

## TECHNICAL DATA SHEET

**Human HGF**

Human Hepatocyte Growth factor, recombinant

Synonyms: Scatter Factor (SF), Hepatopoietin (HPTA)

*PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING*

Size	Order #	Lot #	Expiry Date*
10 µg	W 1468952010	3502082010	June 2012

**Description**

Recombinant Human Hepatocyte Growth factor (HGF) is expressed as a linear 697 amino acid polypeptide precursor glycoprotein. Proteolytic processing of this precursor generates the biologically active form of HGF, which consists of two polypeptide chains ( $\alpha$ -chain and  $\beta$ -chain) held by a single disulfide bond resulting in formation of a biologically active heterodimer. The  $\alpha$ -chain consists of 463 amino acid residues and four kringle domains. The  $\beta$ -chain consists of 234 amino acid residues.

HGF is a mesenchymally derived potent mitogen for mature parenchymal hepatocyte cells and acts as a growth factor for a broad spectrum of tissues and cell types. HGF signals through a transmembrane tyrosine kinase receptor known as MET. Activities of HGF include induction of cell proliferation, motility, morphogenesis, inhibition of cell growth, and enhancement of neuron survival. HGF is a crucial mitogen for liver regeneration processes, especially after partial hepatectomy and other liver injuries. Human and murine HGF are cross-reactive.

- **Biological activity** See below
- **Source** Insect cells
- **Purity**  $\geq 98\%$  (SDS-PAGE; HPLC)
- **Endotoxin level**  $\leq 0.1$  ng per  $\mu$ g ( $\leq 1$  EU/ $\mu$ g)
- **Stabilizer** None
- **Buffer** L-Arginine HCL (0.1M) + Tris (10mM; pH 8.0) + NaCl (200mM)
- **Physical state** Sterile filtered, lyophilized

**Biological activity**

The biological activity was determined by the dose-dependent stimulation of the proliferation of monkey 4MBr-5 cells using a concentration range of 20.0-40.0 ng/ml.

**Reconstitution**

We recommend a quick spin followed by reconstitution in water to a concentration of 0.5 mg/ml. *Do not vortex*. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

\* For lyophilized product if stored as indicated. Please contact our technical support if the product has expired.

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**Stability**

The lyophilized protein is stable at room temperature for up 1 month. Working aliquots stored with a carrier protein are stable for at least 12 months at -20°C to -80°C. **Please avoid repeated freeze thaw cycles.**

**Usage**

*FOR RESEARCH USE ONLY*

*NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES*

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