Cerebral Dopamine Neurotrophic Factor, mouse recombinant (rmCDNF)

Catalog No: 97638
Lot No: XXXXX
Source: *E. coli*
Synonyms: Cerebral dopamine neurotrophic factor, ARMET-like protein 1, Conserved dopamine neurotrophic factor, Cdnf, Armetl1, 9330140G23

Background

CDNF is a member of the ARMET family and acts as a trophic factor for dopamine neurons. CDNF inhibits the 6-hydroxydopamine (6-OHDA)-induced degeneration of dopaminergic neurons. When CDNF controlled after 6-OHDA-lesioning, it reestablishes the dopaminergic function and inhibits the degeneration of dopaminergic neurons in substantia nigra. CDNF is universally expressed in neuronal and non-neuronal tissues. The highest levels in the brain are found in the optic nerve and corpus callosum.

Description

CDNF Mouse Recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 163 amino acids and having a molecular mass of 18.5 kDa. CDNF is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

CDNF protein was lyophilized from a 0.2 µm filtered concentrated solution in 1 x PBS, pH 7.4.

Solubility

It is recommended to reconstitute the lyophilized CDNF in sterile 18 MΩ-cm H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized CDNF although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CDNF should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

QGLEAGVGPR ADCEVCKEFL DRFYNSLLSR GIDFSADTIE KELLNFCSDA KGKENRLCYY LGATTDAATK ILGEVTRPMS VHIPAVKICE KLKKMDSQIC ELKYGKKLDL ASVDLWKMRV AELKQILQRW GEECRACAEK SDYVNLIREL APKYVEIYPQ TEL

Activity

CDNF Mouse is able to enhance neurite outgrowth of E16-E18 rat embryonic cortical neurons when immobilized at 5-30 µg/ml on a nitrocellulose-coated microplate.

Usage

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