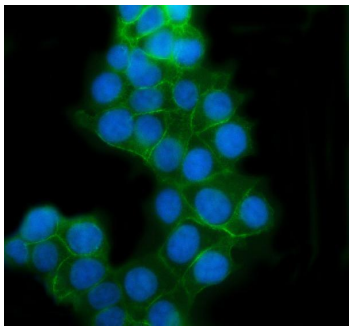
IHC analysis of CDH1 using anti-CDH1 antibody (PB9561). CDH1 was detected in a paraffin-embedded section of mouse colon tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CDH1 Antibody (PB9561) 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 CDH1 using anti-CDH1 antibody (PB9561). CDH1 was detected in a paraffin-embedded section of rat colon 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

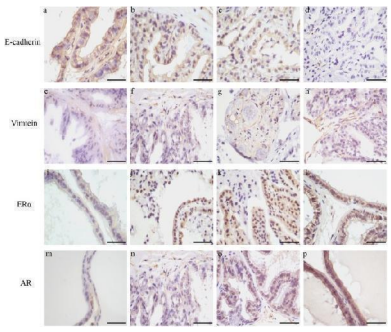
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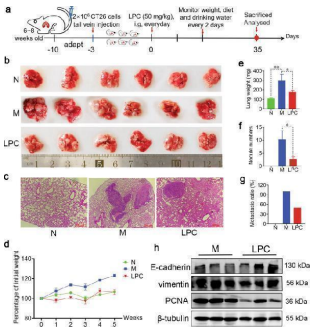
section was then incubated with 2 ug/ml rabbit anti-CDH1 Antibody (PB9561) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



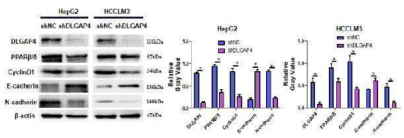
IF analysis of CDH1 using anti-CDH1 antibody (PB9561). CDH1 was detected in an immunocytochemical section of MCF-7 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-CDH1 Antibody (PB9561) overnight at 4°C. Fluoro488488 Conjugated Goat Anti-Rabbit IgG (BA1127) 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.



Immunohistochemical analysis of dorsolateral prostate E-cadherin, Vimtein, ERalpha and AR expression in aged rats. The expression of vimentin, ERalpha and AR increased, and the expression of E-cadherin decreased in BPA-treated groups. (a – p) Representative sections of comparable regions are shown for vehicle control rats (a , e , i , m), and animals exposed to BPA (10 ug/kg/day) (b , f , j , n), BPA (30 ug /kg/day) (c , g , k , o), and BPA (90 ug/kg/day) (d , h , l , p) (scale bar: 50 um, ×400). BPA: bisphenol A; AR: androgen receptor; ERalpha:estrogen receptor-alpha. Index in PubMed under a CC BY license. PMID: 29323181

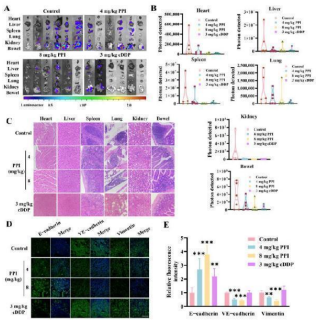


LPC inhibits pulmonary metastasis of CT26 colon cancer. a Schematic view of the experimental procedures of CT26 pulmonary metastatic mouse model. b , c Image and corresponding H&E staining of lung tissue. d Percentage change of body weight. e – g Lung weight, the number of lung tumor nodule, and metastasis rate (n = 6 mice). h Protein expression of PCNA, vimentin and E-cadherin in lungs (n = 3 mice). Data were presented as mean ± SEM, * p < 0.05, ** p < 0.01. Index in PubMed under a CC BY license. PMID: 36774343

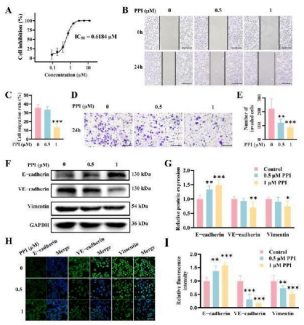


Interfering with DLGAP4 inhibits the PPARbeta/delta signalling pathway and the expression of proliferation- and metastasis-related proteins. Western blotting was performed to measure the protein expression of DLGAP4, PPARbeta/delta, CyclinD1, E-cadherin and N-cadherin in shNC or shDLGAP4 HepG2 and HCCLM3 cells. The data were obtained from the average of three independent experiments. *P < 0.05. Index in PubMed under a CC BY license. PMID: 36396671

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PPI inhibits the metastasis of cervical cancer cells in vivo. (A , B) Bioluminescence imaging of various organs exhibiting metastatic or disseminated cancer cells (A) and a quantitative analysis of total bioluminescence in each group of organs (B). (C) H&E staining of various organs in each group. The scale is 100 um. (D , E) The immunofluorescence staining of E-cadherin, VE-cadherin, and Vimentin was performed, followed by data quantification analysis, comparing the control group with the treated group. Six animal samples were used per group (n = 6), and the results are presented as mean ± S.D. **: p < 0.01; ***: p < 0.001 vs. control. The scale is 100 um.Index in PubMed under a CC BY license. PMID: 40429774



PPI inhibits the growth, migration, and invasion of HO-8910PM cells by reversing the EMT progress. (A) Cell proliferation was evaluated at 48 h using the MTT assay, and the IC 50 values were determined from dose–response curves generated with GraphPad Prism 8. (B) The wound-healing assay was conducted in HO-8910PM cells to evaluate cell migration. Images were captured at 0 and 24 h. The scale is 500 um. (C) The data quantification results of (B). (D) A transwell migration assay was performed to monitor the rate of cellular migration. The scale is 500 um. (E) The quantification results of (D). (F) The protein expression levels of E-cadherin, VE-cadherin, and Vimentin in HO-8910PM cells. (G) The quantification results of (F). (H) An immunofluorescence assay was performed to detect E-cadherin, VE-cadherin, and Vimentin expression in HO-8910PM cells treated with PPI. The scale is 100 um. (I) The quantification results of (H). Data from six independent experiments are presented as mean ± S.D. *: p < 0.05; **: p < 0.01; ***: p < 0.001 vs. control.Index in PubMed under a CC BY license. PMID: 40429774

62 Publications Citing This Product

1. PubMed ID: 10.2147/OTT.S93738, Overexpression of Livin promotes migration and invasion of colorectal cancer cells by induction of epithelial–mesenchymal transition via NF-kappaB activation

2. PubMed ID: 10.3748/wjg.v18.i47.7070, Connective tissue growth factor is overexpressed in human hepatocellular carcinoma and promotes cell invasion and growth

3. PubMed ID: 10.3760/cma.j.issn.0366-6999.2011.23.036, Effect of anaphylatoxin C3a, C5a on the tubular epithelial-myofibroblast transdifferentiationin vitro

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