

Active Recombinant Human HGF Protein (Gln32-Ser728, Asp384Asn, Asp416Asn, Leu622Ser, His645Arg, Val678Ile), GMP Grade

Cat. No. HGF-05HG **Lot. No.** (See product label)

SPECIFICATION

Product Overview	GMP recombinant human HGF protein (Gln32-Ser728, Asp384Asn, Asp416Asn, Leu622Ser, His645Arg, Val678Ile) without tag was expressed in Mouse myeloma cell line and manufactured and tested under cGMP guidelines.
Species	Human
Source	NS0
ProteinLength	Gln32-Ser728, Asp384Asn, Asp416Asn, Leu622Ser, His645Arg, Val678Ile
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, tumorigenesis, 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.
Form	Disulfide-linked heterodimer

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Bio-activity	Measured by its ability to induce IL-11 secretion by Saos-2 human osteosarcoma cells. The ED50 for this effect is 0.1-0.5 ng/mL. The specific activity of recombinant human HGF is $>1.0 \times 10^6$ IU/mg, which is calibrated against the human HGF WHO International Standard.
Molecular Mass	Predicted Molecular Mass: alpha chain: 53.7 kDa beta chain: 26 kDa SDS-PAGE: 65-75 kDa, non-reducing conditions; 60-65 kDa, and 30-40 kDa, reducing conditions
N-terminal Sequence Analysis	Amino acid sequencing of the alpha chain was blocked, suggesting it is consistent with h Gln32 Gln32-Arg-Lys-Arg-Arg-Asn-Thr-Ile-His-Glu (alpha -chain) Val495-Val-Asn-Gly-Ile-Pro-Thr-Arg-Thr-Asn (beta -chain)
Endotoxin	<0.10 EU/ µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE with silver staining, under reducing conditions.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. A minimum of 12 months when stored at ≤ -20 centigrade as supplied. Refer to lot specific COA for the Use by Date. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, ≤ -20 centigrade under sterile conditions after reconstitution.
Storage Buffer	Lyophilized from a 0.2 µm filtered solution in PBS.
Reconstitution	Reconstitute at 100 µg/mL in PBS.
Shipping	The product is shipped with polar packs.

GENE INFORMATION

Gene Name HGF hepatocyte growth factor (hepapoietin A; scatter factor) [Homo sapiens]

Official Symbol HGF

Synonyms HGF; hepatocyte growth factor (hepapoietin A; scatter factor); deafness, autosomal recessive 39 , DFNB39; hepatocyte growth factor; F TCF; fibroblast derived tumor cytotoxic factor; hepatopoietin A; HGFB; HPTA; lung fibroblast derived mitogen; scatter factor; SF; hepatopoeitin-A; hepatopoietin-A; lung fibroblast-derived mitogen; fibroblast-derived tumor cytotoxic factor; F-TCF; DFNB39;

Gene ID 3082

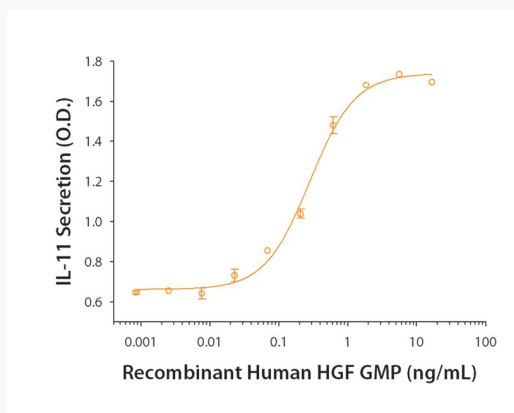
mRNA Refseq NM_000601

Protein Refseq NP_000592

MIM 142409

UniProt ID P14210

Bioactivity

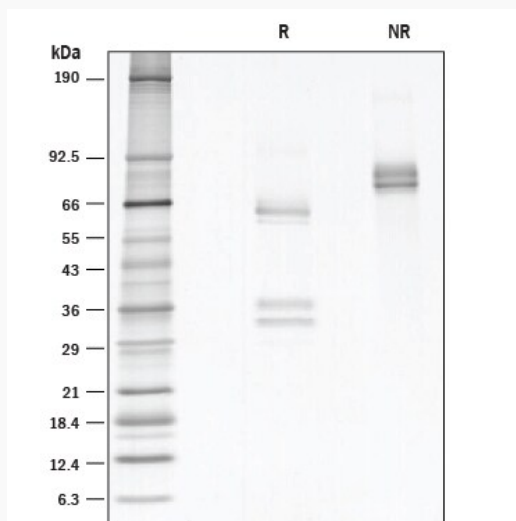


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SDS-PAGE



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