

Rabbit Anti-E cadherin antibody

SL1016R

Product Name E cadherin

Chinese Name 上皮钙粘附分子抗体

Alias E-cadherin; anion exchanger protein 3; Arc 1; Cadherin 1; cadherin 1 type 1
E-cadherin; Cadherin1; CAM 120/80; CD 234; CD324; CD324 antigen; CDH1;
CDHE; ECAD; Epithelial cadherin; epithelial calcium dependant adhesion protein;
LCAM; Liver cell adhesion molecule; UVO; Uvomorulin; CADH1_HUMAN.

Research Area immunology Developmental biology Signal transduction Stem cells Channel protein
Cell adhesion molecule

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human, Mouse, (predicted: Rat, Chicken, Dog, Pig, Cow, Horse,)
IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1µg /test (Paraffin
sections need antigen repair)

Applications not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 90/97kDa

Cellular localization The cell membrane

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human E-cadherin: 801-882/882
<Cytoplasmic>

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human,

therapeutic or diagnostic applications.

PubMed

[PubMed](#)

This gene encodes a classical cadherin of the cadherin superfamily. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate the mature glycoprotein. This calcium-dependent cell-cell adhesion protein is comprised of five extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. Mutations in this gene are correlated with gastric, breast, colorectal, thyroid and ovarian cancer. Loss of function of this gene is thought to contribute to cancer progression by increasing proliferation, invasion, and/or metastasis. The ectodomain of this protein mediates bacterial adhesion to mammalian cells and the cytoplasmic domain is required for internalization. This gene is present in a gene cluster with other members of the cadherin family on chromosome 16. [provided by RefSeq, Nov 2015]

Function:

Cadherins are calcium-dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. 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. E-Cad/CTF2 promotes non-amyloidogenic degradation of Abeta precursors. Has a strong inhibitory effect on APP C99 and C83 production.

**Product
Detail**

Subunit:

Homodimer.

Subcellular Location:

Cell junction. Cell membrane; Single-pass type I membrane protein.

Tissue Specificity:

Non-neural epithelial tissues.

Post-translational modifications:

During apoptosis or with calcium influx, cleaved by a membrane-bound metalloproteinase (ADAM10), PS1/gamma-secretase and caspase-3 to produce fragments of about 38 kDa (E-CAD/CTF1), 33 kDa (E-CAD/CTF2) and 29 kDa (E-CAD/CTF3), respectively. Processing by the metalloproteinase, induced by calcium influx, causes disruption of cell-cell adhesion and the subsequent release of beta-catenin into the cytoplasm. The residual membrane-tethered cleavage product is rapidly degraded via an intracellular proteolytic pathway. Cleavage by caspase-3 releases the cytoplasmic tail resulting in disintegration of the actin microfilament system. The gamma-secretase-mediated cleavage promotes disassembly of adherens junctions.

DISEASE:

Defects in CDH1 are the cause of hereditary diffuse gastric cancer (HDGC) . An autosomal dominant cancer predisposition syndrome with increased susceptibility to diffuse gastric cancer. Diffuse gastric cancer is a malignant disease characterized by poorly differentiated infiltrating lesions resulting in thickening of the stomach. Malignant tumors start in the stomach, can spread to the esophagus or the small intestine, and can extend through the stomach wall to nearby lymph nodes and organs. It also can metastasize to other parts of the body. Note=Heterozygous germline mutations CDH1 are responsible for familial cases of diffuse gastric cancer. Somatic mutations in the has also been found in patients with sporadic diffuse gastric cancer and lobular breast cancer.

Similarity:

Contains 5 cadherin domains.

SWISS:

P12830

Gene ID:

999

Database links:

