For Research Use Only

E-cadherin Polyclonal antibody

Catalog Number:20874-1-AP Featured Product 1755 Publications

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Basic Information

Catalog Number:
20874-1-AP

Size:
150ul , Concentration: 700 μg/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 1:20000-1:100000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:5000-1:20000
IF 1:50-1:500

Applications

Tested Applications:
WB, IP, IF, FC, IHC, ELISA

Cited Applications:
WB, IP, IF, FC, IHC, CoIP, Cell treatment

Species Specificity:
human, mouse, rat

Cited Species:
human, rat, mouse, zebrafish, pig, canine, 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, mouse skin tissue, human prostate cancer tissue

IF : mouse colon tissue, A431 cells, mouse small intestine tissue, MCF-7 cells, mouse embryo tissue, human breast cancer tissue

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-, α-, β-, and γ -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 Ca2+. 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

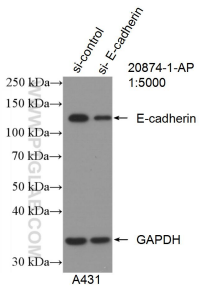
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

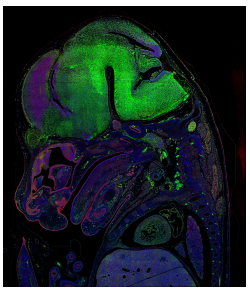
*** 20ul sizes contain 0.1% BSA

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

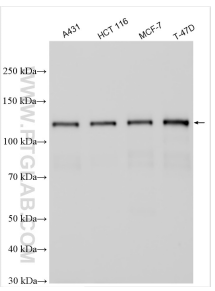
Selected Validation Data



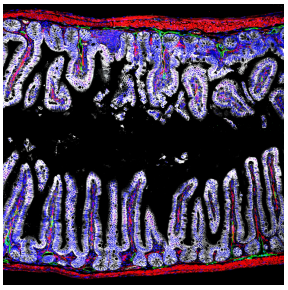
WB result of E-cadherin antibody (20874-1-AP; 1:5000; incubated at room temperature for 1.5 hours) with sh-Control and sh-E-cadherin transfected A431 cells.



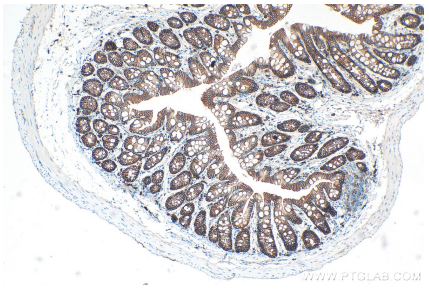
E14.5 FFPE mouse embryo section stained for E-cadherin (red, Cat. No 20874-1-AP) and alpha tubulin (green, Cat. CL488-66031). Image credit: @Immunofluorescence on Instagram



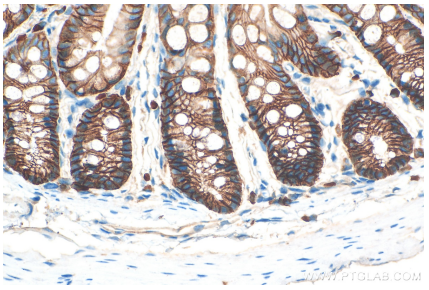
Various lysates were subjected to SDS PAGE followed by western blot with 20874-1-AP (E-cadherin antibody) at dilution of 1:70000 incubated at room temperature for 1.5 hours.



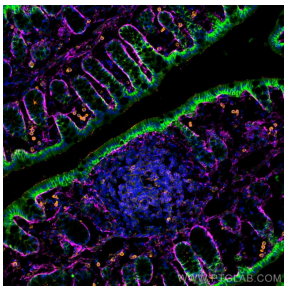
FFPE adult mouse small intestine stained for E-cadherin (white, 20874-1-AP5), LYVE1 (green), and alpha-smooth muscle actin (red). E-cadherin marks intestinal epithelial cells, which regulate nutrient absorption. LYVE1 stains gut lymphatics, which absorb fat. Alpha-smooth muscle actin stains perivascular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



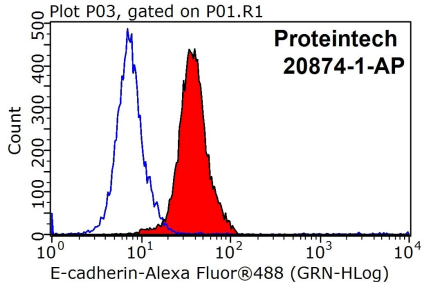
Immunohistochemical analysis of paraffin-embedded mouse colon tissue slide using 20874-1-AP (E-cadherin antibody) at dilution of 1:10000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



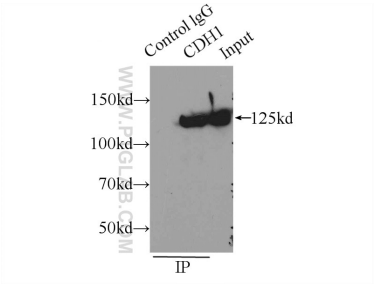
Immunohistochemical analysis of paraffin-embedded mouse colon tissue slide using 20874-1-AP (E-cadherin antibody) at dilution of 1:10000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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 frist 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 (KFA003, magenta) in the



1X10^6 HepG2 cells were stained with 0.2 ug E-cadherin antibody (20874-1-AP, red) and control antibody (blue). Fixed with 90% MeOH blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1000.



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