Human N-Cadherin / CD325 / CDH2 Protein (His & Fc Tag)

Catalog Number: **11039-H03H**

General Information

Gene Name Synonym:

CD325; CDHN; CDw325; NCAD

Protein Construction:

A DNA sequence encoding the human CDH2 (NP_001783.2) (Met 1-Ala 724) 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: > 70 % 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 ℃

Predicted N terminal: Asp 160

Molecular Mass:

The secreted recombinant human CDH2 is a disulfide-linked homodimeric protein. The reduced monomer comprises 813 amino acids and has a predicted molecular mass of 89.9 kDa. As a result of glycosylation, it migrates as an approximately 114 and 119 kDa band in SDS-PAGE under reducing conditions 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:

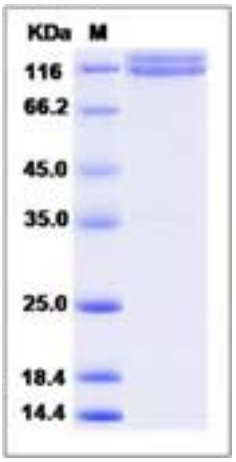
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Cadherins are calcium dependent cell adhesion proteins, and they preferentially interact with themselves in a homophilic manner in connecting cells. Cadherin 2 (CDH2), also known as N-Cadherin (neuronal) (NCAD), is a single-pass tranmembrane protein and a cadherin containing 5 cadherin domains. N-Cadherin displays a ubiquitous expression pattern but with different expression levels between endocrine cell types. CDH2 (NCAD) has been shown to play an essential role in normal neuronal development, which is implicated in an array of processes including neuronal differentiation and migration, and axon growth and fasciculation. In addition, N-Cadherin expression was upregulated in human HSC during activation in culture, and function or expression blocking of N-Cadherin promoted apoptosis. During apoptosis, N-Cadherin was cleaved into 20-100 kDa fragments. It may provide a novel target for therapies that are directed toward intimal proliferative disorders, including restenosis and vascular bypass graft failure. N-Cadherin is associated with tumor aggressiveness and metastatic potential and may contribute to tumor progression.

References

1.Jones M, *et al.* (2002) N-cadherin upregulation and function in response of smooth muscle cells to arterial injury. Arterioscler Thromb Vasc Biol. 22(12): 1972-7. 2.Nagi C, *et al.* (2005) N-cadherin expression in breast cancer: correlation with an aggressive histologic variant--invasive micropapillary carcinoma. Breast Cancer Res Treat. 94(3): 225-35. 3.Schrick C, *et al.* (2007) N-cadherin regulates cytoskeletally associated IQGAP1/ERK signaling and memory formation. Neuron. 55(5): 786-98.