
Product Data Sheet

Product Name: GDNF Human

Cat. No.: GP20297

Batch No.: 1

Product Data

Purity	Greater than 95.0% as determined by:(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.	Source	Escherichia Coli.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.	Shipping Condition	Shipped at Room temp.
Synonyms	ATF1; ATF2; HFB1-GDNF; GDNF.		
Amino Acid Sequence	MSPDKQMAVL PRRERNRQAA AANPENSRGK GRRGQRGKNR GCVLTAIHLN VTDLGLGYET KEELIFRYCS GSCDAAETTY DKILKNLSRN RRLVSDKVGQ ACCRPIAFDD DLSFLDDNLV YHILRKHS AK RCGCI.		
Solubility	It is recommended to reconstitute the lyophilized Glial Derived Neurotrophic Factor in sterile 18MΩ-cm H ₂ O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	GDNF was lyophilized from a 0.2μm filtered concentrated solution in 16 ⁺ PBS, pH 7.4.		

Introduction

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.

Caution: Product has not been fully validated for medical applications. For research use only.

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Biological Activity

The ED50 was determined by the proliferation of rat C6 cells is < 0.1 ng/ml, corresponding to a specific activity of $> 1.0 \times 10^7$ units/mg.

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.

Background

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

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