Recombinant Human Somatotropin/GH-N/GH1 Protein

Catalog No.: RP00033

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Sequence Information

Species	Gene ID
Human	2688
Swiss Prot	**Tags**
P01241	C-His

Synonyms
GH1, GH, GH-N, GHB5, GHN, IGHD1B, hGH-N, somatotropin,GH, GH-N,GHB5,GHN,IGHD1B,hGH-N

Product Information

Source	Purification
E. coli	≥ 90 % as determined by SDS-PAGE.
Calculated MW	**Observed MW**
22.97 kDa	18-25 kDa

Endotoxin
< 0.1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of 20mM Tris, 150mM NaCl, pH 8.0.Contact us for customized product form or formulation.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

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 secretary 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. Human GH is a pleiotropic cytokine that exerts its biological actions by binding to the transmembrane GH receptor, which is present in many cell types. 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. In addition, GH can act directly on various cell types to induce lipolysis, lactation, amino acid uptake and protein synthesis.

Basic Information

Description
Recombinant Human Somatotropin/GH-N/GH1 Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Phe27-Phe217) of human GH (Accession #NP_000506.2) fused with an initial Met at the N-terminus and a 6×His tag at the C-terminus.

Activity
Measured by its binding ability in a functional ELISA. Immobilized Human GH1 at 2 μg/mL (100 μL/well) can bind Human GHR with a linear range of 0.1-19.4 ng/mL.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

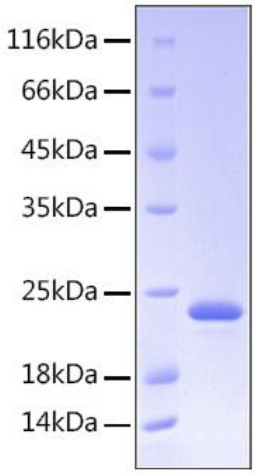
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

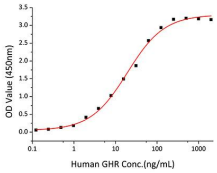
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Validation Data



Recombinant Human Somatotropin/GH-N/GH1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



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