Active Recombinant Human Growth Hormone 1

Cat. No. GH1-641H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	GH1 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 192 amino acids and having a molecular mass of 22260.01 Dalton. Growth Hormone is purified by proprietary chromatographic techniques.
Species	Human
Source	Human
Description	GH1 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.
Form	The GH1 (1mg/ml) was lyophilized after extensive dialyses against 8mg mannitol and 0.34mg sodium phosphate buffer (0.02 mg sodium phosphate monobasic & 0.32mg sodium phosphate dibasic).
Purity	Greater than 98.0% as determined by(a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Bio-activity	ProSpecμs GH contains 3 units/mg corresponding to a Specific Activity of 333,334ng/ml.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Solubility	It is recommended to reconstitute the lyophilized HGH in sterile 18Mμ-cm H2O not less than 100g/ml, which can then be further diluted to other aqueous solutions.
Amino acid sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Met-Phe-Pro-Thr-Ile.
Protein content	Protein quantitation was carried out by two independent methods 1. UV spectroscopy at 280 nm using the absorbency value of 0.72 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a calibrated solution of GH as a Reference Standard.
Storage	Lyophilized GH1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution HGH should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	GH1 growth hormone 1 [Homo sapiens]
Official Symbol	GH1
Synonyms	GH1; GH; GHN; GH-N; hGH-N; IGHD1B; somatotropin; pituitary growth hormone
Gene ID	2688

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

mRNA Refseq	NM_000515
Protein Refseq	NP_000506
MIM	139250
UniProt ID	P01241
Chromosome Location	17q24.2
Pathway	Adipogenesis; Cytokine-cytokine receptor interaction; Diabetes pathways; Endochondral Ossification; Jak-STAT signaling pathway; Neuroactive ligand-receptor interaction; Synthesis
Function	growth factor activity; growth hormone receptor binding; hormone activity; metal ion binding; prolactin receptor binding; protein binding
Growthhormone	

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA