

# CADH1 Antibody

Purified Mouse Monoclonal Antibody (Mab) Catalog # AM8528b

## Specification

# CADH1 Antibody - Product Information

Application Primary Accession Reactivity Host Clonality Isotype Calculated MW

WB, IHC-P, IF,E <u>P12830</u> Human Mouse monoclonal IgG1,k 97456

## CADH1 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

**Target/Specificity** This CADH1 antibody is generated from a mouse immunized with a recombinat protein between 1-392 amino acids from human CADH1.

Dilution WB~~1:4000 IHC-P~~1:25 IF~~1:25 E~~Use at an assay dependent concentration.

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage

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

**Precautions** CADH1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## **CADH1 Antibody - Protein Information**

Name CDH1 (<u>HGNC:1748</u>)

**Function** Cadherins are calcium-dependent cell adhesion proteins (PubMed:<u>11976333</u>). 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:<u>11976333</u>). 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). Plays a role in the early stages of desmosome cell-cell junction formation via facilitating the recruitment of DSG2 and DSP to desmosome plaques (PubMed:<u>29999492</u>). 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, PubMed:29999492) Localizes to cell-cell contacts as keratinocyte differentiation progresses (By similarity). {ECO:0000250|UniProtKB:P09803, ECO:0000269|PubMed:25208567, ECO:0000269|PubMed:29999492}

#### **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)

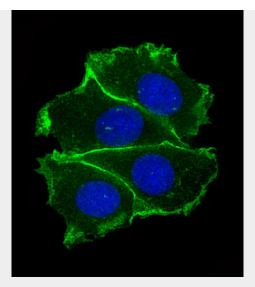
# CADH1 Antibody - Protocols

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

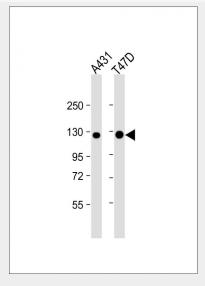
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

CADH1 Antibody - Images



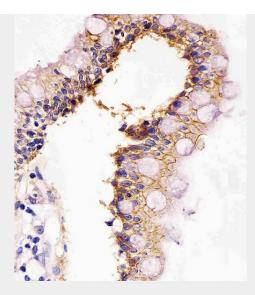


Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized MCF-7 (human breast cancer cell line) cells labeling CADH1 with AM8528b at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-mouse IgG (NA166821) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing membrane and weak cytoplasm staining on MCF-7 cell line. The nuclear counter stain is DAPI (blue).



All lanes : Anti-CADH1 Antibody at 1:4000 dilution Lane 1: A431 whole cell lysate Lane 2: T47D whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-mouse lgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 97 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





AM8528b staining CADH1 in human colon tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

# CADH1 Antibody - Background

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.

# **CADH1 Antibody - References**

Bussemakers M.J.G., et al.Mol. Biol. Rep. 17:123-128(1993). Oda T., et al.Proc. Natl. Acad. Sci. U.S.A. 91:1858-1862(1994). Rimm D.L., et al.Biochem. Biophys. Res. Commun. 200:1754-1761(1994). Ito K., et al.Oncogene 18:7080-7090(1999). Shibamoto S., et al.Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.