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Anti-E Cadherin 1 CDH1 Antibody Picoband® (monoclonal, 9G2)

Catalog Number: M00063-2

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® (monoclonal, 9G2)
Reactive Species	Human
Description	Boster Bio Anti-E Cadherin 1 CDH1 Antibody Picoband® (monoclonal, 9G2) catalog # M00063-2. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human. 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	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Monoclonal 9G2
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	P12830

Technical Details

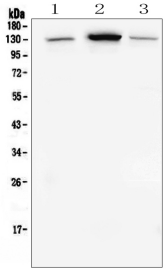
Immunogen	E.coli-derived human E Cadherin recombinant protein (Position: A286-A703). Human E Cadherin shares 79.7% and 80.9% amino acid (aa) sequence identity with mouse and rat E Cadherin,

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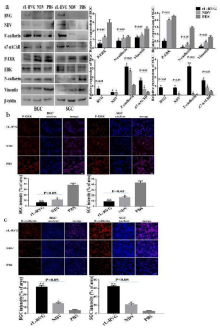
	respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG1
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Immunocytochemistry/Immunofluorescence, 2ug/ml Flow Cytometry (Fixed), 1-3ug/1x10^6 cells Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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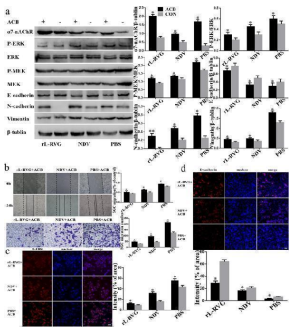
Anti-E Cadherin 1 CDH1 Antibody Picoband® (monoclonal, 9G2) (M00063-2) Images



Western blot analysis of E Cadherin using anti-E Cadherin antibody (M00063-2). 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 placenta tissue lysates, Lane 2: human A549 whole cell lysates, Lane 3: human HEK293 whole cell 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 mouse anti-E Cadherin antigen affinity purified polyclonal antibody (Catalog # M00063-2) 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 E Cadherin at approximately 130KD. The expected band size for E Cadherin is at 97KD.



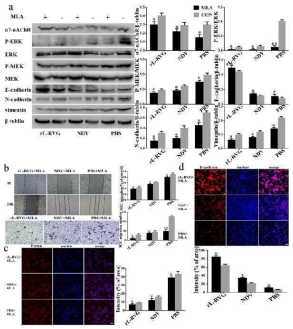
Expression of RVG, NDV, alpha7-nAChR, MEK/ERK signaling pathway and epithelial/mesenchymal markers proteins in infected BGC and SGC cells. a Western blot analysis of RVG, NDV, alpha7-nAChR, MEK/ERK signaling pathway and epithelial/mesenchymal proteins. b Immunofluorescence analysis of P-ERK. c Immunofluorescence analysis of EMT protein markers E-cadherin. BGC and SGC cells were infected with either rL-RVG, NDV and PBS for 24 h. *P < 0.5, **P < 0.01.(rL-RVG vs NDV,rL-RVG vs NDV and PBS groups, respectively, Bar = 25 um) Index in PubMed under a CC BY license. PMID: 31640627



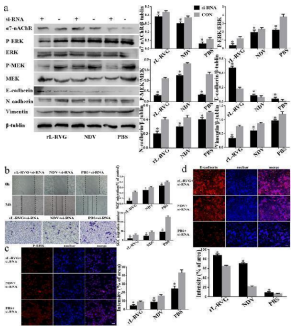
Effects of rL-RVG and ACB pretreated SGC cells on the alpha7-nAChR, MEK/ERK signaling pathway, epithelial/mesenchymal proteins and cell migration. a Western blot analysis of alpha7-nAChR, MEK/ERK signaling pathway and epithelial/mesenchymal protein marker. b Cell migration was detected by wound healing and transwell assay. c Immunofluorescence analysis of P-ERK. d Immunofluorescence analysis of EMT proteins E-cadherin in infected SGC cells. *P < 0.5 ,**P < 0.01.(rL-RVG + ACB vs rL-RVG, NDV + ACB vs NDV, PBS + ACB vs PBS, respectively, Bar = 25 um) Index in PubMed under a CC BY license. PMID: 31640627

