

## 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.

### 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.                  |
| 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, respectively. |
| 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/1x10<sup>6</sup> cells</p> |

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

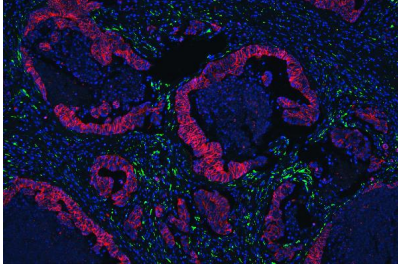


Figure 1. IF analysis of COL4A1/E Cadherin using anti-COL4A1/E Cadherin antibody (PB9099/M00063-2)  
COL4A1/E Cadherin was detected in paraffin-embedded section of human colon cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution ) for 20 mins. 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.

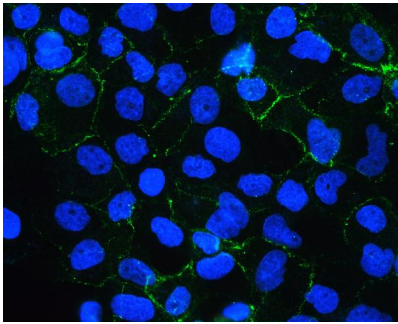


Figure 2. IF analysis of E Cadherin using anti-E Cadherin antibody (M00063-2).  
E Cadherin was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And 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.

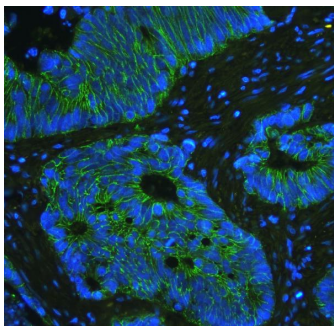
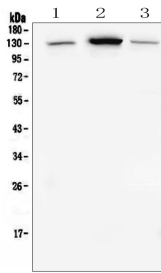


Figure 3. IF analysis of E Cadherin using anti-E Cadherin antibody (M00063-2).  
E-cadherin was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 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.

Figure 4. 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.

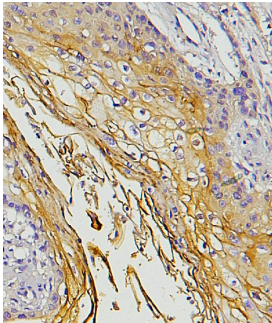


Figure 5. IHC analysis of E Cadherin using anti-E Cadherin antibody (M00063-2).  
E Cadherin was detected in paraffin-embedded section of human oesophagus squama cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml mouse anti-E Cadherin Antibody (M00063-2) overnight at 4°C. 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.

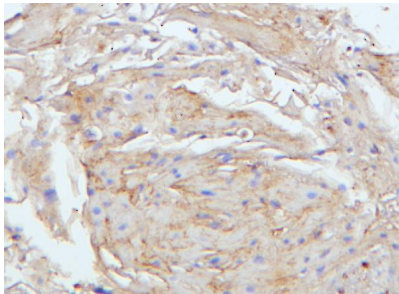


Figure 6. IHC analysis of E Cadherin using anti-E Cadherin antibody (M00063-2).  
E Cadherin was detected in paraffin-embedded section of human oesophagus squama cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml mouse anti-E Cadherin Antibody (M00063-2) overnight at 4°C. 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.

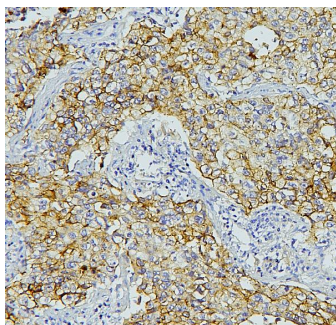


Figure 7. IHC analysis of E Cadherin using anti-E Cadherin antibody (M00063-2).  
E Cadherin was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml mouse anti-E Cadherin Antibody (M00063-2) 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.

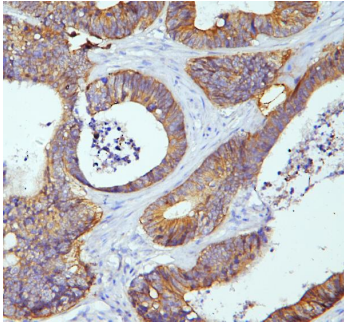


Figure 8. IHC analysis of E Cadherin using anti-E Cadherin antibody (M00063-2). E Cadherin was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml mouse anti-E Cadherin Antibody (M00063-2) overnight at 4°C. 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.

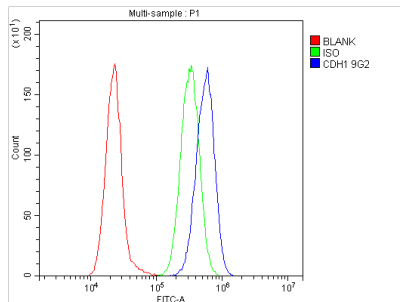


Figure 9. Flow Cytometry analysis of A549 cells using anti-CA2 antibody (M00063-2). Overlay histogram showing A549 cells stained with M00063-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-CA2 Antibody (M00063-2, 1ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample (Red line) was also used as a 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: 10.1038/labinvest.2013.108, All-transretinoic acid ameliorates bleomycin-induced lung fibrosis by downregulating the TGF- beta 1/Smad3 signaling pathway in rats
3. PubMed ID: 10.1007/s12253-011-9380-0, Effects of Homeodomain Protein CDX2 Expression on the Proliferation and Migration of Lovo Colon Cancer Cells

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