

# Recombinant Human Glial-Derived Neurotrophic Factor (GDNF)

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<b>Catalog Number:</b>	PHC7044	PHC7045	PHC7041	PHC7043
<b>Quantity:</b>	5 µg	10 µg	100 µg	1 mg
<b>Lot Number:</b>	See product label.			
<b>Molecular Weight:</b>	30.1 kDa homodimer, disulfide linked.			
<b>Purity:</b>	>98% pure by SDS-PAGE.			
<b>Amino Acid Sequence:</b>	SPDKQMAVLP RRERNRQAAA ANPENSRGKG RRGQRGKNRG CVLTAIHLNV TDLGLGYETK EELIFRYCSG SCDA AETTYD KILKNLSRNR RLVSDKVGQA CCRPIAFDDD LSFLDDNLVY HILRKHSKR CGCI			
<b>Biological Activity:</b>	ED <sub>50</sub> ≤10 ng/mL (Specific Activity: 1.0 × 10 <sup>5</sup> units/mg). The biological activity was determined by inducing neurite outgrowth on PC-12 cells in the presence of recombinant soluble GFR-α.			
<b>Formulation:</b>	Lyophilized, carrier free.			
<b>Sterility:</b>	Filtered prior to lyophilization through a 0.22 micron sterile filter.			
<b>Endotoxin:</b>	<0.1 ng/µg			
<b>Production:</b>	Produced in <i>E. coli</i> and purified by sequential chromatography.			
<b>Reconstitution Recommendation:</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute lyophilized human GDNF in sterile, distilled water to 0.1–0.5 mg/mL. These stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilution should be made in medium or buffered solution containing carrier protein, such as PBS with 0.1% BSA.			
<b>Suggested Working Dilutions:</b>	The optimal concentration should be determined for each specific application.			
<b>Storage:</b>	Lyophilized human GDNF should be stored at 2°C to 8°C, preferably desiccated. Store reconstituted human GDNF at ≤ -20°C (not in a frost-free freezer). Keep freeze-thaw cycles to a minimum.			
<b>Expiration Date:</b>	Expires one year from date of receipt when stored as instructed.			
<b>References:</b>	<p>Lin, L., D. Doherty, J. Lile, S. Bektesh, and F. Collins (1993) GDNF: a glial cell line-derived neurotrophic factor for midbrain dopaminergic neurons. <i>Science</i> 260:1130–1132.</p> <p>Mount, H., D.O. Dean, J. Alberch, C.F. Dreyfus, and I.B. Black (1995) Glial cell line-derived neurotrophic factor promotes the survival and morphologic differentiation of Purkinje cells. <i>Proc. Nat'l. Acad. Sci. USA</i> 92:9092–9096.</p> <p>Treanor, J.J., L. Goodman, F. de Sauvage et al. (1996) Characterization of a multicomponent receptor for GDNF. <i>Nature</i> 382:80–83.</p> <p>Nicole, O., C. Ali, F. Docagne, L. Plawinski, E.T. MacKenzie, D. Vivien, and A. Buisson (2001) Neuroprotection mediated by glial cell line-derived neurotrophic factor: involvement of a reduction of NMDA-induced calcium influx by the mitogen-activated protein kinase pathway. <i>J. Neurosci.</i> 21:3024–3033.</p>			

## Explanation of Symbols

The symbols present on the product label are explained below:

Symbol	Description
	Catalog Number
	Research Use Only
	Use by
	Manufacturer
	Without, does not contain
	Protect from light
	Directs the user to consult instructions for use (IFU), accompanying the product.

Symbol	Description
	Batch code
	In vitro diagnostic medical device
	Temperature limitation
	European Community authorized representative
	With, contains
	Consult accompanying documents

### Limited Use Label License: Research Use Only

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**For Research Use Only. Caution: Not for human or animal therapeutic or diagnostic use.**

Manufactured under ISO 13485 Quality Standard

Manufacturing site: 7335 Executive Way | Frederick, MD 21704 | Toll Free in USA 800.955.6288

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