

# Rec. Human Growth Hormone

## rHuGH

Product	Cat#	Package size
Recombinant Human Growth Hormone	C6002.0100	100µg
Recombinant Human Growth Hormone	C6002.0500	500µg
Recombinant Human Growth Hormone	C6002.1000	1mg

### Product description

GH is a member of the somatotropin/prolactin family of hormones which play an important role in growth control. The gene, along with four other related genes, is located at the growth hormone locus on chromosome 17 where they are interspersed in the same transcriptional orientation; an arrangement which is thought to have evolved by a series of gene duplications. The five genes share a remarkably high degree of sequence identity. Alternative splicing generates additional isoforms of each of the five growth hormones, leading to further diversity and potential for specialization. This particular family member is expressed in the pituitary but not in placental tissue as is the case for the other four genes in the growth hormone locus. Mutations in or deletions of the gene lead to growth hormone deficiency and short stature.

Recombinant human Growth Hormone (rHuGH) is produced in *E. Coli* as a single, non-glycosylated, polypeptide of 191 amino acids and a molecular mass of 22kDa.

### Synonyms:

GH1, GH, GHN, GH-N, hGH-N, Pituitary growth hormone, Growth hormone 1, Somatotropin.

**Source:** *E. coli*

### Biological activity

The ED50 was determined by the proliferation assay of rat lymphoma NB2-11 cells and was found to be less than 0.1ng/mL, corresponding to a specific activity of  $> 1.0 \times 10E7$  IU/mg.

**Purity:** >96% determined by SDS-PAGE

### Amino acid sequence:

FPTIPLSRFL DNAMLRAHRL HQLAFDITYQE FEEAYIPKEQ KYSFLQNPQT SLCFSESIPT PSNREETQK SNLELLRISL LLIQSWLEPV QFLRSVFANS  
 LVYGASDSNV YDLLKDLEEG IQTLMGRLED GSPRTGQIFK QTYSKFDNTS HNDALLKNY GLLYCFRKDM DKVETFLRIV QCRSVEGSCG F

### Formulation

GH protein lyophilized from a 0.2µm filtered concentrated solution with 20mM PB, pH 7.0 and 3% Mannitol.

### Stability

Lyophilized Growth Hormone (rHuGH) although stable at room temperature for 3 weeks, should be stored desiccated below -20°C. Upon reconstitution Growth Hormone (rHuGH) should be stored at +2°C to +8°C between 2-7 days and for future use below -20°C. **Please prevent from repeated freeze-thawing cycles.**

### Reconstitution

We recommend reconstituting the lyophilised Growth Hormone (rHuGH) in sterile demineralised water at a concentration of not less than 100µg/mL which can be further diluted to other aqueous solutions.

### Usage

This product is for research/laboratory usage only. It may not be used as drug, agricultural or pesticidal product, food additive or household chemical.