

GH Human

Description: GH 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.

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

Source: Escherichia Coli.

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

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.

Purity: Greater than 98.0% as determined by (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Formulation:

The GH (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).

Stability:

Lyophilized GH 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.

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. They may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Solubility:

It is recommended to reconstitute the lyophilized HGH in sterile 18M-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Introduction:

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.

Biological Activity:

References:

Title:Growth Hormone-Releasing Hormone (GHRH) Neurons in the Arcuate Nucleus (Arc) of the Hypothalamus Are Decreased in Transgenic Rats Whose Expression of Ghrelin Receptor Is Attenuated: Evidence that Ghrelin Receptor Is Involved in the Up-Regulation of GHRH Expression in the Arc.Publication:Published online before print May 25, 2006, doi: 10.1210/en.2005-1619 Endocrinology September 1, 2006 vol. 147 no. 9 4093-4103.Link:<http://endo.endojournals.org/content/147/9/4093.full>

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