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Certificate of Analysis

Recombinant Rat GDNF

Catalog# 450-51

Lot # 1007433

Expiration Date: November 2012

Source: *E.coli*

Sequence: MSPDKQAAAL PRRERNRQAA AASPENSRGK
GRRGQRGKNR GCVLTAIHLN VTDLGLGYET KEELIFRYCS
GSCEAAETMY DKILKNLSRS RRLTSDKVGQ ACCRPVAFDD
DLSFLDDSLV YHILRKHSAK RCGCI

Synonyms: Glial-Derived Neurotrophic Factor, ATF-1

Description: GDNF is a disulfide-linked homodimeric neurotrophic factor structurally related to Artemin, Neurturin and Persephin. These proteins belong to the cysteine-knot superfamily of growth factors that assume stable dimeric protein structures. GDNF signals through a multicomponent receptor system, composed of a RET and one of the four GFR α (α 1- α 4) receptors. GDNF specifically promotes dopamine uptake and survival and morphological differentiation of midbrain neurons. Using Parkinson's disease mouse model, GDNF has been shown to improve conditions such as bradykinesia, rigidity, and postural instability. The functional rat GDNF ligand is a disulfide-linked homodimer, of two 15.0 kDa polypeptide chains called monomers. Each monomer contains seven conserved cysteine residues, one of which is used for inter-chain disulfide bridging and the others are involved in intramolecular ring formation known as the cysteine knot configuration.

Purity: \geq 98% by SDS-PAGE gel and HPLC analyses.

Endotoxin: Endotoxin level is $<$ 0.1 ng / μ g of GDNF ($<$ 1EU/ μ g).

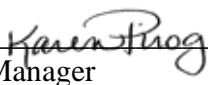
Formulation: Sterile filtered through a 0.2 micron filter. Lyophilized from 10 mM Sodium Citrate.

Reconstitution: Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. *Do not vortex.* This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage/Stability: The lyophilized protein is stable at room temperature for up to 1 month. Working aliquots stored with a carrier protein are stable for at least 3 months at -20°C to -80°C. Avoid repeated freeze/thaw cycles.

Biological activity: Determined by its ability to stimulate the proliferation of rat C6 cells.

Country of Origin: USA



QC Manager

Usage: For Research Use Only. Not for use in diagnostic or therapeutic procedures.