

CDH1 Antibody

Mouse Monoclonal Antibody (Mab) Catalog # AM2190b

Product Information

Application WB, IHC-P, E **Primary Accession** P12830

Reactivity Human, Mouse

Host Mouse
Clonality Monoclonal
Isotype IgG1,k
Clone Names 813CT11.1.3
Calculated MW 97456

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 Purified His-tagged CDH1 protein was used to produced this monoclonal

antibody.

Dilution WB~~1:1000 IHC-P~~1:100~500 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 CDH1 Antibody is for research use only and not for use in diagnostic or

therapeutic procedures.

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). 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:29999492). 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)

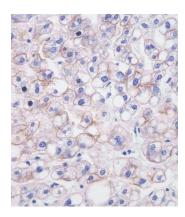
Background

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. E-Cad/CTF2 promotes non-amyloidogenic degradation of Abeta precursors. Has a strong inhibitory effect on APP C99 and C83 production.

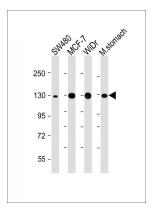
References

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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).
Bussemakers M.J.G., et al. Biochem. Biophys. Res. Commun. 203:1284-1290(1994).

Images



AM2190b staining CDH1 in human liver 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.



All lanes: Anti-CDH1 at 1:4000 dilution Lane 1: SW480 whole cell lysate Lane 2: MCF-7 whole cell lysate Lane 3: WiDr whole cell lysate Lane 4: Mouse stomach lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 98 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

• TALENs-directed knockout of the full-length transcription factor Nrf1α that represses malignant behaviour of human hepatocellular carcinoma (HepG2) cells.

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