Mouse CDNF / ARMETL1 Protein (His Tag)

Catalog Number: 50569-M08H



Sino Biological Biological Solution Specialist

General Information

Gene Name Synonym:

9330140G23; Armetl1

Protein Construction:

A DNA sequence encoding the mouse CDNF (NP_808315.1) (Met 1-Leu 187) was expressed, with a polyhistidine tag at the C-terminus.

Source:

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Mouse

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 $^\circ\!\!\!\mathrm{C}$

Predicted N terminal: Gln 25

Molecular Mass:

The secreted recombinant mouse CDNF consists of 174 amino acids and migrates as an approximately 20 kDa band in SDS-PAGE under reducing conditions as predicted.

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 $^\circ\!C$ to -80 $^\circ\!C$ 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

Cerebral Dopamine Neurotrophic Factor (CDNF), also known as ARMETL1 (ARMET-like protein 1), is a secreted protein with eight conserved cysteine residues, predicting a unique protein fold and defining a new, evolutionarily conserved protein family. CDNF is a novel neurotrophic factor with strong trophic activity on dopaminergic neurons comparable to that of glial cell line-derived neurotrophic factor (GDNF). CDNF/ARMETL1 is a evolutionary conserved protein which can protect and restore the function of dopaminergic neurons in the rat model of Parkinson's disease, suggesting that CDNF might be beneficial for the treatment of Parkinson's disease. CDNF is widely expressed in neurons in several brain regions including cerebral cortex, hippocampus, substantia nigra, striatum and cerebellum. Human CDNF is glycosylated and secreted from transiently transfected cells. CDNF promotes the survival, growth, and function of dopamine-specific neurons and is expressed in brain regions that undergo cocaine-induced neuroplasticity.

References

1.Choi JM, *et al.* (2011) Analysis of mutations and the association between polymorphisms in the cerebral dopamine neurotrophic factor (CDNF) gene and Parkinson disease. Neurosci Lett. 493(3): 97-101. 2.Sun ZP, *et al.* (2011) Intracellular trafficking and secretion of cerebral dopamine neurotrophic factor in neurosecretory cells. J Neurochem. 117(1): 121-32. 3.Lohoff FW, *et al.* (2009) Association analysis between polymorphisms in the conserved dopamine neurotrophic factor (CDNF) gene and cocaine dependence. Neurosci Lett. 453(3): 199-203.

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