

# Recombinant Human Hepatocyte growth factor /HGF Protein

Catalog No.: RP01602

## Sequence Information

|                               |                |
|-------------------------------|----------------|
| <b>Species</b>                | <b>Gene ID</b> |
| Human                         | 3082           |
| <b>Swiss Prot</b>             | <b>Tags</b>    |
| P14210                        | C-His          |
| <b>Synonyms</b>               |                |
| HGF,DFNB39,F-TCF,HGFB,HPTA,SF |                |

## Product Information

|               |                                                                 |
|---------------|-----------------------------------------------------------------|
| <b>Source</b> | <b>Purification</b>                                             |
| HEK293 cells  | ≥ 95 % as determined by SDS-PAGE; ≥ 95 % as determined by HPLC. |

|                      |                    |
|----------------------|--------------------|
| <b>Calculated MW</b> | <b>Observed MW</b> |
| 80.51 kDa            | 100-110 kDa        |

### Endotoxin

< 0.1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Background

Hepatocyte growth factor/scatter factor (HGF/SF) is a paracrine cellular growth, motility and morphogenic factor. It belongs to the peptidase S1 family and Plasminogen subfamily, contains 4 kringle domains, 1 PAN domain and 1 peptidase S1 domain. HGF regulates cell growth, cell motility, and morphogenesis by activating a tyrosine kinase signaling cascade after binding to the proto-oncogenic c-Met receptor. HGF is secreted by mesenchymal cells and acts as a multi-functional cytokine on cells of mainly epithelial origin. Its ability to stimulate mitogenesis, cell motility, and matrix invasion gives it a central role in angiogenesis, tumorigenesis, and tissue regeneration.

## Basic Information

### Description

Recombinant Human Hepatocyte growth factor/HGF Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Gln32-Ser728) of human Hepatocyte growth factor/HGF (Accession #NP\_000592.3) fused with His tag at the C-terminus.

### Activity

1. Measured by its ability to induce IL-11 secretion by Saos-2 human osteosarcoma cells. Hjertner, O. et al. (1999) Blood 94:3883. The ED<sub>50</sub> for this effect is 2.23-8.91 ng/mL, corresponding to a specific activity of 1.12×10<sup>5</sup>-4.48×10<sup>5</sup> units/mg. 2. Measured by its ability to inhibit TGFβ1 activity on Mv-1-lu mink lung epithelial cells. The ED<sub>50</sub> for this effect is 2.66-10.64 ng/mL, corresponding to a specific activity of 9.40×10<sup>4</sup>-3.76×10<sup>5</sup> units/mg.

### Shipping

Lyophilized proteins are shipped at ambient temperature. Liquid proteins are shipped at frozen temperature with dry ice. Upon receipt, store it immediately at the temperature recommended below.

### Storage

Store at -20°C

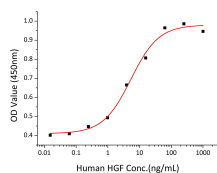
### Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

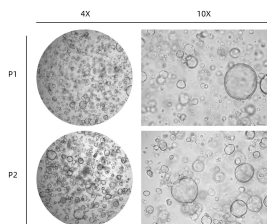
## Contact

|                                                                                     |                                                                          |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
|  | 400-999-6126                                                             |
|  | <a href="mailto:cn.market@abclonal.com.cn">cn.market@abclonal.com.cn</a> |
|  | <a href="http://www.abclonal.com.cn">www.abclonal.com.cn</a>             |

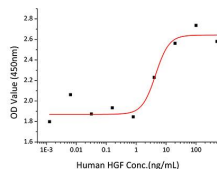
## Validation Data



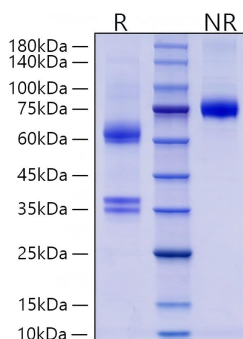
Measured by its ability to inhibit TGFβ1 activity on Mv-1-lu mink lung epithelial cells. The ED<sub>50</sub> for this effect is 2.66-10.64 ng/mL, corresponding to a specific activity of  $9.40 \times 10^4 \sim 3.76 \times 10^5$  units/mg.



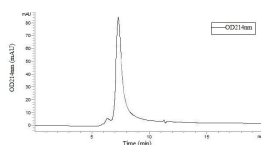
Human liver organoids were cultured with EGF(Cat. RP03287), HGF(Cat. RP01602), FGF2(Cat. RP01042), FGF10(Cat. RP01140), NOG(Cat. RP01237), RSPO1(Cat. RP00071), WNT-3a(Cat. RP01618SLQ).



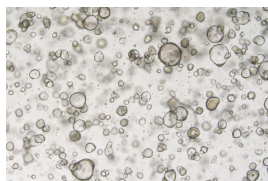
Recombinant Human HGF induce IL-11 secretion by Saos-2 human osteosarcoma cells. The ED<sub>50</sub> for this effect is 2.23-8.91 ng/mL, corresponding to a specific activity of  $1.12 \times 10^5 \sim 4.48 \times 10^5$  units/mg.



Recombinant Human Hepatocyte growth factor/HGF Protein was determined by SDS-PAGE under reducing (R) and non-reducing (NR) conditions.



Recombinant Human Hepatocyte growth factor/HGF Protein is greater than 95% as determined by SEC-HPLC.



Human colorectal cancer organoid were cultured with EGF(Cat. RP03287), NOG(Cat. RP01237), FGF10(Cat. RP01140), RSPO1(Cat. RP00071), HGF(Cat. RP01602), A83-01(Cat. RPM0008), SB202190(Cat. RPM0010), Y-27632 dihydrochloride(Cat. RPM0007), Acetylcysteine/NAC(Cat. RPM0017), Nicotinamide (Cat. RPM0016), Gastrin I(Cat. RPM0011), AB-27 Supplement(Cat. RPM0047LQ).