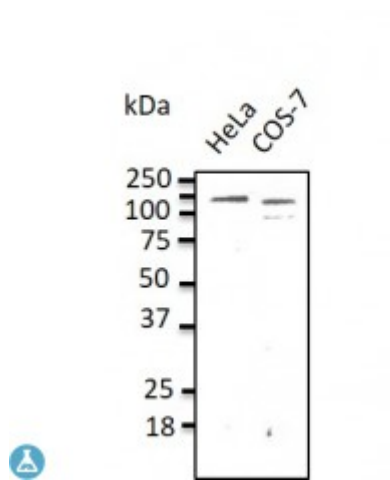


Anti-CDH1 antibody



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
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:1748 OMIM: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 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 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 CBL1/HAKAI, requires prior phosphorylation at Tyr-754.

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