9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

GH Gilthead Seabream

Growth Hormone Gilthead Seabream Recombinant
GRF0120

Product Overview

Name	GH Gilthead Seabream
Description	
Growth Hormone Gilthead Seabream Recombinant	
Accession (Primary)	P29971
Synonyms	
GH1, GH, GHN, GH-N, hGH-N, Pituitary growth hormone, Growth hormone 1, Somatotropin.	
Introduction	
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.	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
The protein was lyophilized from a concentrated (1mg/ml) solution with 0.02% NaHCO3.	
Stability	
Lyophilized Growth-Hormone Gilthead Seabream although stable at room temperature for at least two weeks, should be stored desiccated below -18°C. Upon reconstitution and filter sterilization GH can be stored at 4°C, pH 9 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.	

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Amino acid sequence

A QPITDGQRLFSIAVSRVQHLHLLAQRLFSDFESSLQTEEQPQLNKIFLQ

DFCNCDYIISPIDKHETQRSSVLKLLSISYRLVESWEFPSRSLSGGSAPR

NQISPKLSELKTGIHLLIRANEDGAEIFPDRSALQLAPYGNYYQSLGTDE

SLRRTYELLACFKKDMHKVETYLTVAKCRLSPEANCTL

Biological Activity

Binding assays of the 125I-labeled gilthead seabream GH to dolphin fish liver microsomal fraction resulted in high specific binding characterized by a Ka of 1.93 nM and a Bmax of 540 fmol/mg microsomal fraction protein. Recombinant gilthead seabream Growth Hormone, like ovine placental lactogen, exhibited growth-stimulating activity when applied orally to Sparus aurata larvae or intraperitoneally to juvenile fish.

Solubility

It is recommended to reconstitute the lyophilized Growth-Hormone Gilthead Seabream in 0.4% NaHCO3 or water adjusted to pH 8-9, not less than 100 µg/ml, which can then be further diluted to other aqueous solutions, preferably in a presence of a carrier protein such as BSA or similar.

Precautions

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

Target Information: (P29971)