CELL APPLICATIONS, INC.

RECOMBINANT PROTEINS

Human Glial Derived Neurotrophic Factor

SIZE	CAT. NO.
10 ug	RP1002-10
100 ug	RP1002-100
1000 ug	RP1002-1000

BACKGROUND

Glial Cell Line-Derived Neurotrophic Factor, or GDNF, is a neurotrophic factor that is closely related to other neurotrophic factors such as Neurturin, Persephin, and Artemin, by a common structural feature called the cysteine-knot. GDNF signals through a multicomponent system of receptors that includes receptors known as RET, and GFRα1-4 to promote dopamine uptake, survival and differentiation of neurons.

Recombinant human GDNF is a non-glycosylated homodimer, containing two 135 amino acid proteins and has a total molecular mass of 30.4 kDa.

Alternative Names:
ATF-1

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

TECHNICAL INFORMATION

Source: *E.coli*

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

Formulation:
Recombinant human GDNF was lyophilized from 10 mM NaCitrate + 100 mM NaCl, pH 4.0.

Stability:
Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:
Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

Protein Content and Purity determined by:

- UV spectroscopy at 280 nm
- RP-HPLC calibrated against a known standard
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

Endotoxin Level:
Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

Biological Activity:
The activity is calculated by the dose-dependent dopamine uptake in rat mesencephalic cultures and is typically 4-8 ng/ml.