



Placental Growth Hormone-20K, human recombinant (rHuplaGH-20K)

Catalog No: 94947
Lot No: XXXXX
Source: *E. coli*
Synonyms: GHL, GHV, GH-V, hGH-V, PGH

Background

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.

Description

Growth Hormone Placental 20 kDa human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 177 amino acids and having a molecular mass of 20498 Dalton. Predicted pI=8. 20. Growth Hormone 20K placental is devoid of lactogenic (prolactin receptor mediated) activity characteristic to pituitary GHs. GH 20K placental is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

pGH 20 kDa was lyophilized from a concentrated (1 mg/ml) solution with 0.0045 mM NaHCO₃ previously adjusted pH 11.

Solubility

It is recommended to reconstitute the lyophilized Placental GH in 0.4% NaHCO₃ or water adjusted to pH 11, not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Growth Hormone 20K Placental, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution and filter sterilization GH 20K pl can be stored at 4°C for up to 4 weeks. For long term storage and more diluted solutions it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 98.0% as determined by (a) Analysis by SEC-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Phe-Pro-Thr-Ile.

Usage

This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.

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