

Product Information

HumanKine™ Hepatocyte Growth Factor, human recombinant, expressed in HEK 293 cells

Catalog Number **H5791**

Storage Temperature $-20\text{ }^{\circ}\text{C}$

Synonyms: Hepatopoietin A, HGF, Scatter Factor

Product Description

HumanKine™ HGF is expressed as a glycosylated 70 kDa single chain monomer in human 293 cells. Production in human 293 cells offers authentic glycosylation. Glycosylation contributes to stability in cell growth media and other applications.

Hepatocyte Growth Factor (HGF) is a multifunctional cytokine that promotes mitogenesis, migration, invasion, and morphogenesis.¹ It is a potent mitogen, stimulating the growth of hepatocytes, renal tubular epithelial cells, epidermal keratinocytes, epidermal melanocytes, Mv1Lu (mink lung epithelial cells), and BALB/MK (mouse keratinocytes).² HGF inhibits the growth of B6/F1 (mouse melanoma) cells, KB (human squamous carcinoma) cells, and HepG2 (human hepatoma) cells.² HGF is the ligand for the tyrosine kinase receptor encoded by the *met* proto-oncogene.

The hepatocyte growth factor gene spans ~70 kb and consists of 18 exons interrupted by 17 introns.² The organization of the human HGF gene is highly homologous to that of human plasminogen.³ HGF maps to the long arm of human chromosome 7, 7q21.1.^{4,5}

This product is lyophilized from a solution of 10 mM Tris-HCl, pH 7.4, with 1 M NaCl.

ED₅₀: $\leq 100\text{ ng/mL}$

The specific activity was determined by the dose dependent stimulation of the proliferation of the monkey epithelial cell line 4MBr-5.

Purity: $\geq 95\%$ (SDS-PAGE)

Endotoxin level: $\leq 1\text{ EU}/\mu\text{g}$

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile PBS containing 0.1% endotoxin-free recombinant human serum albumin.

Storage/Stability

Store the product at $-20\text{ }^{\circ}\text{C}$. The lyophilized product remains active for one year at $-20\text{ }^{\circ}\text{C}$. Upon reconstitution, the cytokine can be stored at 2–8 $^{\circ}\text{C}$ for short term only, or at $-20\text{ }^{\circ}\text{C}$ to $-80\text{ }^{\circ}\text{C}$ in aliquots for long term. Avoid repeated freeze-thaw cycles.

References

1. Jiang, W.G., and Hiscox, S., *Histol. Histopathol.*, **2**, 537 (1997).
2. Nakamura, T., et al., *Progress in Growth Factor Research*, **3**, 67 (1991).
3. Petersen, T., et al., *J. Biol. Chem.*, **265**, 6104 (1990).
4. Weidner, K., et al., *Proc. Natl. Acad. Sci. USA*, **88**, 7001 (1991).
5. Fukuyama, R., et al., *Genomics*, **11**, 410 (1991).
6. Nakamura, T., et al., *Nature*, **342**, 440 (1989).

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