

Recombinant Human Hepatocyte Growth Factor (rh HGF) source HEK-293T

Synonyms: Scatter Factor (SF)

Description: HGF is a mesenchymally derived potent mitogen for mature parenchymal hepatocyte cells and acts as 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 induction of cell proliferation, motility, morphogenesis, inhibition of cell growth and enhancement of neuron survival. HGF is a crucial mitogen for liver regeneration processes, especially after partial hepatectomy and other liver injuries and synergizes with Interleukin-3 and GM-CSF to stimulate colony formation of hematopoietic progenitor cells in vitro and may, therefore also modulate hematopoiesis.

Description: Recombinant human Hepatocyte Growth Factor produced in HEK cells is a heterodimer polypeptide precursor glycoprotein consisting of two polypeptide chains (α -chain and β -chain) held by a single disulfide bond resulting in formation of a biologically active heterodimer. The α -chain consists of 463 amino acid residues and four kringle domains. The β -chain consists of 234 amino acid residues.

Source: HEK-293T (human embryonic kidney cells)

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.2 μ m filtered solution in 25 mM sodium phosphate, 500 mM NaCl, pH 6.0
The aliquots of 1 μ g and 2 μ g contain Trehalose 5% (w/vol) for better recovery

Reconstitution: The lyophilized human HGF is soluble in water and most aqueous buffers. The lyophilized powder can be reconstituted in water to a concentration of 100 μ g/ml. Further dilutions should be made into buffer containing protein or medium containing serum.

Stability: The lyophilized HGF, though stable at room temperature, is best stored desiccated below 0°C. Reconstituted should be stored in working aliquots at -20°C to -70°C. Avoid repeated freeze-thaw cycles!

Purity: 95% by SDS-PAGE and visualised by silver stain.

Amino Acid Sequence:

Alpha chain: QRRRNTIHE FKSAKTTLI KIDPALKIKT KKVNTADQCA NRCTRNGLP FTCKAFVFDK ARKQCLWFPP NSMSSGVKKE FGHEFDLYEN KDIYRNCIIG KGRSYKGTVS ITKSGIKCQP WSSMIPHEHS FLPSSYRGKD LQENYCRNPR GEEGGPWCFST SNPEVRYEVC DIPQCSEVEC MTCNGESYRG LMDHTESGKI CQRWDHQTPH RHKFLPERYP DKGFDNDYCR NPDGQPRPWC YTLDPHTRWE YCAIKTCADN TMNDTDVPLE TTECIQGGQE GYRGTVNTIW NGIPCQRWDS QYPHEDMTP ENFKCKDLRE NYCRNPDGSE SPWCFTTDPN IRVGYCSQIP NCDMSHGQDC YRGNGKNYMG NLSQTRSGLT CSMWDKNMED LHRHIFWEPD ASKLNENYCR NPDDDAHGPW CYTGNPLIPW DYCPISRCEG DTTPTIVNLD HPVISCATK QLR

Beta chain VVNGIPTRTN IGWVMVSLRYR NKHICGGLI KESWVLTARQ CFPSRDLKDY EAWLGIHDVH GRGDEKCKQV LNVSQLVYGP EGSDLVLMKL ARPAVLDDFV STIDLPNYGC TIPEKTSV YGWGYTGLIN YDGLLRVAHL YIMGNEKCSQ HHRGKVTLINE SEICAGAEMI GSGPCEGDYD GPLVCEQHKM RMLGVIVPG RGCAIPNRPG IFVRVAYYAK WIHKILTYK VPQS

Endotoxin: The endotoxin level is less than 1 EU / μ g determined by LAL method

Biological Activity: The ED₅₀ determined by dose dependent scattering of MDCK cells was 0.5 - 2 ng/ml.

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<i>small</i>	2 μ g	Cat.N°	11343412
<i>medium</i>	10 μ g	Cat.N°	11343413
<i>large</i>	50 μ g	Cat.N°	11343415
<i>x-large</i>	250 μ g	Cat.N°	11343417
<i>xx-large</i>	1000 μ g	Cat.N°	11343418

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