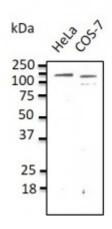


Anti-CDH1 antibody



Description

Goat polyclonal to CDH1. CDH1 is a classical member of the cadherin superfamily. This protein is a calcium dependent cell-cell adhesion glycoprotein comprised consists of 5 cadherin repeats in the extracellular domain, one trans membrane domain, and a and a highly conserved intracellular domain that binds b-catenin and p120-catenin. CDH1 is involved in mechanisms regulating proliferation, mobility and cell-cell adhesions of epithelial cells. Loss of E-cadherin function or expression has been implicated in cancer metastasis and progression.

Model STJ140099

Host Goat

Reactivity Avian, Bovine, Canine, Donkey, Feline, Goat, Guinea Pig, Hamster, Horse,

Human, Mouse, Other, Porcine, Rabbit, Rat, Sheep, Simian

Applications IF, IHC, WB

Immunogen Recombinant peptide derived from within residues 601 to 701 of human

CDH1 produced in E. coli.

Immunogen Region 601-701 aa

Gene ID 999

Gene Symbol CDH1

Dilution range Western blot 1:500-1:2,000 Immunofluorescence 1:50-1:200

Immunohistochemistry (paraffin) 1:200-1:1,000 Immunohistochemistry

(frozen) 1:200-1:1,000

Specificity Detects endogenous levels of total E-cadherin protein by Western blot in the

whole cell lysates (e.g. HeLa and COS-7). This Ab does not recognize CDH2.

Tissue Specificity Non-neural epithelial tissues.

Purification This antibody is epitope-affinity purified from goat antiserum.

Note For research use only (RUO).

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]

Molecular Weight 98 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Modifications

Formulation PBS, 20% glycerol and 0.05% sodium azide.

Concentration 4 mg/mL

Storage Instruction Store at -20°, and avoid repeated freeze-thaw cycles.

Database Links HGNC:1748OMIM:119580

Alternative Names Cadherin-1 (CAM 120/80) (Epithelial cadherin) (E-cadherin) (Uvomorulin)

(CD antigen CD324) [Cleaved into: E-Cad/CTF1; E-Cad/CTF2; E-Cad/CTF3]

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.

Sequence and Domain Family Three calcium ions are usually bound at the interface of each cadherin domain

and rigidify the connections, imparting a strong curvature to the full-length

ectodomain.

Cellular Localization Cell junction Cell membrane. Single-pass type I membrane protein.

Endosome. Golgi apparatus, trans-Golgi network. 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.

Post-translational 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 disassembly of adherens junctions. N-glycosylation at Asn-637 is essential for expression, folding and trafficking. Ubiquitinated by a SCF complex containing SKP2, which requires prior phosphorylation by CK1/CSNK1A1. Ubiquitinated by CBLL1/HAKAI, requires prior phosphorylation at Tyr-754.

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