

User Manual

Recombinant Rat Glial Cell-derived Neurotrophic Factor (rRtGDNF)

Cat. No. REOPP-07031 (2 μ g)
REOPP-07032 (10 μ g)
REOPP-07033 (1000 μ g)

Description:

Glial cell-derived neurotrophic factor is a founding member of the GDNF family of ligands (GFL) and has been shown to interact with GFRA2 and GDNF family receptor alpha 1. It is a small protein that potently promotes the survival and morphological differentiation of various neuronal. It may also modulate local neuronal effects in distal regions of the motor neuron. GDNF Recombinant rat GDNF (monomer) contains 134 amino acids residues, which is a disulfide-linked homodimer and it shares 99 % and 93 % a.a. sequence identity with mouse and human GDNF.

Source:

Escherichia coli

Unit:

2 µg / 10 µg / 1000 µg

Formulation:

Lyophilized from a 0.2 µm filtered concentrated solution in 1 × PBS, pH 7.4.

Molecular Weight:

Approximately 29.8 kDa, a homodimeric protein consisting of two 134 amino acid non-glycosylated polypeptide chains.

Endotoxin:

Less than 0.1 EU/µg of rRtGDNF as determined by LAL method.

Purity:

> 98 % by SDS-PAGE and HPLC analyses.

Biological Activity:

Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using rat C6 cells is less than 0.2 ng/ml, corresponding to a specific activity of $> 5.0 \times 10^6$ IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

AA Sequence:

SPDKQAAALP RRERNRQAAA ASPENSRGKG RRGQRGKNRG CVLTAIHLNV
TDLGLGYETK EELIFRYCSG SCEAAETMYD KILKNLSRSR RLTSKVGQA

CCRPVAFDDD LSFLDDSLVY HILRKHSAKR CGCI

Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Storage:

This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. **Avoid repeated freeze/thaw cycles.**

Usage:

This material is offered by Cyagen Biosciences for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. **NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAPEUTIC OR DIAGNOSTIC USE.**

Material Safety Data Sheets (MSDSs) are available upon request.

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