

## Datasheet

# GDNF

## Human Recombinant

Product	Description	Catalogue-No.	Size
GDNF	Glial cell line-derived neurotrophic factor, human recombinant	CB-1116001	10 µg

### Product description

Synonyms: ATF1, ATF2, HFB1-GDNF, GDNF

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 RET (rearranged during transfection) proto-oncogene. 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.

As stated GDNF is a homodimer, produce in E.Coli, non glykosylated, polypeptide chain containing 2x135 amino acids and having a total molecular mass of 30,360 Dalton.

As a means of purifying GDNF, chromatographic techniques were used.

### Solubility and storage conditions

The lyophilized Glial Derived Neurotrophic Factor should be reconstituted in sterile 18 MΩ H<sub>2</sub>O to a concentration not less than 100 µg/ml, which can be further diluted in aqueous solutions.

Although GDNF should be stable at RT for 3 weeks, it should be stored in working aliquots below -18 °C. For long term storage it is recommended to add a carrier protein (0.1 % HAS or BSA).

Please prevent freeze-thaw cycles.

### Composition

Amino acid sequence:

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Ser-Pro-Asp-Lys.

Purity: > 98.0% by RP-HPLC and SDS-PAGE.

Biological activity: The ED<sub>50</sub> as determined by the dose-dependent dopamine uptake in rat mesencephalic cultures was found to be 5-10 ng/ml, corresponding to a specific activity of 100,000-200,000 Units/mg

### Suitability

FOR RESEARCH USE ONLY!

Not approved for human or animal diagnostic or therapeutic procedures.

### Technical Support

Additional information will be available on our website: [www.pan-biotech.com](http://www.pan-biotech.com)

For technical support, questions or remarks please contact your local PAN-Biotech partner or the technical department of PAN-Biotech via email ([info@pan-biotech.com](mailto:info@pan-biotech.com)) or phone +49-8543-60163