

Recombinant Human Growth Hormone (GH) Protein

Product Information

Product Name	Cat#	Size
Recombinant Human Growth Hormone (GH) Protein	92801ES60	100 µg
	92801ES76	500 µg

Product 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 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. GH stimulates the liver and other tissues to produce IGF-1, which regulates growth and metabolism. GH has also been shown to have direct effects on growth that is independent of IGF-1. GH, directly or indirectly via IGF-1, can act on B cells, T cells, NK cells, macrophages and neutrophils to exert immunomodulatory activities. Furthermore, GH can act directly on various cell types to induce lipolysis, lactation, amino acid uptake and protein synthesis.

Product Properties

Synonyms	GH1, GH, GHN, GH-N, hGH-N, Pituitary Growth Hormone, Growth Hormone 1, Somatotropin
Accession	P01241
GeneID	2688
Source	E.coli-derived Human GH, Phe27-Phe217.
Molecular Weight	Approximately 22 kDa.
AA Sequence	FPTIPLSRLF DNAMLRAHRL HQLAFDITYQE FEEAYIPKEQ KYSFLQNPQT SLCFSESIPT PSNREETQQK SNLELLRISL LLIQSWLEPV QFLRSVFANS LVMGASDSNV YDLLKDLEEG IQTLMGRLED GSPRTGQIFK QTYSKFDTNS HNDDALLKNY GLLYCFRKDM DKVETFLRIV QCRSVEGSCG F
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 98% by SDS-PAGE and HPLC analyses.
Biological Activity	The ED ₅₀ 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 × 10 ⁷ IU/mg. Fully biologically active when compared to standard.
Endotoxin	< 1.0 EU per 1µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution with 20 mM PB, pH 7.0, with 3% Mannitol. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
Reconstitution	Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!