

## Recombinant Human CDH5 Protein, C-His-tagged

Cat. No. CDH5-003H    Lot. No. (See product label)

### SPECIFICATION

**Product Overview**      Recombinant Human CDH5 Protein with C-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  $\beta$ -catenin,  $\gamma$ -catenin (also called plakoglobin), and p120 catenin.  $\beta$ -catenin and  $\gamma$ -catenin associate with  $\alpha$ -catenin, which links the cadherin-catenin complex to the actin cytoskeleton. While  $\beta$ - and  $\gamma$ -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** ~61 kDa

**AA Sequence**

DWIWNQMHIDEKNTSLPHHVGKIKSSVSRKNAKYLLKGEYVGKVFRVDAETGDVFAIERLDRENISEYHLTAVIVDKDTGENLETPSSFTIKVHDVNDNWPVFTHRLFNASVPESSAVGTSVISVTAVDADDPTVGDHASVVMYQILKGKEYFAIDNSGRIITITKSLDREKQARYEIVVEARDAQQLRGDSGTATVLVTLQDINDNFPFFTQTKYTFVVPEDTRVGTSVGSFLVEDPDPEQNRMTKYSILRGDYQDAFTIETNPAHNEGIKPMKPLDYEYIQQYSFIVEATDPTIDLRYMSPAGNRAQVIINITDVDEPPIFQQPFYHFQLKENQKKPLIGTVLAMDPDAARHSIGYSIRRTSDKGGQFFRVTKKGDYNEKELDREVYPWYNLTVEAKELDSGTGPTGKESIVQVHIEVLVDENDNAPEFAKPYQPKVCENAVHGQLVLQISAIDKDITPRNVKFKFILNTENNFTLTDNHDNTANITVKYGGQFDREHTKVHFLPVVISDNGMPSRTGTSTLTVAVCKCNEQGEFTFCEDMAAQVGVSIQ

**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**

CDH5 cadherin 5, type 2 (vascular endothelium) [ Homo sapiens (human) ]

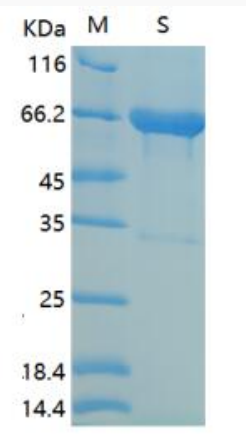
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<b>Official Symbol</b>	CDH5
<b>Synonyms</b>	CDH5; cadherin 5, type 2 (vascular endothelium); cadherin 5, type 2, VE cadherin (vascular epithelium); cadherin-5; 7B4; CD144; VE cadherin; 7B4 antigen; VE-cadherin; cd144 antigen; endothelial-specific cadherin; vascular endothelial cadherin; cadherin 5, type 2, VE-cadherin (vascular epithelium); FLJ17376;
<b>Gene ID</b>	1003
<b>mRNA Refseq</b>	NM_001795
<b>Protein Refseq</b>	NP_001786
<b>MIM</b>	601120
<b>UniProt ID</b>	P33151

**SDS-PAGE**



**SDS-PAGE Result**

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