Cadherin 5 (CDH5) Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	Cadherin 5 (CDH5), Recombinant Protein
Full Product Name	Recombinant Human Cadherin 5
Product Gene Name	CDH5 recombinant protein
Product Synonym Names	Cadherin 5; VE-Cadherin; Cadherin 5 Type 2 VE-Cadherin (Vascular Epithelium); CDH5; Cadherin 5 Type 2 (Vascular Endothelium); Vascular Endothelial Cadherin; 7B4 Antigen; Endothelial-Specific Cadherin; Cd144 Antigen; CD144 Antigen; Cadherin-5; CD144; 7B4; CDH5 Human; Cadherin 5 Human Recombinant
Sequence	NPAQRDTHSL LPTHRRQKRD WIWNQMHIDE EKNTSLPHHV GKIKSSVSRK NAKYLLKGEY VGKVFRVDAE TGDVFAIERL DRENISEYHL TAVIVDKDTG ENLETPSSFT IKVHDVNDNW PVFTHRLFNA SVPESSAVGT SVISVTAVDA DDPTVGDHAS VMYQILKGKE YFAIDNSGRI ITITKSLDRE KQARYEIVVE ARDAQGLRGD SGTATVLVTL QDINDNFPFF TQTKYTFVVP EDTRVGTSVG SLFVEDPDEP QNRMTKYSIL RGDYQDAFTI ETNPAHNEGI IKPMKPLDYE YIQQYSFIVE ATDPTIDLRY MSPPAGNRAQ VIINITDVDE PPIFQQPFYH FQLKENQKKP LIGTVLAMDP DAARHSIGYS IRRTSDKGQF FRVTKKGDIY NEKELDREVY PWYNLTVEAK ELDSTGTPTG KESIVQVHIE VLDENDNAPE FAKPYQPKVC ENAVHGQLVL QISAIDKDIT PRNVKFKFIL NTENNFTLTD NHDNTANITV KYGQFDREHT KVHFLPVVIS DNGMPSRTGT STLTVAVCKC NEQGEFTFCE DMAAQVGVSI QLEPKSCDKT HTCPPCPAPE LLGGPSVFLF PPKPKDTLMI SRTPEVTCVV VDVSHEDPEV KFNWYVDGVE VHNAKTKPRE EQYNSTYRVV SVLTVLHQDW LNGKEYKCKV SNKALPAPIE KTISKAKGQP REPQVYTLPP SRDELTKNQV SLTCLVKGFY PSDIAVEWES NGQPENNYKT TPPVLDSDGS FFLYSKLTVD KSRWQQGNVF SCSVMHEALH NHYTQKSLSL SPGKHHHHHH .
Host	Sf9, Insect cells
Form/Format	Sterile filtered colorless solution Solution (0.5mg/ml) contains Phosphate Buffered Saline (pH 7.4) & 10% glycerol
Purity/Purification	Greater than 90.0% as determined by SDS-PAGE
Preparation and Storage	Store at 4 degree C if entire vial will be used within 2-4 weeks. Store, frozen at-20 degree C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles
Molecular Weight	74,499 Da
OMIM	X79981 mRNA
3D Structure	ModBase 3D Structure for P33151
Product Categories/Family for CDH5 recombinant protein	Recombinant & Natural Proteins; Recombinant Proteins; Cadherin; CDH5 Human

Related Product Information for CDH5 recombinant protein	Description: Cadherin 5 Human Recombinant produced in Sf9 Baculovirus cells is a single, glycosylated polypeptide chain containing 810 amino acids (29-599 a.a.) and having a molecular mass of 91.5kDa (Migrates at 70-100kDa on SDS-PAGE under reducing conditions). CDH5 is expressed with a 239 amino acid hIgG-His-tag at C-Terminus and purified by proprietary chromatographic techniques. Introduction: Cadherin-5 (CDH5) belongs to the atypical/type 2 subgroup of Cadherin homophilic adhesion proteins. Cadherin-5 is a calcium-dependent cell-cell adhesion molecule, which is comprised of 5 extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. Cadherin-5 protein plays a role in the formation, maturation and remodeling of the vascular wall. CDH5 is generally considered to be specific for vascular endothelia in which it is either the sole or the predominant cadherin, often co-existing with N-cadherin. Moreover, the CDH5 protein regulates or is regulated by VEGF R2, type 1 and type 2 TGF-beta receptors, and other endothelial junction proteins such as JAM-C, Claudin-5, and N-Cadherin. CDH5 also connects with alpha-catenin forming a link to the cytoskeleton. CDH5 functions jointly with KRIT1 to create and maintain correct endothelial cell polarity and vascular lumen. Furthermore, Cadherin-5 is essential for activation of PRKCZ and for the localization of phosphorylated PRKCZ, PARD3, TIAM1 and RAP1B to the cell junction. The CDH5 gene is located in a gene cluster in a region on the long arm of chromosome 16 which is involved in loss of heterozygosity events in breast and prostate cancer.
Other Notes	Small volumes of CDH5 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CDH5 purchase	MBS147173 is a recombinant protein targeting CDH5. Also known as Recombinant Human Cadherin 5. Host: Sf9, Insect cells.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CDH5. It may not necessarily be applicable to this product.

NCBI GI #	322510142
NCBI GeneID	1003
NCBI Accession #	P33151.5
UniProt Primary Accession #	P33151
UniProt Secondary Accession #	Q4VAI5; Q4VAI6
UniProt Related Accession #	P33151
NCBI Official Full Name	Cadherin-5
NCBI Official Synonym Full Names	cadherin 5
NCBI Official Symbol	CDH5
NCBI Official Synonym Symbols	7B4; CD144
UniProt Protein Name	Cadherin-5
UniProt Synonym Protein Names	7B4 antigen; Vascular endothelial cadherin; VE-cadherin; CD_antigen: CD144
Protein Family	Cadherin
UniProt Gene Name	CDH5
UniProt Synonym Gene Names	VE-cadherin
NCBI Protein Information	cadherin-5
NCBI Summary for CDH5	This gene encodes a classical cadherin of the cadherin superfamily. The encoded preproprotein is proteolytically processed to generate the mature glycoprotein. This calcium-dependent cell-cell adhesion molecule is comprised of five extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. Functioning as a classical cadherin by imparting to cells the ability to adhere in a homophilic manner, this protein plays a role in endothelial adherens junction assembly and maintenance. This gene is located in a gene cluster in a region on the long arm of chromosome 16 that is involved in loss of heterozygosity events in breast and prostate cancer. [provided by RefSeq, Nov 2015]

UniProt Comments for CDH5	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. This cadherin may play a important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions. It associates with alpha-catenin forming a link to the cytoskeleton. Acts in concert with KRIT1 to establish and maintain correct endothelial cell polarity and vascular lumen. These effects are mediated by recruitment and activation of the Par polarity complex and RAP1B. Required for activation of PRKCZ and for the localization of phosphorylated PRKCZ, PARD3, TIAM1 and RAP1B to the cell junction.
Research Articles on CDH5	**1.** This study demonstrated that changes in gene expression of CDH5 and CLDN5 due to shear stress within individual differentiations also revealed no trend.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/cdh5-recombinant-protein/cadherin-5/147173