IMMUNOLOGICAL SCIENCES Product Data Sheet

GRF-10584 **Recombinant Human Glial-Derived Neurotrophic Factor**

Size: 10 μg

Source: Escherichia Coli

Background: GDNF promotes the survival and differentiation of dopaminergic neurons in culture, and is able to prevent apoptosis of motor neurons induced by axotomy. The encoded protein is processed to a mature secreted form that exists as a homodimer. The mature form of the protein is a ligand for the product of the RET (rearranged during transfection) protooncogene. In addition to the transcript encoding GDNF, two additional alternative transcripts encoding distinct proteins, referred to as astrocyte-derived trophic factors, have also been described. Mutations in this gene may be associated with Hirschsprung disease.
GDNF enhances survival and morphological differentiation of dopaminergic neurons and increases their high-affinity dopamine uptake.

Description: Glial derived Neurotrophic Factor Human Recombinant produced in E.Coli is a non-glycosylated disulfide-linked homodimer containing 2 x 135 amino acids and having a total molecular mass of approximately 30kDa.
GDNF is purified by proprietary chromatographic techniques.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation: GDNF was lyophilized from a 0.2μm filtered concentrated solution in 1×PBS, pH 7.4.

Solubility: It is recommended to reconstitute the lyophilized Glial Derived Neurotrophic Factor in sterile 18MΩ-cm H2O not less than 100μg/ml, which can then be further diluted to other aqueous solutions..

Stability: Lyophilized Glial-derived Neurotrophic Factor although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution GDNF should be stored at 4°C between 2-7 days and for future use below -18°C.
For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).
Please prevent freeze-thaw cycles..

Purity: Greater than 95.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Amino-Acid Sequence: MSPDKQMAVL PRRERNRQAA AANPENSRGK GRRGQRGKNR GCVLTAIHLN VTDLGLGYET KEELIFRYCS GSCDAAETTY DKILKNLSRN RRLVSDKVGQ ACCRPIAFDD DLSFLDDNLV YHILRKHSAK RCGCI

Biological Activity: The ED_{50} was determined by the proliferation of rat C6 cells is < 0.1 ng/ml, corresponding to a specific activity of > $1.0x10^7$ units/mg

For Research use only; not for use as a diagnostic

IMMUNOLOGICAL SCIENCES
Web-site: www.immunologicalsciences.com;E-Mail: info@immunologicalsciences.com