

**Recombinant Human Growth Hormone
(rhGF)
Catalog Number: 301-01**

Description	Human Growth Hormone (GH) is a member of a family of growth factors that includes prolactin, placental lactogens, proliferins, and somatolactin. It is synthesized primarily by somatotropes in the anterior pituitary and is stored in secretory granules. The pulsatile release of GH into circulation is regulated by the concerted actions of the hypothalamic hormones-GH-releasing hormone (GHRH) and somatostatin (SST) - as well as by signals from the periphery - ghrelin and leptin. ⁴ The human GH cDNA encodes a 217 amino acid (aa) residue precursor protein with a 26 aa putative signal peptide. By alternative splicing, at least four isoforms of GH have been identified.
Synonyms	Somatotropin, GHN, GH-N, hGH-N, IGHD1B, pituitary growth hormone
AA Sequence	FPTIPLSRLF DNAMLRAHRL HQLAFDITYQE FEEAYIPKEQ KYSFLQNPQT SLCFSESIPT PSNREETQQK SNLELLRISL LLIQSWLEPV QFLRSVFANS LVYGASDSNV YDLLKDLEEG IQTLMGRLED GSPRTGQIFK QTYSKFDTNS HNDDALLKNY GLLYCFRKDM DKVETFLRIV QCRSVEGSCG F
Source	<i>Escherichia coli</i>
Molecular Weight	Approximately 22 kDa, a single non-glycosylated polypeptide chain containing 191 amino acids
Purity	>96% by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active. The ED ₅₀ is < 0.1ng/ml, as determined by rat lymphoma NB2-11 proliferation.
Physical Appearance	White lyophilized powder.
Formulation	Lyophilized from a 0.2µm filtered concentrated solution with 5mM NaHCO ₃ , pH 7.0
Endotoxin	< 1EU/µg of growth factor as determined by LAL method.
Reconstitution	Reconstitute in sterile distilled water containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL.
Storage	Store at -20°C after receiving. Upon reconstitution, store at 2-8°C for up to one week. For maximal stability, aliquot and store at -20°C. Avoid repeated freeze/ thaw cycles.
Usage	This product is for research use only. It is not approved for use in humans, animals, or <i>in vitro</i> diagnostic procedures.