

Recombinant Rat GDNF

Catalog # FL039

Product Specifications

Appearance	Sterile filtered White lyophilized (freeze-dried) powder.
Purity	> 97% by SDS-PAGE or HPLC.
Endotoxin	< 0.01 EU/μg of rRtGDNF protein as determined by LAL method.
Expression System	Expressed in E. coli.
Species	Rat
Tag	Tag free.
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 $\geq 5.0 \times 10^6$ IU/mg
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM PB, with 150 mM NaCl, 0.05% (v/v) Tween-20, pH 7.4.
Reconstitution	Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a 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 $\leq -20^\circ\text{C}$. Further dilutions should be made in appropriate buffered solutions.
Accession #	Q07731 Ser78-Ile211
Amino acid sequence	SPDKQAAALPRRERNRQAAAASPENSRGKGRRGQRGKNRGCVLTAIHLNVTDLGLGYETKEELIFRYCSGSCEAAETMYDKI LKNLSRSRRLTSDKVGQACCRPVAFDDDL SFLDDSLVYHILRKHS AKRCGCI
Molecular weight	Approximately 29.8 kDa, a homodimeric protein consisting of two 134 amino acid non-glycosylated polypeptide chains.
Synonyms	Glial-Derived Neurotrophic Factor, ATF-1
Stability & Storage	Shipped on wet ice. For long term storage, the product should be stored $\leq -20^\circ\text{C}$. Please avoid repeated freeze-thaw cycles after reconstitution. 36 months from date of receipt, -20 to -70°C as supplied. 1 month, 2 to 8°C under sterile conditions after reconstitution. 3 months, -20 to -70°C under sterile conditions after reconstitution.
Precautions	Recombinant Rat GDNF is for research use only and not for use in diagnostic or therapeutic procedures.

Background

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. Recombinant rat GDNF is a homodimeric protein consisting of two 134 amino acid non-glycosylated polypeptide chains and it shares 99% and 93% a.a. sequence identity with murine and human GDNF.

