CELL APPLICATIONS, INC.

RECOMBINANT PROTEINS

Human Growth Hormone

SIZE	CAT. NO.
100 ug	RP1040-100
500 ug	RP1040-500
5000 ug	RP1040-5000

BACKGROUND

Growth Hormone (GH) is an important growth factor made in and secreted throughout the body by the anterior pituitary gland. It stimulates growth and cell reproduction and regeneration in humans and other animals. The inability to appropriately produce or respond to GH results in diseases of decreased stature in children and adults. Although GH is used to treat several growth disorders, it is thought to be a very complex hormone with many of its functions yet to be uncovered.

Recombinant human GH is non-glycosylated protein, containing 192 amino acids, with a molecular weight of 22.2 kDa.

Alternative Names:
Somatotropin

Amino Acid Sequence:
MFPTIPLSRL FDNAMLRAHR LHQLAFDTYQ EFEEAYIPKE
QKYSFLQNPQ TSLCFSESIP TPSNREETQQ KSNLELLRIS
LLLIQSWLEP VQFLRSVFAN SLVYGASDSN VYDLLKDLEE
GIQTLMGRLE DGSPRTGQIF KQTYSKFDTN SHNDDALLKN
YGLLYCFRKD MDKVETFLRI VQCRSVEGSC GF

TECHNICAL INFORMATION

Source: *E.coli*

Physical Appearance:
Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:
Recombinant human GH is lyophilized from 20 mM NaHCO3, pH 8.0.

Stability:
Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:
Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

Protein Content and Purity determined by:

- UV spectroscopy at 280 nm
- RP-HPLC calibrated against a known standard
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

Endotoxin Level:
Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

Biological Activity:
The activity is determined by the ability to induce proliferation of Nb211 rat lymphoma cells for this effect and is typically 25-100 pg/mL.