Mouse Contactin 5 / CNTN5 Protein (His Tag)

Catalog Number: **51092-M08H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

6720426O10Rik; A830025P08Rik; Gm507; NB-2

Protein Construction:

A DNA sequence encoding the mouse CNTN5 (P68500) (Met1-Gln1058) was expressed with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio Activity:

Measured by the ability of the immobilized protein to support the adhesion of C6 cells. When 5 x 10^4 cells/well are added to CNTN5-coated plates (0.8 μg/mL and 100 μL/well), approximately >70% cells 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: Leu 24

Molecular Mass:

The recombinant mouse CNTN5 comprises 1046 amino acids and has a predicted molecular mass of 115.2 kDa. The apparent molecular mass of the protein is approximately 118 kDa 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:

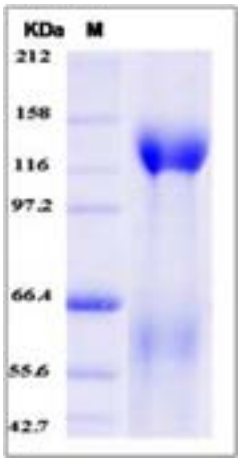
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Contactins are a subgroup of molecules belonging to the immunoglobulin superfamily that are expressed mainly 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-5, also known as NB-2, is one of the neural recognition molecules in the contactin subgroup. Contactin-5 is expressed in brain and kidney and at very low level in placenta. In brain, Contactin-5 is highly expressed in the occipital lobe, amygdala, cerebral cortex, frontal lobe, thalamus and temporal lobe. Mice deficient in the Contactin-5 gene exhibit aberrant responses to acoustic stimuli. Contactin-5 may play a role in maturation of glutamatergic synapses in the brainstem during the final stages of auditory development. Contactin-5 gene may contribute to human neurological disorders.

References

1.Kamei Y, et al. (2000) Human NB-2 of the contactin subgroup molecules: chromosomal localization of the gene (CNTN5) and distinct expression pattern from other subgroup members. Genomics 69(1):113-9. 2.Ogawa J, et al. (2001) Neural recognition molecule NB-2 of the contactin/F3 subgroup in rat: Specificity in neurite outgrowth-promoting activity and restricted expression in the brain regions. J Neurosci Res. 65(2):100-10. 3.Li H, et al. (2003) Aberrant responses to acoustic stimuli in mice deficient for neural recognition molecule NB-2. Eur J Neurosci. 17(5):929-36.