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Certificate of Analysis and Data Sheet Recombinant Human Hepatocyte Growth Factor

Catalog No.
228-10702

Source:
Insect Cells

Synonyms

Scatter Factor (SF), Hepatopoietin (HPTA), HGF, HGFB, F-TCF.

Introduction

Hepatocyte Growth Factor (HGF) is a multifunctional growth factor which regulates both cell growth and cell motility. It exerts a strong mitogenic effect on hepatocytes and primary epithelial cells. HGF synergizes with Interleukin-3 and GM-CSF to stimulate colony formation of hematopoietic progenitor cells in vitro and may, therefore, also modulate hematopoiesis.

Description

Hepatocyte Growth Factor Human Recombinant produced in baculovirus is a heterodimer, non-glycosylated, polypeptide chain consisting an α -chain of 463 amino acids and β -chain of 234 having a total molecular mass of 78.0 KDa.

The HGF is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

The sterile protein powder (1 mg/ml) is lyophilized from a solution containing 50mM Acetic Acid.

Solubility

It is recommended to reconstitute the lyophilized Hepatocyte Growth Factor in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Purity

Greater than 90.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Biological Activity

The activity was assayed for scattering activity in the MDCK cell assay. The ED50 for this effect is typically at 0.5-1ng/ml corresponding to a Specific Activity of 1,00,000-2,000,000IU/mg.

Amino Acid Sequence

Agrees with the sequence of native human HGF.

Protein Content

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 1.83 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a calibrated solution of HGF as a Reference Standard.

Stability

Lyophilized Hepatocyte Growth Factor although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution HGF should be stored at 4°C between 2-7 days and for future use below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

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