Human VE-Cadherin / CD144 / CDH5 Protein
(His & Fc Tag)

Catalog Number: 10433-H03H

General Information

Gene Name Synonym:
7B4; CD144

Protein Construction:
A DNA sequence encoding the extracellular domain of human CDH5
(NP_001786.2) (Met 1-Gln 593) was fused with the C-terminal
polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Endotoxin:
< 1.0 EU per μg of the protein as determined by the LAL method

Stability:
Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ala 26

Molecular Mass:
The recombinant human CDH5/Fc is a disulfide-linked homodimeric
protein. The reduced monomer consists of 815 amino acids after removal
of the signal peptide and has a predicted molecular mass of 92 kDa. In
SDS-PAGE under reducing conditions, the apparent molecular mass of rh
CDH5/Fc monomer is approximately 120 kDa due to glycosylation.

Formulation:
Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as
protectants before lyophilization. Specific concentrations are included in
the hardcopy of COA. Please contact us for any concerns or special
requirements.

Usage Guide

Storage:
Store it under sterile conditions at -20°C to -80°C upon receiving.
Recommend to aliquot the protein into smaller quantities for optimal
storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:
Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:

Protein Description

Cadherins (Calcium dependent adhesion molecules) are a class of
transmembrane proteins. Cadherin-5, also known as VE-cadherin, CDH5
and CD144, an endothelial specific cell-cell adhesion molecule, plays a
pivotal role in the formation, maturation and remodeling of the vascular wall.
VE-Cadherin is widely considered to be specific for vascular endothelia in
which it is either the sole or the predominant cadherin, often co-existing
with N-cadherin. This specificity of VE-cadherin for vascular endothelial
cells is important not only in blood and lymph vessel biology and medicine,
but also for cell-type-based diagnoses, notably those of metastatic tumors.
As a classical cadherin, VE-Cadherin links endothelial cells together by
homophilic interactions mediated by its extracellular part and associates
intracellularly with the actin cytoskeleton via catenins. Mechanisms that
regulate VE-cadherin-mediated adhesion are important for the control of
vascular permeability and leukocyte extravasation. In addition to its
adhesive functions, VE-Cadherin regulates various cellular processes such as
cell proliferation and apoptosis and modulates vascular endothelial
growth factor receptor functions. Consequently, VE-cadherin is essential
during embryonic angiogenesis.

References

1. Taveau JC, et al. (2008) Structure of artificial and natural VE-cadherin-
molecule controlling cellular junctions and blood vessel formation.