

Mouse CDNF / ARMETL1 Protein (His Tag)

Catalog Number: 50569-M08H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

Cdnf, RP24-129J15.1, 9330140G23, Armetl1, MGC129430

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: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 95 % 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 °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 and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

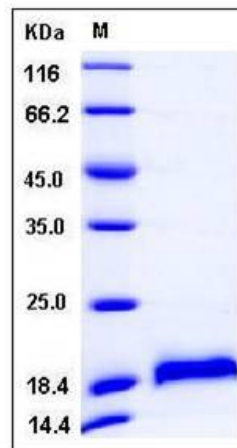
Usage Guide

Storage:

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

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Cerebral dopamine neurotrophic factor, also known as ARMET-like protein 1, Conserved dopamine neurotrophic factor, CDNF and ARMETL1, is a secreted protein which belongs to the ARMET family. CDNF / ARMETL1 is widely expressed in neuronal and non-neuronal tissues. In the brain, highest levels of CDNF / ARMETL1 is expressed in the optic nerve and corpus callosum. Evolutionary conserved family of neurotrophic factors (NTFs) consisting of two members in the vertebrates, cerebral dopamine neurotrophic factor (CDNF) and mesencephalic astrocyte-derived neurotrophic factor (MANF). Invertebrates, including Drosophila and Caenorhabditis have a single protein homologous to vertebrate CDNF / MANF. Characteristic feature of these proteins is eight structurally conserved cysteine residues, which determine the protein fold. The crystal structure analysis revealed that CDNF and MANF consist of two domains; an amino-terminal saposin-like domain that may interact with lipids or membranes, and a presumably unfolded carboxy-terminal domain that may protect cells against endoplasmic reticulum stress. CDNF / ARMETL1 is a trophic factor for dopamine neurons. It prevents the 6-hydroxydopamine (6-OHDA)-induced degeneration of dopaminergic neurons. When administered after 6-OHDA-lesioning, it restores the dopaminergic function and prevents the degeneration of dopaminergic neurons in substantia nigra.

References

1. Lindholm, P. et al., 2007, Nature 448 (7149): 73-7.
2. Apostolou A., et al. 2008, Exp. Cell Res. 314: 2454-67.
3. Parkash, V. et al., 2009, Protein Eng Des Sel 22 (4): 233-41.
4. Lindholm, P. et al., 2010, Dev Neurobiol 70 (5): 360-71.