



## Product Information

### Hepatocyte Growth Factor (HGF)

Human, Recombinant

Expressed in *Baculovirus* infected High-5 cells

Product No. **H 1404**

#### Product Description

Hepatocyte Growth Factor (HGF), also known as Hepatopoietin A and Scatter Factor, is a potent mitogen for epithelial cells.<sup>1</sup> HGF has a molecular weight of approximately 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).<sup>2</sup> HGF inhibits the growth of B6/F1 (mouse melanoma) cells, KB (human squamous carcinoma) cells, and HepG2 (human hepatoma) cells.<sup>2</sup> The HGF gene spans approximately 70 kb and consists of 18 exons interrupted by 17 introns.<sup>2</sup> The organization of the human HGF gene is highly homologous to that of human plasminogen.<sup>3</sup> HGF maps to the long arm of chromosome 7, 7q21.1.<sup>4,5</sup>

#### Reagent

Lyophilized from a 0.2  $\mu$ m-filtered buffered solution.

#### Reconstitution and Use

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 °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 °C. The lyophilized product is stable for up to a few weeks at room temperature, but is best stored at -20 °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 °C. Repeated freezing and thawing is not recommended.

#### Product Profile

The biological activity of human recombinant HGF is measured by its ability to stimulate <sup>3</sup>H-thymidine incorporation in the monkey epithelial cell line, 4MBr-5.<sup>6</sup>

The ED<sub>50</sub> is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

Purity:  $\geq$  98% as determined by SDS-PAGE

Endotoxin:  $\leq$  0.1 ng/ $\mu$ g

#### 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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