

## 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*
2 µg	W 1468952002	3506092012	September 2013

### 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.

### Stability

The lyophilized protein is stable at room temperature for up to 1 month. Reconstituted human HGF is stable for at least 12 months when stored in working aliquots with a carrier protein 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

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

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