

For Research Use Only

# E-cadherin Polyclonal antibody

Catalog Number: 20874-1-AP

Featured Product

2333 Publications



## Basic Information

### Catalog Number:

20874-1-AP

### Size:

150ul, Concentration: 900 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG14973

### GenBank Accession Number:

BC141838

### GeneID (NCBI):

999

### UNIPROT ID:

P12830

### Full Name:

cadherin 1, type 1, E-cadherin (epithelial)

### Calculated MW:

882 aa, 97 kDa

### Observed MW:

120-125 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:20000-1:200000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:5000-1:20000

IF-P: 1:200-1:800

IF-Fro: 1:50-1:500

IF/ICC: 1:200-1:800

## Applications

### Tested Applications:

WB, IHC, IF/ICC, IF-P, IF-Fro, IP, ELISA

### Cited Applications:

WB, IHC, IF, IP, CoIP

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, pig, canine, zebrafish, bovine

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

WB: A431 cells, DU 145 cells, mouse testis tissue, HCT 116 cells, MCF-7 cells, T-47D cells

IP: A431 cells,

IHC: mouse colon tissue, human breast cancer tissue, human colon tissue, human prostate cancer tissue, mouse skin tissue, rat colon tissue, rat stomach tissue

IF-P: mouse colon tissue, human breast cancer tissue, mouse small intestine tissue

IF-Fro: mouse colon tissue, mouse breast cancer

IF/ICC: MCF-7 cells, A431 cells

## Background Information

Cadherins are a family of transmembrane glycoproteins that mediate calcium-dependent cell-cell adhesion and play an important role in the maintenance of normal tissue architecture. E-cadherin (epithelial cadherin), also known as CDH1 (cadherin 1) or CAM 120/80, is a classical member of the cadherin superfamily which also include N-, P-, R-, and B-cadherins. E-cadherin is expressed on the cell surface in most epithelial tissues. The extracellular region of E-cadherin establishes calcium-dependent homophilic trans binding, providing specific interaction with adjacent cells, while the cytoplasmic domain is connected to the actin cytoskeleton through the interaction with p120-,  $\alpha$ -,  $\beta$ -, and  $\gamma$ -catenin (plakoglobin). E-cadherin is important in the maintenance of the epithelial integrity, and is involved in mechanisms regulating proliferation, differentiation, and survival of epithelial cell. E-cadherin may also play a role in tumorigenesis. It is considered to be an invasion suppressor protein and its loss is an indicator of high tumor aggressiveness. E-cadherin is sensitive to trypsin digestion in the absence of Ca<sup>2+</sup>. This polyclonal antibody recognizes 120-125 kDa intact E-cadherin and its cleaved fragments of 80-120 kDa.

## Notable Publications

| Author   | Pubmed ID | Journal         | Application |
|----------|-----------|-----------------|-------------|
| Ji Xing  | 36230734  | Cancers (Basel) | WB          |
| Xia Peng | 36247281  | Am J Transl Res | WB          |
| Yang Liu | 36249783  | Front Pharmacol | IF          |

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

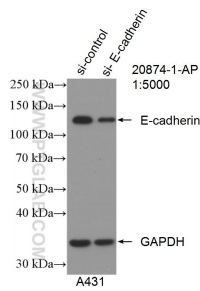
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

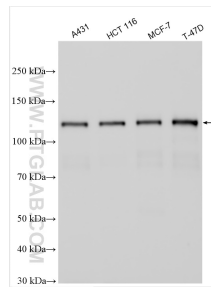
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

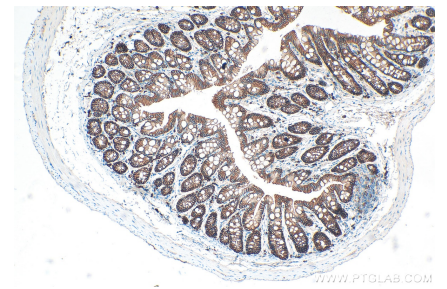
## Selected Validation Data



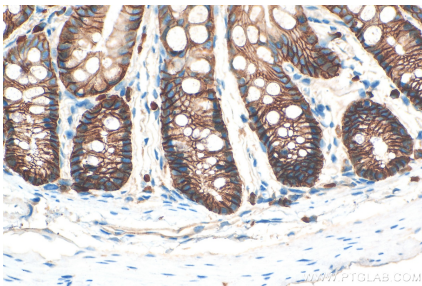
WB result of E-cadherin antibody (20874-1-AP; 1:5000; incubated at room temperature for 1.5 hours) with sh-Control and sh-E-cadherin transfected A431 cells.



