

CDH1 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1473a

Specification

CDH1 Antibody - Product Information

Application	WB, IHC, FC
Primary Accession	P12830
Reactivity	Human, Mouse, Monkey
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	135kDa KDa

Description

E-Cadherin is a 120 kDa transmembrane glycoprotein that is localized in the adherens junctions of epithelial cells. There, it interacts with the cytoskeleton through the associated cytoplasmic catenin proteins. In addition to being a calcium-dependent adhesion molecule, E-Cadherin is also a critical regulator of epithelial junction formation. Its association with catenins is necessary for cell-cell adhesion. These E-cadherin/catenin complexes associate with corical actin bundles at both the zonula adherens and the lateral adhesion plaques. Tyrosine phosphorylation can disrupt these complexes, leading to changes in cell adhesion properties. E-Cadherin expression is often down-regulated in highly invasive, poorly differentiated carcinomas. Increased expression of E-Cadherin in these cells reduces invasiveness. Thus, loss of expression or function of E-Cadherin appears to be an important step in tumorigenic progression. Tissue specificity: Non-neural epithelial tissues.

Immunogen

Purified recombinant fragment of human CDH1 expressed in E. Coli.

Formulation

Ascitic fluid containing 0.03% sodium azide.

CDH1 Antibody - Additional Information

Gene ID 999

Other Names

Cadherin-1, CAM 120/80, Epithelial cadherin, E-cadherin, Uvomorulin, CD324, E-Cad/CTF1, E-Cad/CTF2, E-Cad/CTF3, CDH1, CDHE, UVO

Dilution

WB~~1/500 - 1/2000
IHC~~1/200 - 1/1000
FC~~1/200 - 1/400

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

CDH1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CDH1 Antibody - Protein Information

Name CDH1 ([HGNC:1748](#))

Function

Cadherins are calcium-dependent cell adhesion proteins (PubMed:11976333). 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 (PubMed:11976333). Promotes organization of radial actin fiber structure and cellular response to contractile forces, via its interaction with AMOTL2 which facilitates anchoring of radial actin fibers to CDH1 junction complexes at the cell membrane (By similarity). Has a potent invasive suppressor role. It is a ligand for integrin alpha-E/beta-7.

Cellular Location

Cell junction, adherens junction. Cell membrane; Single-pass type I membrane protein Endosome. Golgi apparatus, trans-Golgi network. Cytoplasm. Cell junction, desmosome Note=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. Recruited to desmosomes at the initial assembly phase and also accumulates progressively at mature desmosome cell-cell junctions (PubMed:25208567). Localizes to cell-cell contacts as keratinocyte differentiation progresses (By similarity) {ECO:0000250|UniProtKB:P09803, ECO:0000269|PubMed:25208567}

Tissue Location

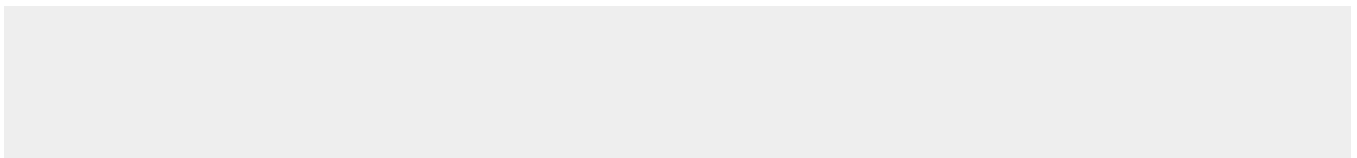
Expressed in granuloma macrophages (at protein level) (PubMed:27760340). Expressed in the skin (at protein level) (PubMed:22294297). Expressed in the liver (PubMed:3263290)

CDH1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CDH1 Antibody - Images



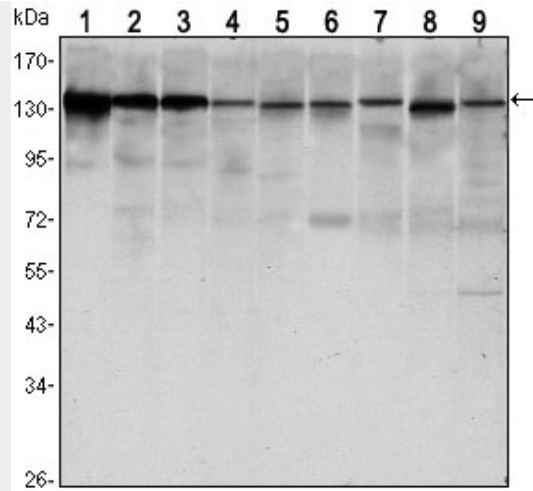


Figure 1: Western blot analysis using CDH1 mouse mAb against LNCAP (1) A431 (2), DU145 (3), PC-3 (4), MCF-7 (5), PC-12 (6), NIH/3T3 (7), C6 (8) and COS7 (9) cell lysate.

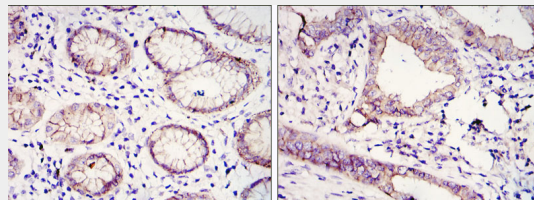


Figure 2: Immunohistochemical analysis of paraffin-embedded gastric cancer tissues (left) and lung cancer tissues (right) using CDH1 mouse mAb with DAB staining.

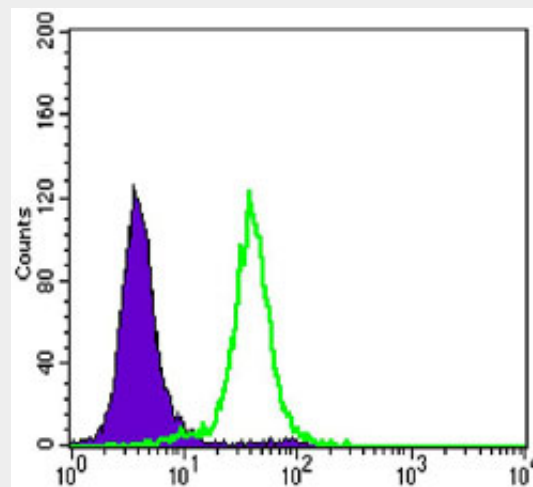


Figure 3: Flow cytometric analysis of Hela cells using CDH1 mouse mAb (green) and negative control (purple).

CDH1 Antibody - References

1. Nat Genet. 2009 Dec;41(12):1330-4.
2. Zhonghua Zhong Liu Za Zhi. 2009 Jul;31(7):515-9.
3. J Biol Chem. 2010 Feb 26;285(9):6658-69.