TECHNICAL DATA SHEET

# Recombinant Human Pleiotrophin (Carrier-free)

Catalog Number: 21-7123

**RPx-Pro™ Recombinant Protein**

PRODUCT INFORMATION

## CONTENTS

Recombinant Human Pleiotrophin (Carrier-free)

## DESCRIPTION

The novel heparin-binding cytokine pleiotrophin (also known as HB-GAM) is a neurotrophic factor, structurally related to midkine. This protein is generally found in the central and peripheral nervous system, and expression is highly regulated during development. Neurogenesis and cell migration are some of the proposed functions of pleiotrophin. Like midkine, it signals through the anaplastic lymphoma kinase (ALK) receptor leading to MAPK pathway activation. Pleiotrophin also associates with N-syndecan, enhancing axonal growth and neurite extension.

## MOLECULAR MASS

Recombinant Human Pleiotrophin consists of 136 amino acids, spanning 5 intra-molecular disulfide bonds. It has a molecular weight of 15.4 kDa.

## AMINO ACID SEQUENCE

GKKEKPEKKV KKSDCGEWQW SVCVPTSGDC GLGTREGTRT GAECKQTMKT QRCKIPCNWK KQFGAECKYQ FQAWGECDLN TALKTRTGSL KRALHNAECQ KTVTISKPCG KLTKPKPQAE SKKKKKEGKK QEKMLD

| SOURCE | APPLICATIONS | PURITY | STORAGE |
|---|---|---|---|
| E. coli | Bioassay | 98 % | -20°C |

## PROTEIN CONTENT

Verified by UV Spectroscopy and/or SDS-PAGE gel.

## 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

Bacteria, Chicken, Hamster, Mouse, Rat

## BIOACTIVITY

Data currently unavailable.

## RESEARCH AREAS

Neurobiology

## RECONSTITUTION

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

## REFERENCES

Vanderwinden JM, Mailleux P, Schiffmann SN and Vanderhaeghen JJ. 1992. Anat Embryol. 186(4): 387-406. Rauvala H and Peng HB. 1997. Prog Neurobiol. 52(2): 127-144. Rauvala H, Huttunen HJ, Fages C, Kaksonen M, Kunnunen T, Imai S, Raulo E and Kilpelainen I. 2000. Matrix Biol. 19(5): 377-387. Pavlov I, Võikar V, Kaksonen M, Lauri SE, Hienola A, Taira T and Rauvala H. 2002. Mol Cell Neurosci. 20(2): 330-342.