

TECHNICAL DATA SHEET

Recombinant Human GDNF (Carrier-free)

Catalog Number: 21-8506

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human GDNF (Carrier-free)

DESCRIPTION

Glial Cell derived Neurotrophic Factor (GDNF) is a highly conserved neurotrophic factor. It is a novel member of the TGF-beta superfamily that has been shown to promote survival of various neuronal subpopulations in both the central as well as the peripheral nervous systems at different stages of development. Upregulated expression of GDNF was observed in various cancer cell lines and correlates with malignant cancer progression, suggesting a role of GDNF in carcinogenesis. The mature form of GDNF is a secreted protein that exists as a disulfide-linked homodimeric glycoprotein.

MOLECULAR MASS

Recombinant human GDNF is a disulfide-linked 30 kDa homodimer, composed of two 135 amino acid polypeptide chains.

AMINO ACID SEQUENCE

MSPDKQMAVL PRRERNRQAA AANPENSARGK GRRGQRGKNR GCVLTAIHLN VTDLGLGYET KEELIFRYCS GSCDAAETTY
DKILKNLSRN RRLVSDKVGQ ACCRPIAFDD DLSFLDDNLV YHILRKHS AK RCGCI

SOURCE

E. coli

APPLICATIONS

Bioassay

PURITY

98 %

STORAGE

-20°C

PROTEIN CONTENT

Content Verified by UV Spectroscopy and/or SDS-PAGE

ENDOTOXIN LEVEL

Endotoxin level is <0.1 ng/μg of protein (<1 EU/μg).

AUTHENTICITY

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

CROSS REACTIVITY

Frog, Monkey, Mouse, Rat

BIOACTIVITY

The ED₅₀ was determined by the proliferation of rat C6 cells is ≤ 0.1 ng/ml, corresponding to a specific activity of ≥ 1 x 10⁷ units/mg.

RESEARCH AREAS

Angiogenesis/Cardiovascular; Neurobiology; Stem Cells & Differentiation; TGF-beta Superfamily

RECONSTITUTION

See Certificate of Analysis (COA) for lot specific reconstitution information.

REFERENCES

Gash DM, Zhang Z, Ovadia A, Cass WA, Yi A, Simmerman L, Russell D, Martin D, Lapchak PA, Collins F, Hoffer BJ and Gorhardt GA. 1996. Nature 380: 252-255. Anitha M, Gondha C, Sutliff R, Parsadanian A, Mwangi S, Sitaraman SV and Srinivasan S. 2006. J. Clin. Invest. 116(2): 344-356. Sariola H and Saarma M. 2003. J. Cell Sci. 116: 3855-62.

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