Catalog # HGF-H5218



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 # <u>P14210-1</u>). 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 83 kDa±3 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.01 EU per μg by the LAL method.

Host Cell Protein

<0.5 ng/µg of protein tested by ELISA.

Host Cell DNA

<0.02 ng/µg of protein tested by qPCR.

Sterility

Negative

Mycoplasma

Negative.

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μ m 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

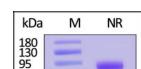
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

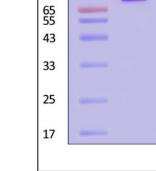
- -20°C to -70°C for 24 months in lyophilized state;
- 70° C for 3 months under sterile conditions after reconstitution.

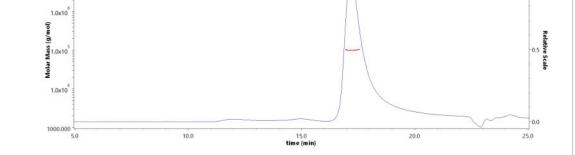
SDS-PAGE



SEC-MALS

1.0x10









-UV -1.0

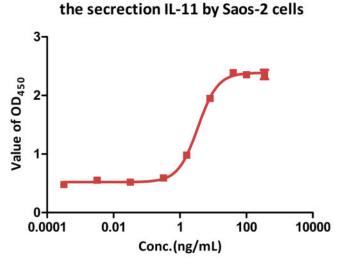
Human HGF Protein, premium grade

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Human HGF Protein, premium grade on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

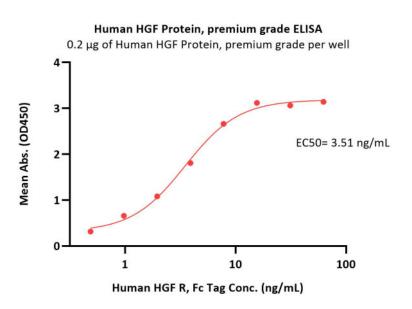
Bioactivity-Bioactivity CELL BASE



Human HGF Protein, premium grade stimulates

Human HGF Protein, premium grade (Cat. No. HGF-H5218) stimulates the secrection IL-11 by Saos-2 cells. The specific activity of Human HGF Protein, premium grade is $> 6.00 \times 10^{5}$ IU/mg, which is calibrated against WHO Hepatocyte Growth Factor(NIBSC code: 96/556) (QC tested).

Bioactivity-ELISA



Immobilized Human HGF Protein, premium grade (Cat. No. HGF-H5218) at 2 μ g/mL (100 μ L/well) can bind Human HGF R, Fc Tag (Cat. No. MET-H5256) with a linear range of 0.5-8 ng/mL (QC tested).

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 85-130 kDa verified by SEC-MALS. Report

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



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precursor generates the biologically active heterodimeric form of HGF, which consists of two polypeptide chains (α -chain and β -chain) held together by a single disulfide bond resulting in formation of a biologically active heterodimer.

Clinical and Translational Updates



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