



**Synonym**

HGF,HPTA,SF

**Source**

Human HGF Protein, premium grade(HGF-H5218) is expressed from human 293 cells (HEK293). It contains AA Gln 32 - Ser 728 (Accession # [P14210-1](#)). Predicted N-terminus: Gln 32

*It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.*

**Molecular Characterization**

**HGF(Gln 32 - Ser 728)  
P14210-1**

This protein carries no "tag".

The protein has a calculated MW of 79.7 kDa. The protein migrates as 97 kDa±3 kDa under reducing (R) condition, and 81 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 0.01 EU per µg by the LAL method.

**Sterility**

Negative

**Mycoplasma**

Negative.

**Purity**

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

**Storage**

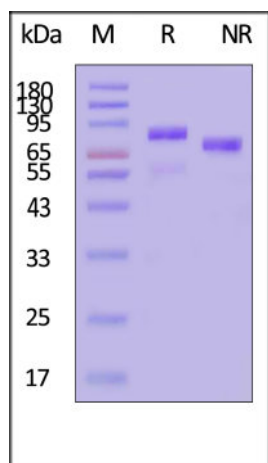
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

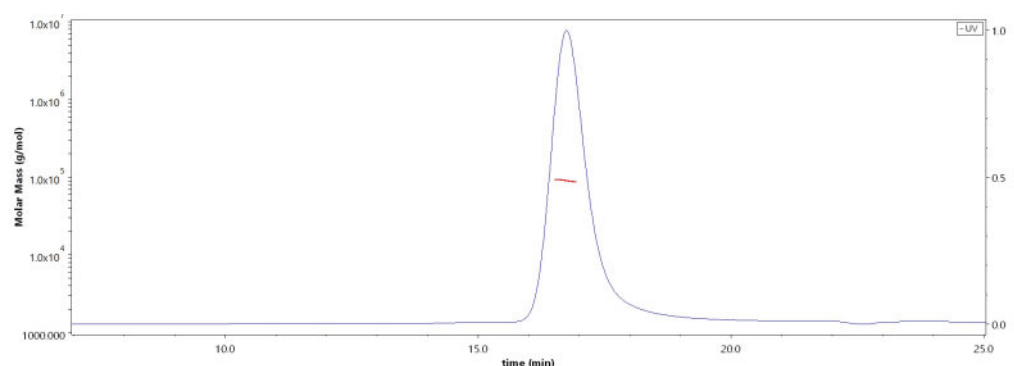
- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**



Human HGF Protein, premium grade on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

**SEC-MALS**



The purity of Human HGF Protein, premium grade (Cat. No. HGF-H5218) is more than 95% and the molecular weight of this protein is around 80-110 kDa verified by SEC-MALS.

[Report](#)

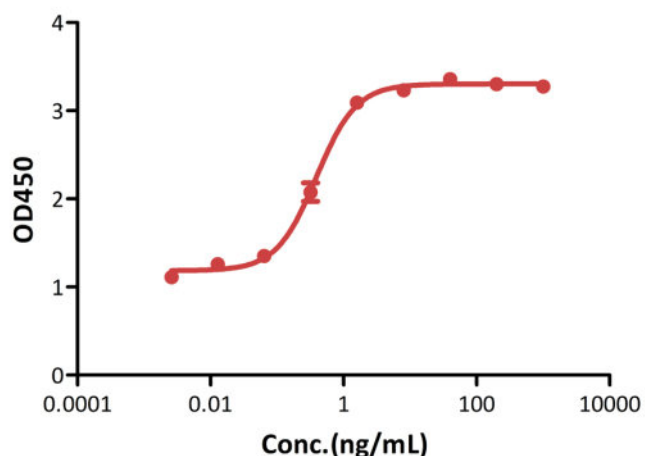
Discounts, Gifts,  
and more!





### Bioactivity-Bioactivity CELL BASE

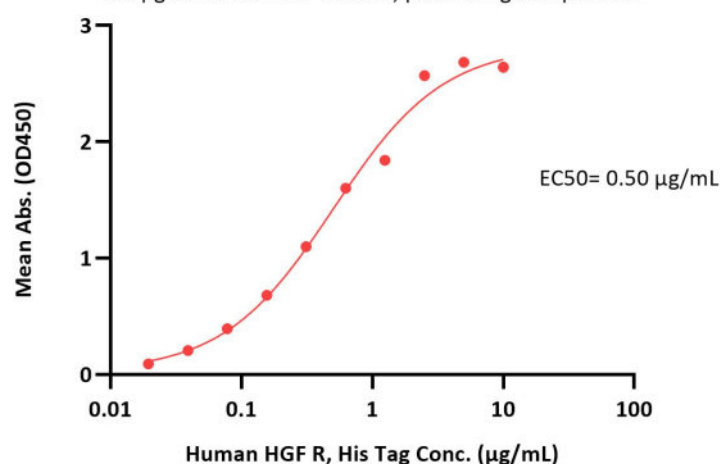
Human HGF Protein, premium grade stimulates the secretion of IL-11 by Saos-2



Human HGF Protein, premium grade (Cat. No. HGF-H5218) stimulates the secretion of IL-11 by Saos-2 cells. The EC50 for this effect is 0.390 ng/mL (Routinely tested).

### Bioactivity-ELISA

Human HGF Protein, premium grade ELISA  
0.2 µg of Human HGF Protein, premium grade per well



Immobilized Human HGF Protein, premium grade (Cat. No. HGF-H5218) at 2 µg/mL (100 µL/well) can bind Human HGF R, His Tag (Cat. No. MET-H5227) with a linear range of 0.02-2.5 µg/mL (QC tested).

### Background

HGF, also known as scatter factor and hepatopoietin A, is a pleiotropic protein in the plasminogen subfamily of S1 peptidases, 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 the induction of cell proliferation, motility, morphogenesis, inhibition of cell growth, and enhancement of neuron survival. HGF is a crucial mitogen for liver regeneration processes, HGF promotes the motility of cardiac stem cells in damaged myocardium.

Human and murine HGF are cross-reactive. Human HGF is expressed as a linear, polypeptide-precursor glycoprotein residues. Proteolytic processing of this precursor generates the biologically active heterodimeric form of HGF, which consists of two polypeptide chains ( $\alpha$ -chain and  $\beta$ -chain) held together by a single disulfide bond resulting in formation of a biologically active heterodimer.

### Clinical and Translational Updates

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