E-Cadherin (24E10) Rabbit mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:
- WB, W-S, IHC-Bond, IHC-P, IF-IC, FC-FP

Reactivity:
- H M

Sensitivity:
- Endogenous

MW (kDa):
- 135

Source/Isotype:
- Rabbit IgG

UniProt ID:
- #P12830

Entrez-Gene Id:
- 999

Product Usage Information

<table>
<thead>
<tr>
<th>Application</th>
<th>Dilution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Blotting</td>
<td>1:1000</td>
</tr>
<tr>
<td>Simple Western™</td>
<td>1:10 - 1:50</td>
</tr>
<tr>
<td>IHC Leica Bond</td>
<td>1:400 - 1:1600</td>
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<tr>
<td>Immunohistochemistry (Paraфин)</td>
<td>1:400</td>
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<tr>
<td>Immunofluorescence (Immunocytochemistry)</td>
<td>1:1600</td>
</tr>
<tr>
<td>Flow Cytometry (Fixed/Permeabilized)</td>
<td>1:100 - 1:400</td>
</tr>
</tbody>
</table>

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

For a carrier-free (BSA and Azide Free) version of this product see product #96743.

Specificity / Sensitivity

E-Cadherin (24E10) Rabbit mAb detects endogenous levels of total E-cadherin protein. The antibody does not cross-react with related family members, such as N-cadherin.

Species predicted to react based on 100% sequence homology:
- Bovine, Dog, Pig

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro780 of human E-cadherin protein.

Background

Cadherins are a superfamily of transmembrane glycoproteins that contain cadherin repeats of approximately 100 residues in their extracellular domain. Cadherins mediate calcium-dependent cell-cell adhesion and play critical roles in normal tissue development (1). The classic cadherin subfamily includes N-, P-, R-, B-, and E-cadherins, as well as about ten other members that are found in adherens junctions, a cellular structure near the apical surface of polarized epithelial cells. The cytoplasmic domain of classical cadherins interacts with β-catenin, γ-catenin (also called plakoglobin), and p120 catenin. β-catenin and γ-catenin associate with α-catenin, which links the cadherin-catenin complex to the actin cytoskeleton (1,2). While β- and γ-catenin play structural roles in the junctional complex, p120 regulates cadherin adhesive activity and trafficking (1-4). Investigators consider E-cadherin an active suppressor of invasion and growth of many epithelial cancers (1-3). Research studies indicate that cancer cells have upregulated N-cadherin in addition to loss of E-cadherin. This change in cadherin expression is called the "cadherin switch." N-cadherin cooperates with the FGF receptor, leading to overexpression of MMP-9 and cellular invasion (3). Research studies have shown that in endothelial cells, VE-cadherin signaling, expression, and localization correlate with vascular permeability and tumor angiogenesis (5,6). Investigators have also demonstrated that expression of P-cadherin, which is normally present in epithelial cells, is also altered in ovarian and other human cancers (7,8).

Background References

**Species Reactivity**
Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**
IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**
- **WB**: Western Blotting
- **W-S**: Simple Western™ IHC-Bond: IHC Leica Bond
- **IHC-P**: Immunohistochemistry (Paraffin)
- **IF-IC**: Immunofluorescence (Immunocytochemistry)
- **FC-FP**: Flow Cytometry (Fixed/Permeabilized)

**Cross-Reactivity Key**
- **H**: human
- **M**: mouse
- **R**: rat
- **Hm**: hamster
- **Mk**: monkey
- **Vir**: virus
- **C**: chicken
- **Dm**: D. melanogaster
- **X**: Xenopus
- **Z**: zebrafish
- **B**: bovine
- **Dg**: dog
- **Pg**: pig
- **Sc**: S. cerevisiae
- **Ce**: C. elegans
- **Hr**: horse
- **GP**: Guinea Pig
- **Rab**: rabbit
- **All**: all species expected

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