E-Cadherin Antibody

Applications:
- WB, IP, IHC-P, IF-IC

Reactivity:
- H M

Sensitivity:
- Endogenous

MW (kDa):
- 135

Source:
- Rabbit

UniProt ID:
- #P12830

Entrez-Gene Id:
- 999

Product Usage Information

Application | Dilution
---|---
Western Blotting | 1:1000
Immunoprecipitation | 1:50
Immunohistochemistry (Paraffin) | 1:200
Immunofluorescence (Immunocytochemistry) | 1:100

Storage

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

Specificity / Sensitivity

E-Cadherin Antibody 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

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence surrounding residue 780 of human E-Cadherin. Antibodies are purified by protein A and peptide affinity chromatography.

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 at least one approved application (e.g., western blot).

https://www.cellsignal.com/datasheet.jsp?productid=4065&images=0&protocol=0
E-Cadherin Antibody (#4065) Datasheet Without Images Cell Signaling Technology

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  IP: Immunoprecipitation  IHC-P: Immunohistochemistry (Paraffin)  IF-IC: Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key


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