E-Cadherin (ABT181) Mouse mAb

CatalogNo: YM4812

Key Features

Host Species
- Mouse

Reactivity
- Human,Mouse,Rat,

Applications
- IHC,WB,IF,ELISA

MW
- 97kD (Calculated)

120kD (Observed)

Isotype
- IgG2b,Kappa

Recommended Dilution Ratios

IHC 1:200-1000
WB 1:500-2000
IF 1:100-500
ELISA 1:1000-5000

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Basic Information

Clonality	Monoclonal
Clone Number	ABT181

Immunogen Information

Immunogen	Synthesized peptide derived from human protein. AA range:700-800
Specificity	The antibody can specifically recognize E-cadherin protein.

Target Information

Gene name CDH1 CDHE UVO

Protein Name Cadherin-1 (CAM 120/80) (Epithelial cadherin) (E-cadherin) (Uvomorulin) (CD antigen CD324) [Cleaved into: E-Cad/CTF1; E-Cad/CTF2; E-Cad/CTF3]

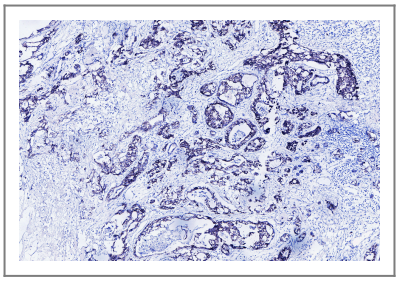
Organism	Gene ID	UniProt ID
Human	999;	P12830;

Cellular Localization Membranous

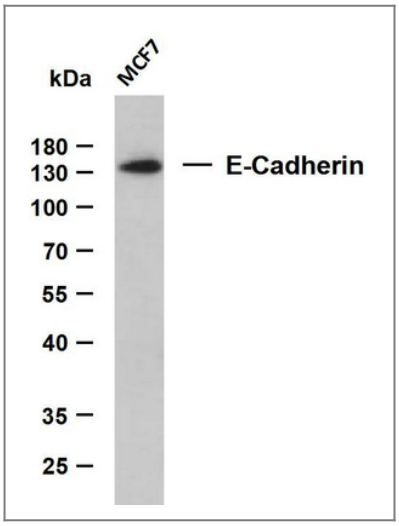
Tissue specificity Non-neural epithelial tissues.

Function Disease:Defects in CDH1 are a cause of gastric cancer [MIM:137215]; also known as hereditary familial diffuse gastric cancer (HDGC).,Disease:Defects in CDH1 are a cause of susceptibility to endometrial cancer [MIM:608089].,Disease:Defects in CDH1 are associated with ovarian cancer [MIM:167000]. Ovarian cancer is the leading cause of death from gynecologic malignancy. It is characterized by advanced presentation with loco-regional dissemination in the peritoneal cavity and the rare incidence of visceral metastases. These typical features relate to the biology of the disease, which is a principal determinant of outcome.,Disease:Defects in CDH1 are involved in dysfunction of the cell-cell adhesion system, triggering cancer invasion (gastric, breast, ovary, endometrium and thyroid) and metastasis.,Function:Cadherins are calcium dependent cell adhesion proteins.,Function: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.,Function:E-Cad/CTF2 promotes non-amyloidogenic degradation of Abeta precursors. Has a strong inhibitory effect on APP C99 and C83 production.,online information:E-cadherin entry,PTM:During apoptosis or with calcium influx, cleaved by a membrane-bound metalloproteinase (ADAM10), PS1/gamma-secretase and caspase-3 to produce fragments of about 38 kDa (E-CAD/CTF1), 33 kDa (E-CAD/CTF2) and 29 kDa (E-CAD/CTF3), respectively. Processing by the metalloproteinase, induced by calcium influx, causes disruption of cell-cell adhesion and the subsequent release of beta-catenin into the cytoplasm. The residual membrane-tethered cleavage product is rapidly degraded via an intracellular proteolytic pathway. Cleavage by caspase-3 releases the cytoplasmic tail resulting in disintegration of the actin microfilament system. The gamma-secretase-mediated cleavage promotes disaaaembly of adherens junctions.,similarity:Contains 5 cadherin domains.,subcellular location: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.,subunit:Homodimer; disulfide-linked. Interacts directly, via the cytoplasmic domain, with CTNNB1 or JUP to form the PSEN1/cadherin/catenin adhesion complex which connects to the actin skeleton through the actin binding of alpha-catenin. Interaction with PSEN1, cleaves CDH1 resulting in the disassociation of cadherin-based adherens junctions (CAJs). Interacts with AJAP1, CTNND1 and DLGAP5.,tissue specificity:Non-neural epithelial tissues.,

Validation Data



Human Breast carcinoma tissue was stained with E-cadherin (ABT181) Antibody



Whole cell lysates were separated by 15% SDS-PAGE, and the membrane was blotted with anti-E-Cadherin (ABT181) antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: MCF7

Contact information

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Please scan the QR code to access additional product information: **E-Cadherin (ABT181) Mouse mAb**