

Product Data Sheet

Product Name: CDH5 Human

Cat. No.: GP23105

Batch No.: 1

Product Data

Purity >98%

Source Sf9, Insect cells.

Physical Appearance solid

Shipping Condition Shipped with Ice Packs.

Synonyms

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.

Amino Acid Sequence

NPAQRDTHSL LPTHRRQKRD WIWNQMHIDE EKNTSLPHHV GKIKSSVSRK
NAKYLLKGEY VGKVFRVDAE TGDVFAIERL DRENISEYHL TAVIVDKDTG
ENLETPSSFT IKVHVDVNDNW PVFTHRLFNA SVPESAVGT SVISVTAVDA
DDPTVGDHAS VMYQILKGKE YFAIDNSGRI ITITKSLDRE KQARYEIVVE
ARDAQGLRGD SGTATVLVTL QDINDNFPFF TQTKYTFVVP EDTRVGTSVG
SLFVEDPDEP QNRMTKYSIL RGDYQDAFTI ETNPAHNEGI IKPMKPLDYE
YIQQYSFIVE ATDPTIDLRY MSPPAGNRAQ VIINITDVDE PPIFQQPFYH
FQLKENQKKP LIGTVLAMDP DAARHSIGYS IRRTSKKGQF FRVTKKGDIY
NEKELDREYV PWYNLTVEAK ELDSTGTPTG KESIVQVHIE VLDENDNAPE
FAKPYQPKVC ENAVHGQLVL QISAIDKDIT PRNVKFKFIL NTENNFTLTD
NHDNTANITV KYGQFDREHT KVHFLPVVIS DNGMPSRTGT STLTAVVCKC
NEQGEFTFCE DMAAQVGVSI QLEPKSCDKT HTCPCPAPE LLGGPSVFLF
PPKPKDTLMI SRTPEVTCVV VDVSHEDPEV KFNWYVDGVE VHNATKPRE
EQYNSTYRVV SVLTVLHQDW LNGKEYKCKV SNKALPAPIE KTISKAKGQP
REPQVYTLPP SRDELTKNQV SLTCLVKGFY PSDIAVEWES NGQPENNYKT
TPPVLDSDGS FFLYSKLTVD KSRWQQGNVF SCSVMHEALH NHYTQKSLSL
SPGKHHHHHH.

Formulation

CDH5 solution (0.5mg/ml) contains Phosphate Buffered Saline (pH 7.4) & 10% glycerol.

Introduction

Caution: Product has not been fully validated for medical applications. For research use only.

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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.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°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.

Background

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.

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