

## Recombinant Human GH

### Information

<b>Accession #</b>	P1223
<b>Alternate Names</b>	GH1, GH, GHN, GH-N, hGH-N, Pituitary Growth Hormone, Growth Hormone 1, Somatotropin.
<b>Source</b>	<i>Escherichia coli</i> .
<b>Protein sequence</b>	FPTIPLSRLF DNAMLRAHRL HQLAFDTYQE FEEAYIPKEQ KYSFLQNPQT SLCFSESIPT PSNREETQQK SNLELLRISL LLIQSWLEPV QFLRSVFANS LVYGASDSNV YDLLKDLEEG IQTLMGRLED GSPRTGQIFK QTYSKFDTNS HNDDALLKNY GLLYCFRKDM DKVETFLRIV QCRSVEGSCG F
<b>M.Wt</b>	22 kDa
<b>Appearance</b>	Solution protein
<b>Stability &amp; Storage</b>	Avoid repeated freeze-thaw cycles. It is recommended that the protein be aliquoted for optimal storage.- 12 months from date of receipt, -20 to -70°C as supplied.
<b>Concentration</b>	0.1-1.0 mg/mL
<b>Formulation</b>	Dissolved in Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. This solution can be diluted into other aqueous buffers.
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using rat Nb2-11 lymphoma cells is less than 0.1 ng/ml, corresponding to a specific activity of $> 1.0 \times 10^7$ IU/mg.
<b>Shipping Condition</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Quality Control

<b>Purity</b>	> 98 % by SDS-PAGE and HPLC analyses
<b>Endotoxin</b>	<0.1 EU per 1 ug of the protein by the LAL method.

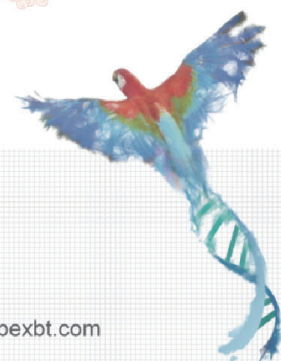
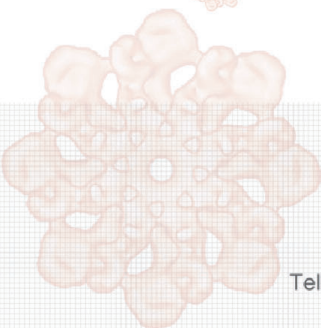
### Description

Growth hormone (GH), also known as somatotropin, is a member of a family of growth factors that includes prolactin, placental lactogens, proliferins, and somatolactin. It is a peptide hormone that stimulates growth, cell reproduction and regeneration in humans and other animals. Growth hormone is a 191-amino acid, single-chain polypeptide that is synthesized, stored, and secreted by somatotrophic cells within the lateral wings of the anterior pituitary gland. 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. 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.

## Reference

- [1]. Goffin, V., K.T. Shiverick, P.A. Kelly, et al. 1996. Endocr Rev, 17: 385-410.
- [2]. Tannenbaum, G.S., W. Gurd, and M. Lapointe. 1998. Endocrinology, 139: 3871-5.
- [3]. Welniak, L.A., R. Sun, and W.J. Murphy. 2002. J Leukoc Biol, 71: 381-7.



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