

Recombinant Rat GDNF

Information

Gene ID	25453
Accession #	Q07731
Alternate Names	ATF
Source	<i>Escherichia coli</i> .
M.Wt	Approximately 29.8 kDa, a homodimeric protein consisting of two 134 amino acid non-glycosylated polypeptide chains.
AA Sequence	SPDKQAAALP RRERNRQAAA ASPENSRGKG RRGQRGKNRG CVLTAIHLNV TDLGLGYETK EELIFRYCSG SCEAAETMYD KILKNLSRSR RLTSDKVGQA CCRPVAFDDD LSFLDDSLVY HILRKHSKR CGCI
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 1 × PBS, pH 7.4.
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.
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.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10 µg	100 µg	500 µg
Recombinant Rat GDNF	10 µg	100 µg	500 µg

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Quality Control

Purity	> 98 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 0.1 EU/μg of rRtGDNF as determined by LAL method.

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 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.

Reference

1. Lin LF, Doherty DH, Lile JD, et al. 1993. Science. 260:1130-2.
2. Russell FD, Koishi K, Jiang Y, et al. 2000. Neuroscience. 97:575-80.
3. Jing S, Yu Y, Fang M, et al. 1997. J Biol Chem. 272:33111-7.
4. Cik M, Masure S, Lesage AS, et al. 2000. J Biol Chem. 275:27505-12.

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