SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-E cadherin antibody

Catalog Number: SL1519R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	E cadherin
Immunogen:	KLH conjugated synthetic peptide derived from human E-cadherin: 841-882/882 <Cytoplasmic>
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 Flow-Cyt=1μg/Test （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human(predicted:Horse,Cow,Pig,Dog,Chicken,Rat,Mouse)
Predicted MW.:	90/97kDa
Subcellular Location:	The cell membrane
Background:	This gene encodes a classical cadherin of the cadherin superfamily. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate the mature glycoprotein. This calcium-dependent cell-cell adhesion protein is 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 of this gene is thought to contribute to cancer progression 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. This gene is present in a gene cluster with other members of the cadherin family on chromosome 16. [provided by RefSeq, Nov 2015]

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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	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. E-Cad/CTF2 promotes non-amyloidogenic degradation of Abeta precursors. Has a strong inhibitory effect on APP C99 and C83 production. **Subunit:** Homodimer. **Subcellular Location:** Cell junction. Cell membrane; Single-pass type I membrane protein. **Tissue Specificity:** Non-neural epithelial tissues. **Post-translational modifications:** 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. 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. Defects in CDH1 are a cause of gastric cancer [MIM:137215]; also known as hereditary familial diffuse gastric cancer (HDGC). Defects in CDH1 are a cause of susceptibility to endometrial cancer [MIM:608089]. 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. **Similarity:** Contains 5 cadherin domains. **Database links:** **Entrez Gene:** 999 Human **Entrez Gene:** 12550 Mouse

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	Entrez Gene: 83502 Rat Omim: 192090 Human **SwissProt:** P12830 Human **SwissProt:** P09803 Mouse **SwissProt:** Q9R0T4 Rat **Unigene:** 461086 Human **Unigene:** 35605 Mouse **Unigene:** 1303 Rat Cell Adhesion Protein E-cadherin is one of the more extensively studied homophilic adhesion molecules. The expression of E-cadherin is negatively correlated with the degree of differentiation, invasiveness, and metastatic potential of malignant Tumour, and positively correlated with prognosis. Low and unstable expression of E-cadherin can promote the occurrence of metastasis. In recent years, it has become one of the hotspots in the study of Tumourcells invasion and metastasis.

[VALIDATION IMAGES]

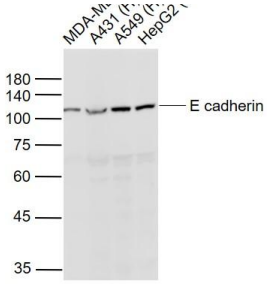


Figure 1. Sample: Lane 1: MDA-MB-231 (Human) Cell Lysate at 30 ug Lane 2: A431 (Human) Cell Lysate at 30 ug Lane 3: A549 (Human) Cell Lysate at 30 ug Lane 4: HepG2 (Human) Cell Lysate at 30 ug Primary: Anti- E cadherin (SL1519R) at 1/500 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 125 kD Observed band size: 120 kD

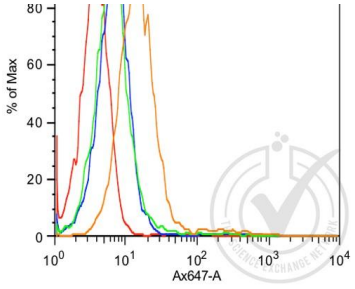


Figure 2. Histogram of MCF7 cells stained with anti-E-cadherin (orange), isotype control antibody (green), secondary antibody only (blue) and unstained (red)

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