

TECHNICAL DATA SHEET

# Recombinant Human HGF (Carrier-free)

Catalog Number: 21-8439

**RPx-Pro™ Recombinant Protein**  
PRODUCT INFORMATION

**CONTENTS**

Recombinant Human HGF (Carrier-free)

**DESCRIPTION**

Hepatocyte Growth Factor (HGF), also known as Hepatopoietin A and Scatter Factor, is a dimeric molecule composed of the  $\alpha$ -subunit and beta-subunit, linked by a disulfide bond. It is secreted as a single inactive polypeptide and this pro-peptide is cleaved by serine proteases into alpha- and beta-chains. HGF is reported to be a hepatrophic factor and acts as a growth factor for a wide variety of tissues and cell types. Its functions include induction of cell proliferation, motility, morphogenesis, inhibition of cell growth, and enhancement of neuron survival. The protein is secreted by mesenchymal cells and, after binding to the proto-oncogenic c-Met receptor, activates a tyrosine kinase signaling cascade. Hypoxia and hyperglycemia suppress HGF production.

**MOLECULAR MASS**

Recombinant human HGF, under reducing conditions, has a 69-kDa alpha-chain and 34-kDa beta-chain. The alpha-chain consists of 463 amino acid residues and the beta-chain consists of 234 amino acid residues.

**AMINO ACID SEQUENCE**

Alpha chain: QRKRRNTIHE FKKSATKTLI KIDPALKIKT KKVNTADQCA NRCTRNGKLP FTCKAFVFDK ARKQCLWFPF NSMSSGVKKE FGHEFDLYEN KDIYRNCIIG KGRSYKGTVS ITKSGIKCQP WSSMIPHEHS FLPSSYRGKD LQENYCRNPR GEEGGPWCFT SNPEVRYEVC DIPQCSEVEC MTCNGESYRG LMDHTESGKI CQRWDHQTPH RHKFLPERYP DKGFDNYCR NPDGQPRPWC YTLDPHTRWE YCAIKTCADN TMNDTDVPLE TTECIQQGGE GYRGVTNTIW NGIPCQRWDS QYPHEHDMTP ENFKCKDLRE NYCRNPDGSE SPWCFTTDPN IRVGYCSQIP NCDMSHGQDC YRGNKNYMG NLSQTRSGLT CSMWDKNMED LHRHIFWEPD ASKLNENYCR NPDDDAHGPW CYTGNPLIPW DYCPISRCEG DTTPTIVNLD HPVISCATK QLR Beta chain: VVNGIP TRTNIGWMVS LRYRNKHICG GSLIKESWVL TARQCFPSRD LKDYEAWLGI HDVHGRGDEK CKQVLNVSQ L VYGPEGSDLV LMKLARPAVL DDFVSTIDL P NYGCTIPEKT SCSVYGWGYT GLINYDGLLR VAHLYIMGNE KCSQHHRGKV TLNESEICAG AEKIGSGPCE GDYGGPLVCE QHKMRMVLGV IVPGRGCAIP NRP GIFV RVA YYAKWIHKII LTYKVPQS

**SOURCE**

(BTI-Tn-5B1-4) Hi-5 Insect cells\*

**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**

Dog, Monkey, Mouse, Rabbit, Rat, Human + Mouse

**BIOACTIVITY**

The ED<sub>50</sub> was determined by the dose-dependent stimulation of the proliferation of monkey 4MBr-5 cells was found to be in the range of 20.0-40.0 ng/ml.

**RESEARCH AREAS**

Angiogenesis/Cardiovascular; Cancer; Neurobiology; Proliferation; Stem Cells & Differentiation; Wound Healing

**RECONSTITUTION**

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

**REFERENCES**

Citations are provided as a resource for additional applications that have not been validated by Tonbo Biosciences. Please choose the appropriate format for each application and consult Materials and Methods sections for additional details about the use of any product in these publications.

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