Recombinant Rat Glial Cell-derived Neurotrophic Factor

#R00336

Size: 10 μg/100 μg/500 μg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 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.

Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

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. GDNF Recombinant rat GDNF (monomer) contains 135 amino acids residues, which is a disulfide-linked homodimer and it shares 99 % and 93 % a.a. sequence identity with mouse and human GDNF.

AA Sequence

SPDKQAAALPRRERNRQAAAASPENSRGKGRRGQR
GKNRGCVLTAIHLNVTDLGLGYETKEELIFRYCSGSC
EAAETMYDKILKNLSRSRRLTSDKVGQACCRPVAFD
DDLSFLDDSLVYHILRKHSAKRCGCI

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.

Product Specification

Synonyms	ATF
Accession	Q07731
GeneID	25453
Species	Rat
Source	Escherichia coli.
Molecular Weight	Approximately 29.8 kDa, a homodimeric protein consisting of two 134 amino acid non-glycosylated polypeptide chains.
Purity	> 98 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED_{50} 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 × 10^6 IU/mg.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 1 × PBS, pH 7.4.
Endotoxin	Less than 0.1 EU/μg of rRtGDNF as determined by LAL method.