Recombinant Human Glial Cell Line-derived Neurotrophic Factor

#R00170

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 neurotrophic factor that enhances survival and morphological differentiation of dopaminergic neurons and increases their high-affinity dopamine uptake. It is a founding member of the GDNF family of ligands (GFL) and has been shown to interact with GFRA2 and GDNF family receptor alpha. GDNF (monomer) contains seven conserved cysteine residues, one of which (Cys 101) is used for inter-chain disulfide bridging and the others are involved in intramolecular ring formation known as the cysteine knot configuration. Rat and human mature GDNF shows 93 % sequence identity and have species cross-reactivity.

AA Sequence

SPDKQMAVLPRRERNRQAAAANPENSRGKGRRGQ
RGKNRGCVLTAIHLNVTDLGLGYETKEELIFRYCSGS
CDAAETTYDKILKNLSRNRRLVSDKVGQACCRPIAFD
DDLSFLDDNLVYHILRKHSAKRCGCI

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, ATF-1
Accession	P39905
GeneID	2668
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 30.1 kDa, a homodimeric protein consisting of two 134 amino acid non-glycosylated polypeptide chains.
Purity	> 95% by SDS-PAGE analyse.
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 0.1 ng/ml, corresponding to a specific activity of > 5.0×10^7 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, with 0.05 % Tween-20.
Endotoxin	Less than 0.1 EU/μg of rHuGDNF as determined by LAL method.