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Product Information

Glial Cell Line-derived Neurotrophic Factor from rat recombinant, expressed in *Sf*21 insect cells

Catalog Number **G1401**
Storage Temperature –20 °C

Synonyms: Astrocyte-derived trophic factor, ATF, GDNF, rrGDNF

Product Description

Glial Cell Line-derived Neurotrophic Factor (GDNF) is a member of the TGF-β superfamily, and possesses the seven conserved cysteine residues and the ability to form disulfide-bonded homodimers that are common to all TGF-β members. GDNF is a dimer with a molecular mass of ~30 kDa and shows remarkable cross-species amino acid sequence homology, with 93% identity between rat and human GDNF.[1]

GDNF promotes neuron survival in many different neuron cell types, including dopaminergic neurons,[2] embryonic avian motor neurons,[3] as well as autonomic motor neurons of both parasympathetic and sympathetic systems.[4] In addition, exogenously applied GDNF has been shown to rescue damaged facial motor neurons *in vivo*.[5]

This product is lyophilized from a 0.2 μm-filtered solution of 30% acetonitrile and 0.1% trifluoroacetic acid (TFA) containing 50 μg bovine serum albumin (BSA) per 1 μg of cytokine.

The biological activity of rrGDNF is measured by its ability to bind to immobilized rrGFRα1/Fc in a functional ELISA.

Purity: ≥97% (SDS-PAGE visualized by silver stain)

Endotoxin level: <1.0 EU/μg cytokine
[LAL (Limulus amebocyte lysate) method]

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Stock solutions of ≥100 μg/mL can be prepared in the vial by adding sterile phosphate buffered saline containing at least 0.1% human serum albumin or bovine serum albumin.

Storage/Stability

Store the product at –20 °C.

After reconstitution, the product may be stored at 2-8 °C for up to 1 month. For extended storage, freeze in working aliquots at –70 °C or –20 °C. Repeated freezing and thawing is not recommended.

References

1. Lin, L.F. *et al*., Science, **260**, 1130 (1993).
2. Krieglstein, K. *et al*. Embo. J., **14**, 236 (1995).
3. Oppenheim. R.W. *et al*., Nature, **373**, 344 (1995).
4. Ebendal, T. *et al*., J. Neurocsi. Res., **40**, 276 (1995).
5. Yan, Q. *et al*., Nature, **373**, 341 (1995).
6. Rush, R.A., ed., in *Nerve Growth Factor,* John Wiley and Sons, Ltd. (New York, NY: 1989).

PCG,KCP,SC,KAA,LCM,MAM 07/18-1