

TECHNICAL DATA SHEET

Recombinant Mouse HGF (Carrier-free)

Catalog Number: 21-8431

RPx-Pro™ Recombinant Protein
PRODUCT INFORMATION

CONTENTS

Recombinant Mouse HGF (Carrier-free)

DESCRIPTION

Hepatocyte Growth Factor (HGF), also known as Hepatopoietin A and Scatter Factor, is a dimeric molecule composed of the α -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 mouse 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: QKKRRNTLHE FKSAKTTLT KEDPLLKIKT KKVNSADECA NRCIRNRGFT FTCKAFVFDK SRKRCYWYPF NSMSSGVKKG FGHEFDLYEN KDYIRNCIIG KGGSYKGTVS ITKSGIKCQP WNSMIPHEHS FLPSSYRGKD LQENYCRNPR GEEGGPWCF SNPEVRYEVC DIPQCSEVEC MTCNGESYRG PMDHTESGKT CQRWDQQTTPH RHKFLPERYP DKGFDNYCR NPDGKPRPWC YTLDPDTPWE YCAIKTCAHS AVNETDVPME TTECIQQGE GYRGTSENTIW NGIPCQRWDS QYPHKHDITP ENFKCKDLRE NYCRNPDGAE SPWCFTTDPN IRVGYCSQIP KCDVSSGQDC YRGNGKNYMG NLSKTRSGLT CSMWDKNMED LHRHIFWEPD ASKLNKNYCR NPDDDAHGPW CYTGNPLIPW DYCPISRCEG DTTPTIVNLD HPVISCAKTK QLR Beta chain: VVNGIPTQTT VGWMVSLKYR NKHICGGLI KESWVLTARQ CFPARNKDLK DYEAWLGIHD VHERGEEKRK QILNISQLVY GPEGSDLVLL KLARPAILDN FVSTIDLPSY GCTIPEKTTTC SIYGWGTYGL INADGLLRVA HLYIMGNEKC SQHHQGVTL NESELGAGAE KIGSGPCEGD YGGPLICEQH KMRMVLGVIV PGRGCAIPNR PGIFVRVAYY AKWIHKVILT YKL

SOURCE

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

APPLICATIONS

Bioassay

PURITY

95 %

STORAGE

-20°C

PROTEIN CONTENT

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

BIOACTIVITY

Determined by the dose-dependent stimulation of the proliferation of mouse IMCD3 cells using a concentration range of 10-20 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

Mizuno K, Inoue H, Hagiya M, Shimizu S, Nose T, Shimohigashi Y and Nakamura T. 1994. J Biol Chem. 269(2): 1131-1136. Nakamura T and Mizuno S. 2010. Proc Jpn Acad Ser B Phys Biol Sci. 86(6): 588-610. Nakamura T, Nishizawa T, Hagiya M, Seki T, Shimonishi M, Sugimura A, Tashiro K and Shimizu S. 1989. Nature. 342(6248): 440-443. Ogura Y, Hamanoue M, Tanabe G, Mitsue S, Yoshidome S, Nuruki K and Aikou T. 2001. Hepatogastroenterology. 48 (38): 545-549. Weidner KM, Sacks M and Birchmeier W. 1993. J Cell Biol. 121: 145-154.

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