

## Product Information

### Glial Cell Line-derived Neurotrophic Factor from rat recombinant, expressed in Sf21 insect cells

Catalog Number **G1401**

Storage Temperature  $-20^{\circ}\text{C}$

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

#### Product Description

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

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

This product is lyophilized from 50.0  $\mu\text{L}$  of a 0.2  $\mu\text{M}$  filtered solution in PBS, pH 7.4 with 50  $\mu\text{g}$  BSA per 1  $\mu\text{g}$  as a carrier protein.

The biological activity of rrGDNF is measured by its ability to bind to immobilized rrGFR $\alpha$ 1/Fc in a functional ELISA.

Purity:  $\geq 97\%$  (SDS-PAGE visualized by silver stain)

Endotoxin level:  $< 1.0$  EU/ $\mu\text{g}$  cytokine  
[LAL (Limulus ameobocyte lysate) method]

#### Precautions and Disclaimer

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

#### Preparation Instructions

Stock solutions of  $\geq 100$   $\mu\text{g/mL}$  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  $-20^{\circ}\text{C}$ .

After reconstitution, the product may be stored at  $2-8^{\circ}\text{C}$  for up to 1 month. For extended storage, freeze in working aliquots at  $-70^{\circ}\text{C}$  or  $-20^{\circ}\text{C}$ . 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. Neurosci. 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).

SBC,PCG,KCP,SC,KAA,LCM,MAM 01/22-1