Human Contactin 3 / CNTN3 Protein (708 Asp/Asn, Fc Tag)

Catalog Number: **10174-H02H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

BIG-1; PANG; PCS; Pang

Protein Construction:

A DNA sequence encoding the human CNTN3 precursor (NP_065923.1) (Met 1-Ser 1002, 708 Asp/Asn) was expressed with the fused Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

Measured by the ability of the immobilized protein to support the adhesion of C6 Rat brain glial cells . When 5 x 10^4 cells/well are added to CNTN3 coated plates (0.8 μg/ml and 100 μl/well), approximately 30%-50% will adhere specifically after 60 minutes at 37℃.

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: Glu 20

Molecular Mass:

The recombinant human CNTN3/Fc chimera consists of 1221 amino acids and has a calculated molecular mass of 134.5 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhCNTN3/Fc chimera is approximately 160-170 kDa due to glycosylation.

Formulation:

Lyophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5

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:

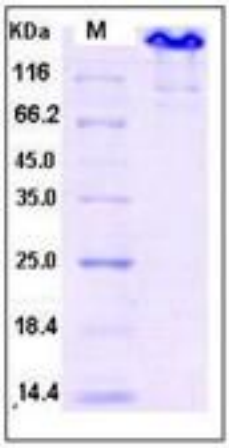
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Contactins are a subgroup of molecules belonging to the immunoglobulin superfamily that are expressed exclusively in the nervous system. The subgroup consists of six members: Contactin-1, Contactin-2(TAG-1), Contactin-3(BIG-1), BIG-2, Contactin-5(NB-2) and NB-3. Since their identification in the late 1980s, Contactin-1 and Contactin-2 have been studied extensively. Axonal expression and the neurite extension activity of Contactin-1 and Contactin-2 attracted researchers to study the function of these molecules in axon guidance during development. Contactin-1 and Contactin-2 have come to be known as the principal molecules in the function and maintenance of myelinated neurons. In contrast, the function of the other four members of this subgroup remained unknown until recently. Contactin-3, also known as CNTN3 (BIG-1 in rat and PANG in mouse), is a GPI-linked glycoprotein that is expressed on cerebellar Purkinje cells, amygdaloid and thalamic neurons and olfactory granule cells. In the brain, Contactin-3 is expressed in frontal lobe, occipital lobe, cerebellum and amygdala. Contactin-3 contains 4 fibronectin type-III domains and 6 Ig-like C2-type (immunoglobulin-like) domains. Human Contactin-3 shares 92% aa identity with mouse Contactin-3.The exact function of Contactin-3 is unclear. Contactin-3 may mediate cell-cell interaction and may promote neurite outgrowth.

References

1.Yoshihara Y, et al. (1994) BIG-1: a new TAG-1/F3-related member of the immunoglobulin superfamily with neurite outgrowth-promoting activity. Neuron 13(2):415-26.
2.Yoshihara Y, et al. (1995) 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. Journal of neurobiology 28(1):51-69.
3.Yoshihara Y, et al. (1995) 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. Journal of neurobiology 28(1):51-69.