

HGF

Recombinant Human Hepatocyte Growth Factor

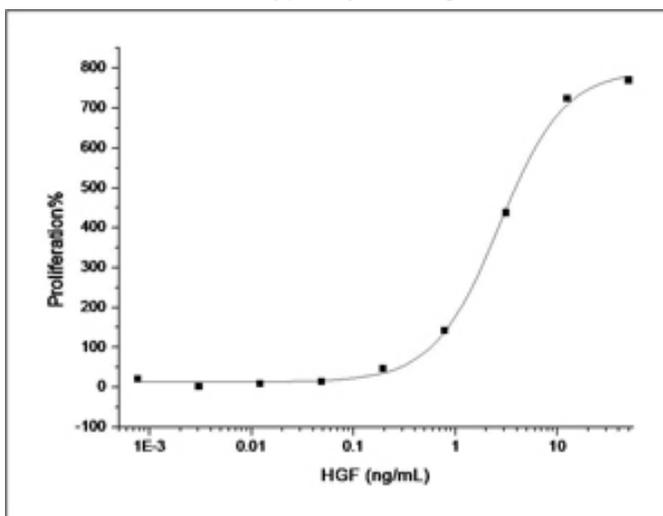
| | | | |
|------------------------------|---|------------------|-----------------|
| Catalog No. | CRH489A CRH489B | Quantity: | 20 µg 100 µg |
| Alternate Names: | Hepatocyte growth factor, Hepatopoietin-A, Scatter factor, SF, Hepatocyte growth factor alpha chain, Hepatocyte growth factor beta chain | | |
| Description: | Hepatocyte growth factor, also known as HGF, contains 4 kringle domains, 1 PAN domain and 1 peptidase S1 domain. It belongs to the peptidase S1 family, plasminogen subfamily. Hepatocyte growth factor is secreted by mesenchymal cells as a single inactive polypeptide and is cleaved by serine proteases into a 69-kDa alpha-chain and 34-kDa beta-chain. A disulfide bond between the alpha and beta chains produces the active, heterodimeric molecule. Hepatocyte growth factor regulates cell growth, cell motility, and morphogenesis by activating a tyrosine kinase signaling cascade after binding to the proto-oncogenic c-Met receptor, 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. HGF is a potent mitogen for mature parenchymal hepatocyte cells, seems to be an hepatotrophic factor, and acts as growth factor for a broad spectrum of tissues and cell types. HGF has no detectable protease activity. Defects in hepatocyte growth factor are the cause of deafness autosomal recessive type 39. | | |
| UniProt ID: | P14210 | | |
| Accession Number: | NP_000592.3 | | |
| Protein Construction: | A DNA sequence encoding the human HGF precursor (Met 1-Ser 728) was expressed and purified. | | |
| Source: | CHO Stable Cells | | |
| Formulation: | Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. | | |
| Molecular Weight: | The secreted recombinant human HGF consists of 697 amino acids after cleavage of the signal peptide and has a predicted molecular mass of 79.7 kDa. The HGF single chain can be processed into the active form of disulfide-linked heterodimer of α and β chain. As a result of glycosylation, it migrates with the apparent molecular mass of 90, 60 and 34 kDa corresponding to the single chain, α chain and β chain respectively in SDS-PAGE under reducing conditions. | | |
| Purity: | > 93 % as determined by SDS-PAGE | | |
| Endotoxin Level: | < 1.0 EU per µg protein as determined by the LAL method. | | |
| Biological Activity: | Measured by its ability to neutralize TGF-beta mediated inhibition on Mv-1-Lu cell proliferation. The ED50 for this effect is typically 2-10 ng/mL. | | |

Predicted N-terminal: Gln 32 (α chain) & Val 495 (β chain)

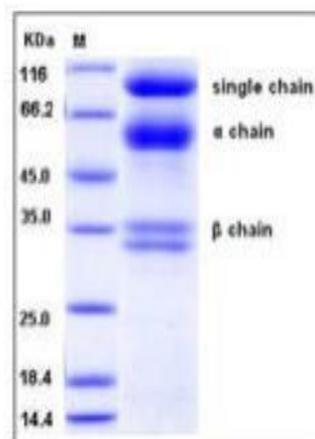
Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX.** Allow several minutes for complete reconstitution.

Storage & Stability: Stable for up to 1 year from date of receipt at -20°C to -80°C . After reconstitution, store working aliquots at -20°C to -80°C . **Avoid repeated freeze-thaw cycles.**

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SDS-PAGE



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