

Growth Hormone, chicken recombinant (rchGH)

Catalog No: 87391 Lot No: XXXXX Source: *E. coli*

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

Background

GH is a member of the somatotropin/prolactin family of hormones which play an important role in growth control. Its major role in stimulating body growth is to stimulate the liver and other tissues to secrete IGF-1. It stimulates both the differentiation and proliferation of myoblasts. It also stimulates amino acid uptake and protein synthesis in muscle and other tissues.

Description

Growth Hormone chicken recombinant (cGH) produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 191 amino acids with an additional Ala at its N-terminus and having a molecular mass of 22255 Dalton. GH is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized from a concentrated (1 mg/ml) solution with 0.3% NaHCO₃ adjusted to pH 8.

Solubility

It is recommended to reconstitute the lyophilized GH in sterile water or 0.4% NaHCO₃ adjusted to pH 8-9, not less than 100 µg/ml and not more than 3 mg/ml, which can then be further diluted to other aqueous solutions, preferably in presence of carrier protein.

Stability

Lyophilized GH, although stable at room temperature for 3 weeks, should be stored desiccated below -18 $^{\circ}$ C. Upon reconstitution at > 0.1 mg/ml and filter sterilization GH can be stored at 4 $^{\circ}$ C for several weeks. At lower concentration addition of a carrier protein (0.1% HSA or BSA) is recomended. Please prevent freeze-thaw cycles.

Purity

Greater than 99.0% as determined by (a) Analysis by SDS-PAGE, (b) Analysis by SEC-HPLC.

Amino Acid Sequence

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

Activity

Chicken recombinant GH is fully biologically active in homologous assays and in PDF-P1 3B9 cells stably transfected with rabbit GH receptors.





Usage

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