

## E-cadherin Mouse mAb

CatalogNo: YM0207

Orthogonal Validated 

### Key Features

#### Host Species

- Mouse

#### Reactivity

- Human, Mouse, Monkey

#### Applications

- WB, IHC, IF, FC, ELISA

#### MW

- 125-130kD (Observed)

### Recommended Dilution Ratios

**WB 1:500-1:2000****IHC 1:200-1:1000****Flow Cyt 1:200-1:400****ELISA 1:10000****IF 1:50-200**

### Storage

**Storage\*** -15°C to -25°C/1 year(Do not lower than -25°C)**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

### Basic Information

**Clonality** Monoclonal

### Immunogen Information

**Immunogen** Purified recombinant fragment of human E-cadherin expressed in E. Coli.**Specificity** E-cadherin Monoclonal Antibody detects endogenous levels of E-cadherin protein.

## | Target Information

**Gene name** CDH1

**Protein Name** Cadherin-1

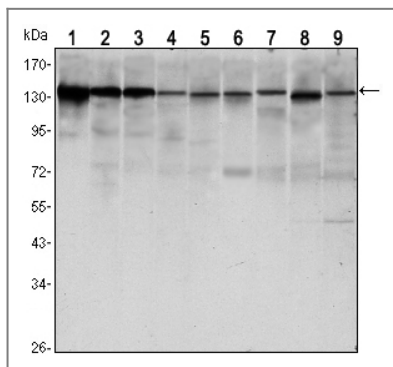
Organism	Gene ID	UniProt ID
Human	<a href="#">999</a> ;	<a href="#">P12830</a> ;
Mouse	<a href="#">12550</a> ;	<a href="#">P09803</a> ;

**Cellular Localization** Cell junction, adherens junction . Cell membrane ; Single-pass type I membrane protein. Endosome. Golgi apparatus, trans-Golgi network. Colocalizes with DLGAP5 at sites of cell-cell contact in intestinal epithelial cells. Anchored to actin microfilaments through association with alpha-, beta- and gamma-catenin. Sequential proteolysis induced by apoptosis or calcium influx, results in translocation from sites of cell-cell contact to the cytoplasm. Colocalizes with RAB11A endosomes during its transport from the Golgi apparatus to the plasma membrane.

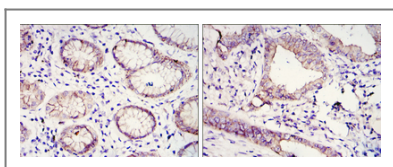
**Tissue specificity** Non-neural epithelial tissues.

**Function** Disease:Defects in CDH1 are a cause of gastric cancer [MIM:137215]; also known as hereditary familial diffuse gastric cancer (HDGC).,Disease:Defects in CDH1 are a cause of susceptibility to endometrial cancer [MIM:608089].,Disease:Defects in CDH1 are associated with ovarian cancer [MIM:167000]. Ovarian cancer is the leading cause of death from gynecologic malignancy. It is characterized by advanced presentation with loco-regional dissemination in the peritoneal cavity and the rare incidence of visceral metastases. These typical features relate to the biology of the disease, which is a principal determinant of outcome.,Disease:Defects in CDH1 are involved in dysfunction of the cell-cell adhesion system, triggering cancer invasion (gastric, breast, ovary, endometrium and thyroid) and metastasis.,Function:Cadherins are calcium dependent cell adhesion proteins.,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.,Function:E-Cad/CTF2 promotes non-amyloidogenic degradation of Abeta precursors. Has a strong inhibitory effect on APP C99 and C83 production.,online information:E-cadherin entry,PTM: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.,similarity:Contains 5 cadherin domains.,subcellular location:Colocalizes with DLGAP5 at sites of cell-cell contact in intestinal epithelial cells. Anchored to actin microfilaments through association with alpha-, beta- and gamma-catenin. Sequential proteolysis induced by apoptosis or calcium influx, results in translocation from sites of cell-cell contact to the cytoplasm.,subunit:Homodimer; disulfide-linked. Interacts directly, via the cytoplasmic domain, with CTNNA1 or JUP to form the PSEN1/cadherin/catenin adhesion complex which connects to the actin skeleton through the actin binding of alpha-catenin. Interaction with PSEN1, cleaves CDH1 resulting in the disassociation of cadherin-based adherens junctions (CAJs). Interacts with AJAP1, CTNND1 and DLGAP5.,tissue specificity:Non-neural epithelial tissues.,

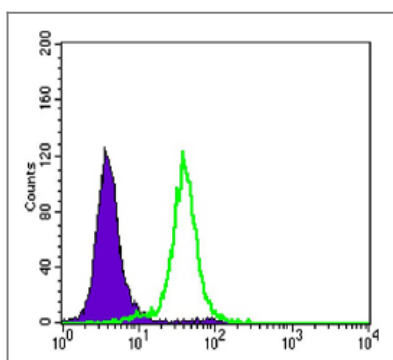
## Validation Data



Western Blot analysis using E-cadherin Monoclonal Antibody against LNCAP (1), A431 (2), DU145 (3), PC-3 (4), MCF-7 (5), PC-12 (6), NIH/3T3 (7), C6 (8) and COS7 (9) cell lysate.



Immunohistochemistry analysis of paraffin-embedded gastric cancer tissues (left) and lung cancer tissues (right) with DAB staining using E-cadherin Monoclonal Antibody.



Flow cytometric analysis of HeLa cells using E-cadherin Monoclonal Antibody (green) and negative control (purple).

## Contact information

Orders: order.cn@immunoway.com  
Support: support.cn@immunoway.com  
Telephone: 400-8787-807(China)  
Website: <http://www.immunoway.com.cn>  
Address: 2200 Ringwood Ave San Jose, CA 95131 USA



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