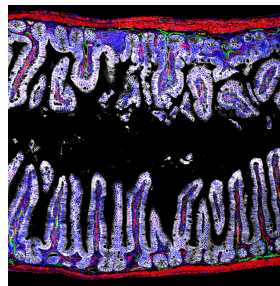
Various lysates were subjected to SDS PAGE followed by western blot with 20874-1-AP (E-cadherin antibody) at dilution of 1:70000 incubated at room temperature for 1.5 hours.



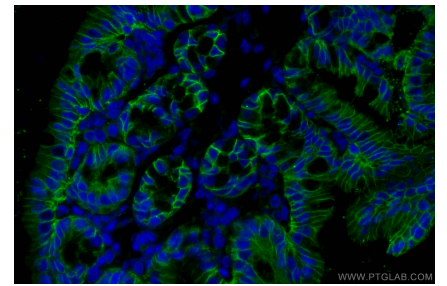
Immunohistochemical analysis of paraffin-embedded mouse colon tissue slide using 20874-1-AP (E-cadherin antibody) at dilution of 1:10000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



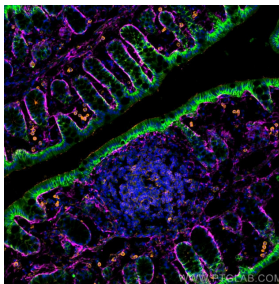
Immunohistochemical analysis of paraffin-embedded mouse colon tissue slide using 20874-1-AP (E-cadherin antibody) at dilution of 1:10000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



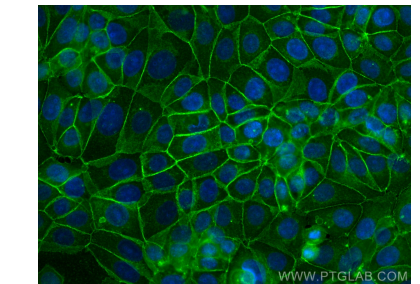
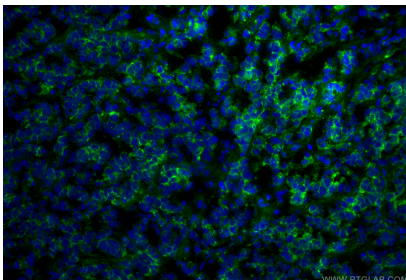
FFPE adult mouse small intestine stained for E-cadherin (white, 20874-1-AP5), LYVE1 (green), and alpha-smooth muscle actin (red). E-cadherin marks intestinal epithelial cells, which regulate nutrient absorption. LYVE1 stains gut lymphatics, which absorb fat. Alpha-smooth muscle actin stains perivascular smooth muscle cells and the surrounding smooth muscle, which help propel food in the gut. Image credit: @Immunofluorescence on Instagram.



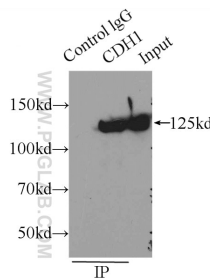
Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse colon tissue using E-cadherin antibody (20874-1-AP) at dilution of 1:400 and Multi-rAb Coralite Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescence of mouse colon: Frozen OCT-embedded mouse colon sections were stained with anti-E-cadherin antibody (20874-1-AP) labeled with Coralite488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2, green) in the first step, anti-CD45 antibody (80297-1-RR) labeled with FlexAble Coralite Plus 555 Kit (KFA002, orange) in the second step, anti-Collagen Type III antibody (22734-1-AP) labeled with FlexAble Coralite647 Kit



Immunofluorescent analysis of (-20°C Methanol) fixed MCF-7 cells using E-cadherin antibody (20874-1-AP) at dilution of 1:400 and Coralite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



IP result of anti-E-cadherin (IP:20874-1-AP, 3ug; Detection:20874-1-AP 1:1000) with A431 cells lysate 3000ug.

Immunofluorescent analysis of (4% PFA) fixed frozen OCT-embedded mouse breast cancer using E-cadherin antibody (20874-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).