Effects of rL-RVG and MLA pretreated cells on alpha7-nAChR, MEK/ERK signaling pathway and epithelial/mesenchymal proteins and migration of cells. a Western blot analysis of the alpha7-nAChR, MEK/ERK signaling pathway and epithelial/mesenchymal protein markers. b Cell migration

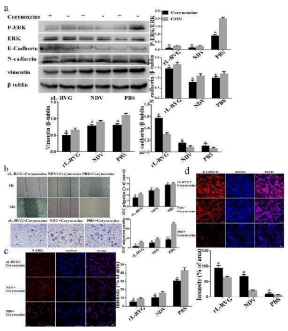
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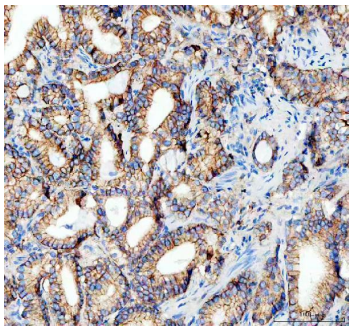
was detected by wound healing and transwell assay. c Immunofluorescence analysis of P-ERK. d Immunofluorescence analysis of EMT markers E-cadherin in infected SGC cells. *P < 0.5 ,**P < 0.01 (rL-RVG + MLA vs rL-RVG, NDV + MLA vs NDV, PBS + MLA vs PBS,Bar = 25 um) Index in PubMed under a CC BY license. PMID: 31640627



Effects of rL-RVG and si-RNA pretreated SGC cells on the alpha7-nAChR, MEK/ERK signaling pathway and epithelial/mesenchymal proteins and cell migration. a Western blot analysis of alpha7-nAChR, MEK/ERK signaling pathway and epithelial/mesenchymal proteins. b Cell migration was detected by wound healing and transwell assay. c Immunofluorescence analysis of P-ERK. d Immunofluorescence analysis of EMT proteins E-cadherin in infected SGC cells. *P < 0.5 ,**P < 0.01 (rL-RVG + si-RNA vs rL-RVG,NDV + si-RNA vs NDV, PBS + si-RNA vs PBS,Bar = 25 um) Index in PubMed under a CC BY license. PMID: 31640627



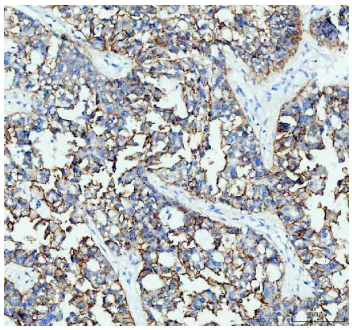
Effects of rL-RVG and corynoxeine pretreated SGC cells on alpha7-nAChR, ERK and epithelial/mesenchymal proteins and cell migration. a Western blot analysis of alpha7-nAChR, P-ERK/ERK and epithelial/mesenchymal markers. b Cell migration of SGC cells was detected by wound healing and transwell assay. c Immunofluorescence analysis of P-ERK in SGC cells. d Immunofluorescence analysis of EMT protein E-cadherin in infected SGC cells. *P < 0.5 ,**P < 0.01 (rL-RVG + corynoxeine vs rL-RVG, NDV + corynoxeine vs NDV, PBS + corynoxeine vs PBS,Bar = 25 um) Index in PubMed under a CC BY license. PMID: 31640627



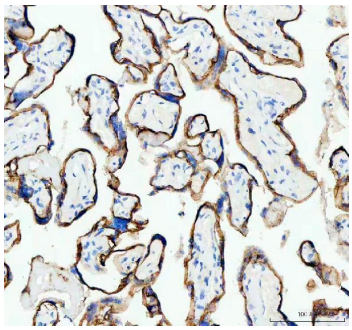
IHC analysis of E Cadherin using anti-E Cadherin antibody (M00063-2). E Cadherin was detected in a paraffin-embedded section of human prostate cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-E Cadherin Antibody (M00063-2) 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 E Cadherin using anti-E Cadherin antibody (M00063-2). E Cadherin 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

