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E Cadherin (CDH1) Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1477a

Product Information

Application	FC, WB, E
Primary Accession	P12830
Reactivity	Human
Predicted	Mouse, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB13430
Calculated MW	97456
Antigen Region	160-189

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 E Cadherin (CDH1) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 160-189 amino acids from the N-terminal region of human E Cadherin (CDH1).
Dilution	FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation 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	E Cadherin (CDH1) Antibody (N-term) 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 basal epithelial layer of the esophageal epithelium (at protein level) (PubMed:24220297). Expressed in the liver (PubMed:3263290).

Background

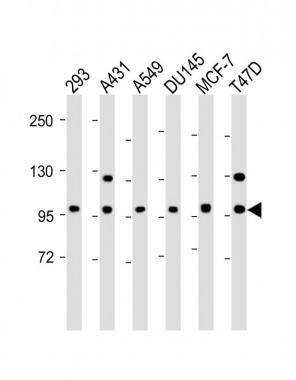
CDH1 is a classical cadherin from the cadherin superfamily. This protein is a calcium dependent cell-cell adhesion glycoprotein comprised of five extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. Mutations are correlated with gastric, breast, colorectal, thyroid and ovarian cancer. Loss of function is thought to contribute to progression in cancer by increasing proliferation, invasion, and/or metastasis. The ectodomain of this protein mediates bacterial adhesion to mammalian cells and the cytoplasmic domain is required for internalization.

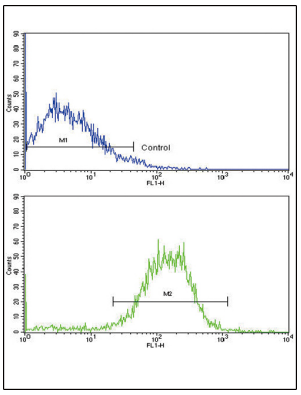
References

Mansouri,A., Differentiation 38 (1), 67-71 (1988) Knudsen,K.A. J. Cell Biol. 118 (3), 671-679 (1992) Hsu,Y.M., Cancer Res. 67 (22), 11064-11073 (2007)

Images

All lanes : Anti-CDH1 Antibody (N-term) at 1:2000 dilution Lane 1: 293 whole cell lysate Lane 2: A431 whole cell lysate Lane 3: A549 whole cell lysate Lane 4: DU145 whole cell lysate Lane 5: MCF-7 whole cell lysate Lane 6: T47D whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 97 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





Flow cytometric analysis of NCI-H292 cells using E Cadherin (CDH1) Antibody (N-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- Exosomal circPABPC1 promotes colorectal cancer liver metastases by regulating HMGA2 in the nucleus and BMP4/ADAM19 in the cytoplasm
- Screening and identification of epithelial-to-mesenchymal transition-related circRNA and miRNA in prostate cancer
- Inhibition of ATM reverses EMT and decreases metastatic potential of cisplatin-resistant lung cancer cells through JAK/STAT3/PD-L1 pathway.
- Intratumoral polymorphonuclear granulocyte is associated with poor prognosis in squamous esophageal cancer by promoting epithelial-mesenchymal transition.
- Down-regulation of TCF21 by hypermethylation induces cell proliferation, migration and invasion in colorectal cancer.
- Pituitary tumor transforming gene PTTG2 induces psoriasis by regulating vimentin and E-cadherin expression.
- ZNF750 inhibited the malignant progression of oral squamous cell carcinoma by regulating tumor vascular microenvironment.
- Identification of aberrantly expressed F-box proteins in squamous-cell lung carcinoma.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.