E-cadherin Monoclonal ANTIBODY

Catalog Number: 60335-1-Ig

Basic Information

Catalog Number: 60335-1-Ig
Size: 150 μg/150 μl
Source: Mouse
Purification Method: Protein A purification
Immunogen Catalog Number: AG15085
GenBank Accession Number: BC141938
GeneID (NCBI): 999
Full Name: cadherin 1, type 1, E-cadherin (epithelial)
Calculated MW: 882aa, 97 kDa
Observed MW: 120 kDa

Recommended Dilutions:
- WB: 1:2000-1:16000
- IHC: 1:1000-1:4000
- IF: 1:50-1:500

Applications

Tested Applications:
- IF, IHC, WB, ELISA
Cited Applications:
- IHC, WB

Species Specificity:
- human, pig

Positive Controls:
- WB: A431 cells; PC-3 cells, pig brain tissue, MCF-7 cells
- IHC: human breast cancer tissue
- IF: 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. It has been regarded as a marker for spermatogonial stem cells in mice (PMID: 23509752). 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.

Notable Publications

<table>
<thead>
<tr>
<th>Author</th>
<th>PMID</th>
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<tr>
<td>Linjun Hong</td>
<td>28912304</td>
<td>Reproduction</td>
<td>WB, IHC</td>
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<tr>
<td>Xiangfeng Wang</td>
<td>2564805</td>
<td>Carcinogenesis</td>
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<td>Tianliang He</td>
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Storage

Store at -20°C. Stable for one year after shipment.
Storage Buffer: PBS with 0.05% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage.
Selected Validation Data

WB result of E-cadherin antibody (60335-1-Ig; 1:5000; incubated at room temperature for 1.5 hours) with sh-Control and sh-E-cadherin transfected A431 cells.

PC-3, MNN-45, SGC-7901 cells were subjected to SDS-PAGE followed by western blot with 60335-1-Ig (E-cadherin Antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.

A431 cells were subjected to SDS-PAGE followed by western blot with 60335-1-Ig (E-cadherin Antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.

Immunofluorescent analysis of (4% PFA) fixed human breast cancer tissue using 60335-1-Ig (E-cadherin Antibody) at dilution of 1:250 and Alexa Fluor 488-conjugated All-in-One Goat Anti-Mouse IgG(H+L).

Immunohistochemistry of paraffin-embedded human breast cancer tissue slide using 60335-1-Ig (E-cadherin antibody) at dilution of 1:2000 (under 10x lens) heat mediated antigen retrieved with Tris-EDTA buffer (pH 9).

Immunohistochemistry of paraffin-embedded human breast cancer tissue slide using 60335-1-Ig (E-cadherin antibody) at dilution of 1:2000 (under 40x lens) heat mediated antigen retrieved with Tris-EDTA buffer (pH 9).