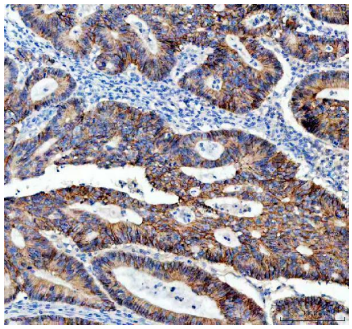
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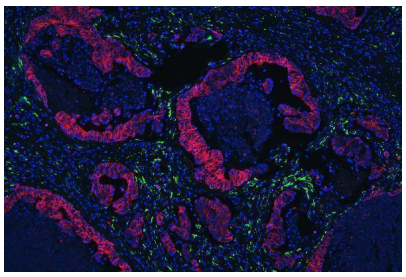
incubated with 1ug/ml rabbit anti-E Cadherin Antibody (M00063-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of E Cadherin using anti-E Cadherin antibody (M00063-2). E Cadherin 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 1ug/ml rabbit anti-E Cadherin Antibody (M00063-2) 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.



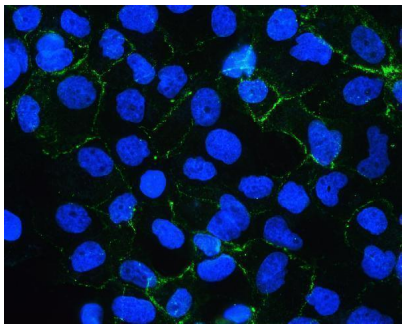
IHC analysis of E Cadherin using anti-E Cadherin antibody (M00063-2). E Cadherin was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-E Cadherin Antibody (M00063-2) 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.



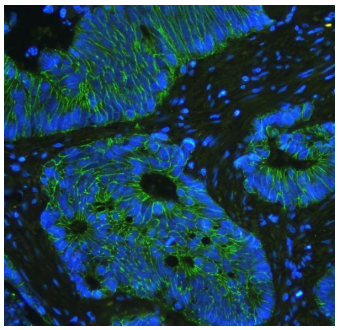
IF analysis of COL4A1/E Cadherin using anti-COL4A1/E Cadherin antibody (PB9099/M00063-2) COL4A1/E Cadherin was detected in paraffin-embedded section of human colon cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-COL4A1 Antibody (PB9099)/mouse anti E Cadherin Antibody(M00063-2) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) /Cy3 conjugated Goat anti mouse IgG(BA1031),were 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.

IF analysis of E Cadherin using anti-E Cadherin antibody

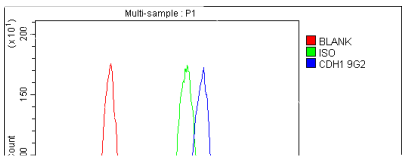
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(M00063-2). E Cadherin was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL mouse anti-E Cadherin Antibody (M00063-2) 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.



IF analysis of E Cadherin using anti-E Cadherin antibody (M00063-2). E-cadherin was detected in paraffin-embedded section of human intestinal 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 1ug/mL mouse anti-E Cadherin Antibody (M00063-2) overnight at 4°C. Biotin conjugated goat anti-mouse IgG (BA1001) 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.



Flow Cytometry analysis of A549 cells using anti- CA2 antibody (M00063-2). Overlay histogram showing A549 cells stained with M00063-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-CA2 Antibody (M00063-2, 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

18 Publications Citing This Product

1. PubMed ID: 10.4149/neo_2016_603, Silencing of ATPase family AAA domain-containing protein 2 inhibits migration and invasion of colorectal cancer cells.

2. PubMed ID: 10.1007/s12253-011-9380-0, Effects of Homeodomain Protein CDX2 Expression on the Proliferation and Migration of Lovo Colon Cancer Cells

3. PubMed ID: 10.1038/labinvest.2013.108, All-transretinoic acid ameliorates bleomycin-induced lung fibrosis by downregulating the TGF- beta 1/Smad3 signaling pathway in rats

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