[Entrez Gene: 999](#) Human

[Entrez Gene: 12550](#) Mouse

[Entrez Gene: 83502](#) Rat

[Entrez Gene: 282637](#) Cow

[Entrez Gene: 442858](#) Dog

[Omim: 192090](#) Human

[SwissProt: Q6R8F2](#) Cow

[SwissProt: P12830](#) Human

[SwissProt: P09803](#) Mouse

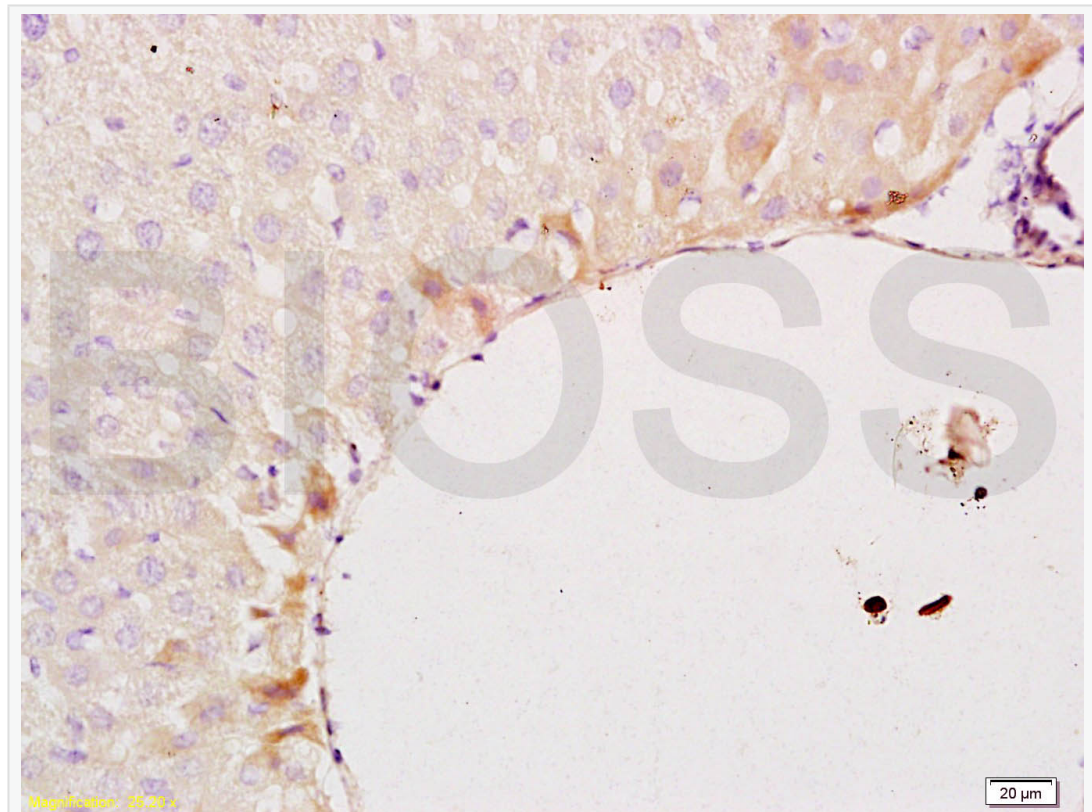
[SwissProt: Q9R0T4](#) Rat

[Unigene: 461086](#) Human

[Unigene: 35605](#) Mouse

[Unigene: 1303](#) Rat

**Product
Picture**

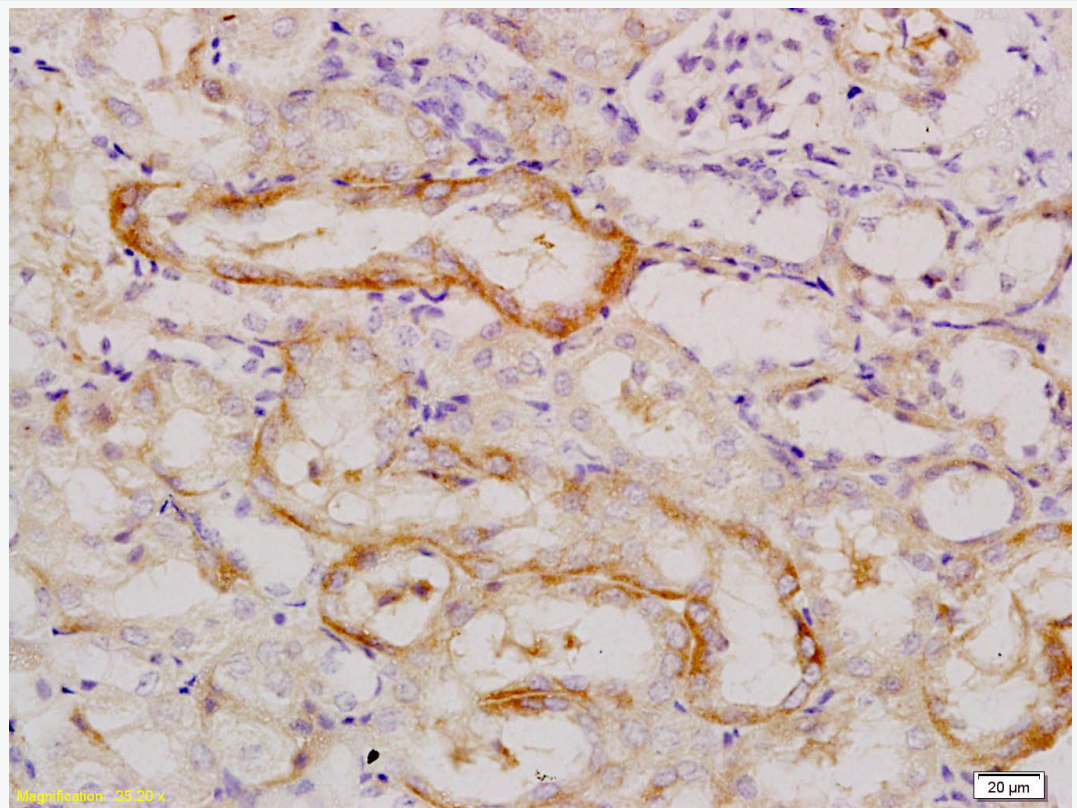


Tissue/cell: mouse liver tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-E-cadherin Polyclonal Antibody, Unconjugated(SL1016R) 1:200, overnight at 4°C, followed by conjugation to the secondary

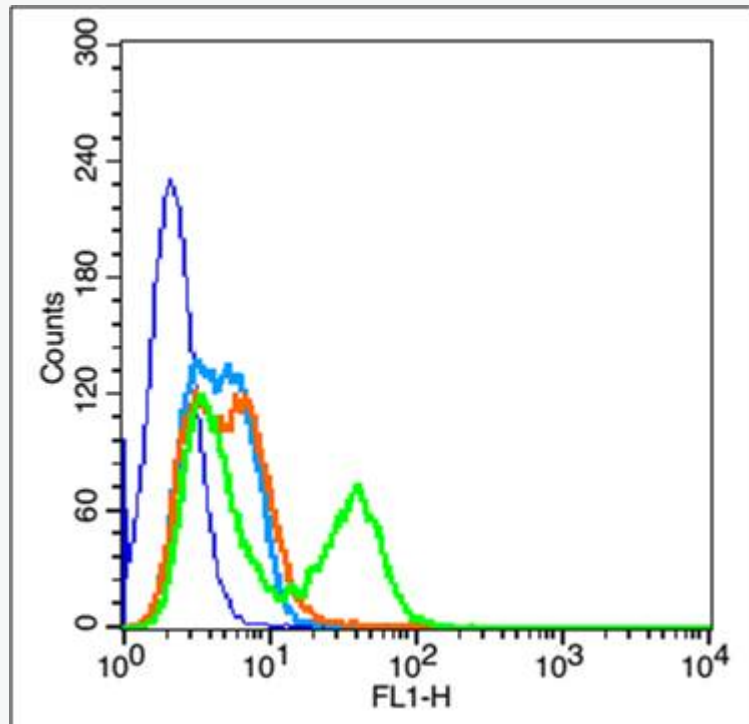
antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: mouse kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

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Incubation: Anti-E-cadherin Polyclonal Antibody, Unconjugated(SL1016R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: Hepg2(blue).

Primary Antibody:Rabbit Anti-E cadherin antibody (SL1016R,Green); Dilution:
1 μ g in 100 μ L 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions;

Secondary Antibody: Goat anti-rabbit IgG-FITC(white blue), Dilution: 1:200 in 1
X PBS containing 0.5% BSA.

Protocol

The cells were fixed with 2% paraformaldehyde for 10 min at 37°C. Primary antibody (SL1016R, 1 μ g /1x10⁶ cells) were incubated for 30 min at room temperature, followed by 1 X PBS containing 0.5% BSA + 1 0% goat serum (1 hour) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit



IgG/FITC antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 40 min at room temperature. Acquisition of 20,000 events was performed.