

Product Information

Hepatocyte Growth Factor human, recombinant expressed in baculovirus infected High-5 cells

Catalog Number **H1404**
Storage Temperature $-20\text{ }^{\circ}\text{C}$

Synonyms: HGF, Hepatopoietin A, Scatter Factor

Product Description

Hepatocyte Growth Factor (HGF) is a potent mitogen for epithelial cells.¹ HGF has a molecular mass of ~80 kDa.

HGF stimulates 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

The HGF 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 chromosome 7, 7q21.1.^{4,5}

The product is lyophilized from a sterile filtered solution of 0.1 M L-Arginine HCl, 10 mM Tris, pH 8.0, and 200 mM NaCl.

The ED₅₀ is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay. The biological activity of human recombinant HGF is measured by its ability to stimulate ³H-thymidine incorporation in the monkey epithelial cell line, 4MBr-5.⁶

Purity: $\geq 98\%$ (SDS-PAGE)

Endotoxin: $\leq 0.1\text{ ng}/\mu\text{g}$

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

Reconstitute the contents of the vial in water to a concentration of 0.5 mg/ml. This solution can then be diluted into other aqueous buffers and stored at 2–8 °C for up to one week or at $-20\text{ }^{\circ}\text{C}$ for extended use.

Note: This product contains both the pro and active forms of HGF and may require serum for consistent results.

Storage/Stability

Prior to reconstitution, store at $-20\text{ }^{\circ}\text{C}$. The lyophilized product is stable for up to a few weeks at room temperature, but is best stored at $-20\text{ }^{\circ}\text{C}$.

After reconstitution, the product can be stored at 2–8 °C for up to 1 week. For extended storage, freeze in working aliquots at $-20\text{ }^{\circ}\text{C}$. Repeated freezing and thawing is not recommended.

References

1. Furlong, R. et al., *BioEssays*, **14**, 613 (1992).
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. Rubin, J., et al., *Proc. Natl. Acad. Sci. USA*, **88**, 415 (1991).

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