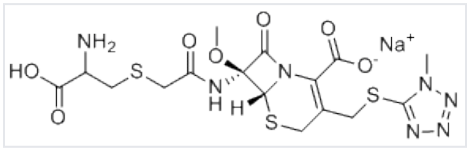
# E-Cadherin(cdh1)/CD324 (CDH1) Antibody – Rabbit Monoclonal

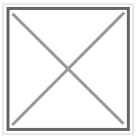
## PRODUCT OVERVIEW

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| **Product Name** | E-Cadherin(CDH1)/CD324, Monoclonal Antibody |
| **Full Product Name** | E-Cadherin(CDH1)/CD324 (Intercellular Junction Marker) Recombinant Rabbit Monoclonal Antibody [Clone CDH1/4398R] |
| **Product Gene Name** | anti-CDH1 antibody |
| **Product Synonym Names** | E-Cadherin(CDH1)/CD324 (Intercellular Junction Marker); Arc 1; cadherin 1 type 1 E-cadherin; Cadherin1; CAM 120/80; CD324; CDH1; CDHE; E-Cad/CTF3; ECAD; Epithelial cadherin; epithelial calcium dependent adhesion protein; Liver cell adhesion molecule (LCAM); Uvomorulin (UVO) |
| **Clonality** | Monoclonal |
| **Isotype** | Rabbit/IgG, kappa |
| **Clone Number** | CDH1/4398R |
| **Host** | Rabbit |
| **Species Reactivity** | Human |
| **Form/Format** | 200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with0. 05% BSA & 0. 05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml. |
| **Concentration** | Purified Ab with BSA and Azide at 200ug/ml<br>OR<br>Purified Ab WITHOUT BSA and Azide at 1.0mg/ml (lot specific) |
| **Preparation and Storage** | Antibody with azide: store at 2 to 8 degree C<br>Antibody without azide: store at -20 to -80 degree C<br>Antibody is stable for 24 months. Non-hazardous. No MSDS required. |
| **Molecular Weight** | 97,456 Da |
| **Chromosome Location** | Chromosome: 16; NC_000016.9 (68771195..68869444). Location: 16q22.1 |
| **OMIM** | 137215 |
| **3D Structure** | ModBase 3D Structure for P12830 |
| **Antibody Type** | Recombinant Antibody |
| **Immunogen** | Synthetic peptide corresponding to E-Cadherin residues within aa600-700 of E-cadherin |
| **Cellular Localization** | Cell Surface |
| **Positive Control** | MCF-7 or SK-BR3 cells. Prostate or colon carcinomas. |
| **Hu-chromosome Location** | 16q22.1 |
| **Unigene** | 461086 |
| **Applications Tested/Suitable for anti-CDH1 antibody** | Immunohistochemistry-Formalin (IHC-F) |
| **Application Notes for anti-CDH1 antibody** | IHC (Formalin-fixed): 1-2ug/ml for 30 minutes at RT<br>(Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH9.0, for 45 minutes at 95 degree C followed by cooling at RT for 20 minutes) |

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| **Related Product Information for anti-CDH1 antibody** | E-cadherin is a transmembrane, calcium dependent cell adhesion protein that mediates cell to cell adhesion and maintains structural and functional integrity of epithelial tissues. It also has pivotal barrier functions and maintains the polarity of epithelial cells. Reduced or aberrant E-cadherin expression breaks cell to cell contacts, and thus, cells acquire the ability to migrate. In normal tissues, immunostaining of E-cadherin is localized to the membrane of epithelial cells, consistent with its role in cell adhesion. And in tumor tissues, E-cadherin stains positively in glandular epithelium as well as adenocarcinomas of the lung, gastrointestinal tract, and ovary. It has also been shown to be positive in some thyroid carcinomas. A combination of E-cadherin and p120 catenin may help distinguish ductal carcinoma of the breast from lobular carcinoma. And also, several studies have reported that reduced E-cadherin expression is correlated with poor prognosis in several types of carcinomas. |
| **Other Notes** | Small volumes of anti-CDH1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for CDH1 purchase** | MBS4382425 is an antibody targeting CDH1. Also known as E-Cadherin(CDH1)/CD324 (Intercellular Junction Marker) Recombinant Rabbit Monoclonal Antibody [Clone CDH1/4398R]. Reactive in Human. Host: Rabbit. |




**Immunohistochemistry (IHC)-Formalin of anti-CDH1 antibody**
Formalin-fixed, paraffin-embedded human cervix stained with E-Cadherin Rabbit RecombinantMonoclonal Antibody (CDH1/4398R).



