Recombinant Human HGF Protein

Cat. No. HGF-20H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human HGF (NK1) protein without tag was expressed in E. coli. Animal-free (AOF) and carrier protein-free. Mass spectrometry: single species with expected mass. Analytical reversed-phase: single sharp peak. Recovery from stock vial: >95%
Species	Human
Source	E.coli
Description	This gene encodes a protein that binds to the hepatocyte growth factor receptor to regulate cell growth, cell motility and morphogenesis in numerous cell and tissue types. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate alpha and beta chains, which form the mature heterodimer. This protein is secreted by mesenchymal cells and acts as a multi-functional cytokine on cells of mainly epithelial origin. This protein also plays a role in angiogenesis, tumorogenesis, and tissue regeneration. Although the encoded protein is a member of the peptidase S1 family of serine proteases, it lacks peptidase activity. Mutations in this gene are associated with nonsyndromic hearing loss.
Molecular Mass	20 kDa
Endotoxin	<0.005 EU/μg protein (below level of detection)

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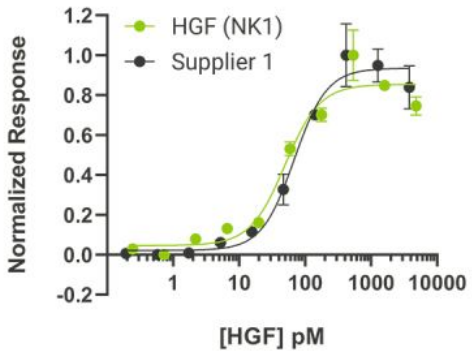
Applications	Differentiation of human iPSCs to hepatocyte-like cells at just 10 ng/mL
Storage	Resuspend in 10mM HCl at >100 µg/mL, prepare single use aliquots, add carrier protein if desired and store frozen at -20 or -80 centigrade
Storage Buffer	Lyophilized from acetonitrile, TFA

GENE INFORMATION

Gene Name	HGF hepatocyte growth factor [Homo sapiens (human)]
Official Symbol	HGF
Synonyms	HGF; hepatocyte growth factor; SF; HGFB; HPTA; F-TCF; DFNB39; hepatocyte growth factor; fibroblast-derived tumor cytotoxic factor; hepatocyte growth factor (hepapoietin A; scatter factor); hepatopoietin-A; lung fibroblast-derived mitogen
Gene ID	3082
mRNA Refseq	NM_000601
Protein Refseq	NP_000592
MIM	142409
UniProt ID	P14210

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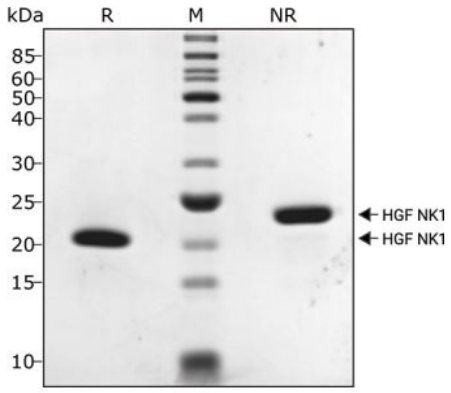
Bioactivity



Comparative bioactivity of HGFand a mammalian cell-expressed full-length HGF from another commercial supplier was demonstrated using a quantitative Promega serum response element luciferase reporter assay in transfected HEK293T cells. EC50 of 49.6 pM and 68.4 pM respectively. Cells are treated in duplicate with a serial dilution of HGF for 6 hours. Firefly luciferase activity is measured and normalized to the control Renilla luciferase activity.

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Purity



HGF NK1 migrates as major band at 20 kDa in non-reducing conditions and 18 kDa upon reduction. Purified recombinant protein was resolved using 15% w/v SDS-PAGE in reducedand non-reduced conditionsand stained with Coomassie Brilliant Blue R250. NB reduced samples were not boiled as the protein is sensitive to high temperatures, which causes degradation.

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