9051 Mira Mesa Blvd, #910094
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GH Carp

Growth Hormone Carp Recombinant
GRF0118

Product Overview

Name	GH Carp
Description	
Growth Hormone Carp Recombinant	
Accession (Primary)	P10298
Synonyms	
GH1, GH, GHN, GH-N, hGH-N,Pituitary growth hormone, Growth hormone 1, Somatotropin.	
Introduction	
Growth-Hormone 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.	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
The GH Carp was lyophilized from a concentrated (1mg/ml) solution with 0.3% NaHCO3 adjusted to pH 8.	
Stability	
Lyophilized Growth Hormone Carp recombinant although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Growth Hormone Carp 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.	
Purity	
Greater than 95.0% as determined by: (a) Analysis by SEC-HPLC. (b) Analysis by SDS-PAGE.	

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Amino acid sequence

The sequence of the first five N-terminal amino acids was determined and found to be Ser-Asp-Asn-Gln-Arg.

Biological Activity

Carp GH is biologically active in rat 3T3 F442A preadipocytes, though its activity is 15-fold lower compared to bovine GH, but it is equally potent in vivo in promoting carp growth (Fine et al.1993). Furthermore, carp GH forms 1:2 complex with the extra cellular domain of ovine growth hormone receptor.

Solubility

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

References

Title :Growth Hormone Promotes Hair Cell Regeneration in the Zebrafish (Danio rerio) Inner Ear following Acoustic Trauma. Publication :Sun H, Lin C-H, Smith ME (2011) Growth Hormone Promotes Hair Cell Regeneration in the Zebrafish (Danio rerio) Inner Ear following Acoustic Trauma. PLoS ONE 6(11): e28372. doi:10.1371/journal.pone.0028372 Link : GH Carp prospec publication

Precautions

GH Carp is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P10298)