**Immunohistochemistry (IHC) of anti-CDH1 antibody**

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CDH1. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 4757960 |
| **NCBI GeneID** | 999 |
| **NCBI Accession #** | NP_004351.1 |
| **UniProt Primary Accession #** | P12830 |
| **UniProt Secondary Accession #** | Q13799; Q14216; Q15855; Q16194; Q4PJ14; A8K1U7 |
| **UniProt Related Accession #** | P12830 |
| **GenBank Nucleotide #** | NM_004360.3 |
| **NCBI Official Full Name** | cadherin-1 preproprotein |
| **NCBI Official Synonym Full Names** | cadherin 1, type 1, E-cadherin (epithelial) |
| **NCBI Official Symbol** | CDH1 |
| **NCBI Official Synonym Symbols** | UVO; CDHE; ECAD; LCAM; Arc-1; CD324 |
| **UniProt Protein Name** | Cadherin-1 |
| **UniProt Synonym Protein Names** | CAM 120/80; Epithelial cadherin; E-cadherin; Uvomorulin |
| **Protein Family** | Anaphase-promoting complex |
| **UniProt Gene Name** | CDH1 |
| **UniProt Synonym Gene Names** | CDHE; UVO; E-cadherin |
| **UniProt Entry Name** | CADH1_HUMAN |
| **NCBI Protein Information** | cadherin-1; CAM 120/80; E-Cadherin; uvomorulin; cell-CAM 120/80; epithelial cadherin; cadherin 1, E-cadherin (epithelial); calcium-dependent adhesion protein, epithelial |

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| **NCBI Summary for CDH1** | This gene is a classical cadherin from the cadherin superfamily. The encoded 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 in this gene 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. Identified transcript variants arise from mutation at consensus splice sites. [provided by RefSeq, Jul 2008] |
| **UniProt Comments for CDH1** | CDH1: a single-pass type I membrane protein, and calcium dependent cell adhesion proteins. It is a ligand for integrin alpha-E/beta-7, and it colocalizes with DLG7 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. Involved in mechanisms regulating cell-cell adhesions, mobility and proliferation of epithelial cells. Defects in CDH1 are involved in dysfunction of the cell-cell adhesion system, triggering cancer invasion (gastric, breast, ovary, endometrium and thyroid) and metastasis. Has a potent invasive suppressor role.<br><br>Protein type: Cell adhesion; Motility/polarity/chemotaxis; Membrane protein, integral; Ubiquitin ligase<br><br>Chromosomal Location of Human Ortholog: 16q22.1<br><br>Cellular Component: apical junction complex; internal side of plasma membrane; focal adhesion; cell surface; lateral loop; basolateral plasma membrane; extracellular region; integral to membrane; trans-Golgi network; catenin complex; actin cytoskeleton; cell-cell adherens junction; apical part of cell; perinuclear region of cytoplasm; cytoplasm; plasma membrane; nerve terminal; cell junction; endosome; lateral plasma membrane<br><br>Molecular Function: protein domain specific binding; protein binding; gamma-catenin binding; beta-catenin binding; GTPase activating protein binding; calcium ion binding; cell adhesion molecule binding; ankyrin binding; glycoprotein binding; protein phosphatase binding<br><br>Biological Process: response to drug; intercellular junction assembly and maintenance; extracellular matrix organization and biogenesis; regulation of immune response; apoptosis; response to toxin; positive regulation of transcription, DNA-dependent; regulation of caspase activity; trophectodermal cell differentiation; regulation of water loss via skin; extracellular matrix disassembly; cell-cell adhesion; synaptogenesis; sensory perception of sound; pituitary gland development; calcium-dependent cell-cell adhesion; protein metabolic process; positive regulation of transcription factor import into nucleus; negative regulation of cell-cell adhesion; homophilic cell adhesion; protein homooligomerization; neurite development; negative regulation of epithelial cell proliferation; cell structure disassembly during apoptosis<br><br>Disease: Gastric Cancer, Hereditary Diffuse; Prostate Cancer; Breast Cancer; Ovarian Cancer; Endometrial Cancer |
| **Research Articles on CDH1** | **1.** E-cadherin expression in adenocarcinoma cells is regulated by slug. |
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