Recombinant Chicken Growth Hormone 1

Cat. No. GH1-30C **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Chicken Growth Hormone (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. Recombinant Chicken GH is purified by proprietary chromatographic techniques.
Species	Chicken
Source	E.coli
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.
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.

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Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	Greater than 99.0% as determined by: (a) Analysis by SDS-PAGE gel. (b) Analysis by RP-HPLC.
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 Chicken Recombinant in sterile water or 0.4% $NaHCO_3$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.
Specific Activity	GH Chicken Recombinantis fully biologically active in homologous assays and in PDF-P1 3B9 cells stably transfected with rabbit GH receptors.
Protein content	Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 0.75 as the extinction coefficient for a 0.1% (1 mg/ml) solution at pH 8.0 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 others GHs as a Reference Standard.
Stability	Lyophilized GH Chicken although stable at room temperature for 3 weeks, should be stored desiccated below -18℃. Upon reconstitution at > 0.1 mg/ml and filter sterilization GH can be stored at 4℃for several weeks. At lower concentration addition of a carrier protein (0.1% HSA or BSA) is recomended. Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	GH1 growth hormone 1 [Gallus gallus]

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Synonyms	GH1; growth hormone 1
Gene ID	378781
mRNA Refseq	NM_204359
Protein Refseq	NP_989690
UniProt ID	P08998
Function	growth hormone receptor binding; hormone activity

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