

GH1

Recombinant Carp Growth Hormone

Catalog No.	CRH207A CRH207B CRH207C	Quantity:	10 µg 50 µg 1.0 mg
Alternate Names:	GH1, GH, GHN, GH-N, hGH-N, Pituitary growth hormone, Growth hormone 1, Somatotropin.		
Description:	<p>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.</p> <p>Recombinant Carp Growth Hormone produced in <i>E. Coli</i> is a single, non-glycosylated, polypeptide chain containing 188 amino acids & having a molecular mass of 21,408 Dalton.</p> <p>Carp Growth Hormone is purified by proprietary chromatographic techniques.</p>		
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.		
Source:	<i>E. coli</i>		
Molecular Mass:	21,408 Dalton		
Formulation:	The Carp GH was lyophilized from a concentrated (1mg/ml) solution with 0.3% NaHCO ₃ adjusted to pH 8.		
Purity:	Greater than 95.0% as determined by: (a) Analysis by SEC-HPLC. (b) Analysis by SDS-PAGE.		
Solubility:	It is recommended to reconstitute the lyophilized Growth Hormone Carp recombinant in sterile 18MΩ-cm H ₂ O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Purification:	Carp Growth Hormone is purified by proprietary chromatographic techniques.		
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 <i>in vivo</i> 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.		
Amino Acid Sequence:	The sequence of the first five N-terminal amino acids was determined and found to be Ser-Asp-Asn-Gln-Arg.		
Storage & Stability:	Lyophilized Carp Growth Hormone recombinant although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Carp Growth Hormone should be stored at 4°C between 2-7 days and for future use below -18°C.		

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For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).
Please prevent freeze-thaw cycles.

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