

Recombinant Human CDH2 Protein, His-tagged

Cat. No. CDH2-001H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CDH2 Protein with His tag was expressed in E. coli.
Species	Human
Source	E.coli
Description	Cadherins are a superfamily of transmembrane glycoproteins that contain cadherin repeats of approximately 100 residues in their extracellular domain. Cadherins mediate calcium-dependent cell-cell adhesion and play critical roles in normal tissue development. The classic cadherin subfamily includes N-, P-, R-, B-, and E-cadherins, as well as about ten other members that are found in adherens junctions, a cellular structure near the apical surface of polarized epithelial cells. The cytoplasmic domain of classical cadherins interacts with β-catenin, γ-catenin (also called plakoglobin), and p120 catenin. β-catenin and γ-catenin associate with α-catenin, which links the cadherin-catenin complex to the actin cytoskeleton. While β- and γ-catenin play structural roles in the junctional complex, p120 regulates cadherin adhesive activity and trafficking. Investigators consider E-cadherin an active suppressor of invasion and growth of many epithelial cancers. Research studies indicate that cancer cells have upregulated N-cadherin in addition to loss of E-cadherin. This change in cadherin expression is called the "cadherin switch." N-cadherin cooperates with the FGF receptor, leading to overexpression of MMP-9 and cellular invasion. Research studies have shown that in endothelial cells, VE-cadherin signaling, expression, and localization correlate with vascular permeability and tumor angiogenesis. Investigators have also demonstrated that expression of P-cadherin, which is normally present in

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epithelial cells, is also altered in ovarian and other human cancers.

Molecular Mass	~62 kDa
AA Sequence	DWVIPPINLPENSRGPFQPQLVRIIRSDRDKNLSLRYSVTGPGADQPPTGIFIINPISGQ LSVTKPLDREQIARFHLRAHAVDINGNQVENPIDIVINVIDMNDNRPEFLHQVWNGTV PEGSKPGTYVMTVTAIDADDPNALNGMLRYRIVSQAPSTSPNMFTINNETGDIITVA AGLDREKVQQYTLIIQATDMEGNPTYGLSNTATAVITVTDVNDNPPEFTAMTFYGEV PENRVDIIVANLTVTDKQPHTPAWNAVYRISGGDPTGRFAIQTDPNSENDGLVTVVK PIDFETNRMFVLTVAAENQVPLAKGIQHPPQSTATVSVTVIDVNENPYFAPNPKIIRQE EGLHAGTMLTTFTAQDPDRYMQQNIRYTKLSDPANWLKIDPVNGQITTIIVLDRESP NVKNNIYNATFLASDNGIPPMSTGTGLQIYLLDINDNAPQVLPQEAETCETPDNSINI TALDYDIDPNAGPFAFDLPLSPVTIKRWNITRLNGDFAQLNLKIKFLEAGIYEVPIIITD SGNPPKSNISILRVKVCQCDSNGDCTDVDRIVGAGLGTGA
Purity	Transferred into competent cells and the supernatant was purified by NI column affinity chromatography and the purity is > 85% (by SDS-PAGE).
Notes	For research use only, not for use in diagnostic procedure.
Storage	Store at 4 centigrade short term. Aliquot and store at -20 centigrade long term. Avoid freeze-thaw cycles.
Concentration	≥0.5 mg/mL
Storage Buffer	PBS, 4M Urea, pH7.4

GENE INFORMATION

Gene Name	CDH2 cadherin 2, type 1, N-cadherin (neuronal) [Homo sapiens (human)]
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Official Symbol	CDH2
Synonyms	CDH2; cadherin 2, type 1, N-cadherin (neuronal); NCAD; cadherin-2; CD325; CDHN; N cadherin; N-cadherin 1; neural cadherin; neural-cadherin; cadherin 2, N-cadherin (neuronal); calcium-dependent adhesion protein, neuronal; CDw325;
Gene ID	1000
mRNA Refseq	NM_001792
Protein Refseq	NP_001783
MIM	114020
UniProt ID	P19022
SDS-PAGE	