Human Contactin 4 / CNTN4 Protein (His Tag)

Catalog Number: **10178-H08B**

General Information

Gene Name Synonym:

AXCAM; BIG-2

Protein Construction:

A DNA sequence encoding the mature form of human CNTN4 isoform 1 (Q8IWV2-1) (Met 1-Ser 1000) was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % 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 19

Molecular Mass:

The secreted recombinant human CNTN4 consists of 993 amino acids and has a calculated molecular mass of 110 kDa. It migrates as an approximately 120-130 kDa band as predicted in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 8.5, 10% gly

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:

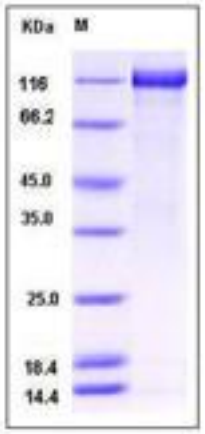
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Contactin-4, abbreviated as CNTN4, is a brain-derived protein belonging to the immunoglobulin superfamily. It has been found high expression in testes, thyroid, small intestine, uterus and brain. This protein is an neuronal membrane protein that functions as an glycosylphosphatidylinositol-anchored cell adhesion molecule. Contactin-4 is considered as a candidate protein responsible for the differentiation potential of human neuroblastoma cells and it has been implicated in some cases of autism and spinocerebellar ataxia type 16. Studies of the cantactin family have revealed a complex pattern of hemophilic and heterophilic interactions that are required for axon growth and pathfinding. Such studies demonstrate that these essential functions are mediated by the combination and juxtaposition of multiple Ig and FNIII domains. Second, these neuronal adhesion molecules demonstrate highly regulated temporal and spatial expression patterns in the CNS. For this reason, the disruption of the regulatory region of the predominant brain-expressed isoform reasonable would be expected to have significant functional consequences.

References

1.Zeng L, *et al*. (2002) A novel splice variant of the cell adhesion molecule contactin 4 (CNTN4) is mainly expressed in human brain. J Hum Genet. 47 (9): 497-9. 2.Thomas Fernandez, *et al*. (2004) Disruption of Contactin 4 (CNTN4) Results in Developmental Delay and Other Features of 3p Deletion Syndrome. Am J Hum Genet. 74 (6): 1286-93. 3.Yoshihara Y, *et al*. (1996) Overlapping and differential expression of BIG-2, BIG-1, TAG-1, and F3: four members of an axon-associated cell adhesion molecule subgroup of the immunoglobulin superfamily. J Neurobiol. 28 (1): 51-69.