

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant HGF, Human

Catalog Number: BK0220-50µg

Source: CHO

Quantity: 50µg

Description:

Hepatocyte Growth Factor (HGF), also known as hepatopoietin-A and scatter factor, is a pleiotropic mitogen belonging to the peptidase S1 family (plasminogen subfamily). It is produced by mesenchymal cells and acts on epithelial cells, endothelial cells and haemopoietic progenitor cells. HGF binds to the proto-oncogenic c-Met receptor to activate a tyrosine kinase signaling cascade. It regulates cell growth, motility and morphogenesis, thus it plays a pivotal role in angiogenesis, tumorigenesis and tissue regeneration. Recombinant human Hepatocyte Growth Factor (rhHGF) is produced in CHO cells and consists of two polypeptide chains (α -chain and β -chain) held by a single disulfide bond resulting in the 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. A fully biologically active molecule, rhHGF has a molecular mass of around 88-90 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Molecular Weight:

88-90 kDa (single chain), 59-61kDa (alpha chain), 30-34kDa (beta chain), observed by reducing SDS-PAGE.

Purity:

> 95% as analyzed by SDS-PAGE.

Biological Activity:

ED50 < 10 ng/ml, measured in a cell proliferation assay using 4MBr5 cells, corresponding to a specific activity of > 1×10^5 units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

QRKRRNTIHEFKKSAKTTLIKIDPALKIK-
TKKVNTADQCANRCTR-
KGLPFTCKAFVFDKARKQLW-

PFNSMSSGVKKEFGHEFDLYENKDYIRNCII-
GKGRSYKGTVSITKSGIKQPWSSMI-
PHEHSFLPSSYRGKDLQENYCRNPRGEEGG-
PWCFTSNPEVRYEVC DIPCSEVECMT CNGESYR
GLMDHTESGKICQRWDHQTPHRHKFLP-
ERYPDKGFDDNYCRNPDGQPR-
PWCYTLDPHTRWEYCAIK-
TCADNTMNDTDVPLETTECIQGGEGYRGTVN-
TIWNGIPCQRWDSQYPHEHDMTPENFKCK-
DLRENYCRNPDGSESPWCFTTDPNIR-
VGYCSQIPNCDMSHGQDCYRGNKKNYMG-
LSQTRSGLTCSMWDKNMEDLHRHIFWEP-
DASKLNENYCRNPD DDAHGPWCYTGNPLIP-
WDYCPISRCEGDTTPTIVNLDHPVISC AK-
TKQLRVVNGIPTRTNIGWMVSLRYRNKHI-
CGGSLIKESWVL-
TARQCFPSRDLKDYEAWLGIHDVHGRGDEKCKQ
VLNVSQLVYGPESDLVLMKLARPAVLDDFVS-
TIDLPNYGCTIPEKTS CSVYGWGYTGLINYD-
GLLRVAHLYIMGNEKCSQHHRGKVTLNESEI-
CAGA EKIGSGPCEGDYGG-
PLVCEQHKMRMVLGVIVPGRG-
CAIPNRPGIFVRVAYYAKWIHKIILTYKVPQS

Endotoxin:

< 0.2 EU/µg, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O or PBS at 100 µg/ml.

Storage:

Lyophilized recombinant human Hepatocyte Growth Factor (HGF) remains stable up to 6 months at -80 °C from date of receipt. Upon reconstitution, human Hepatocyte Growth Factor (HGF) should be stable up to 1 week at 4 °C or up to 2 months at -20 °C.

Usage:

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