

32-1274: sGH Recombinant Protein

Alternative Name : GH1,GH,GHN,GH-N,hGH-N,Pituitary growth hormone,Growth hormone 1,Somatotropin.

Description

Source : Escherichia Coli. Somatotropin Gilthead Seabream Recombinant Sparus Aurata produced in E.Coli is a single, non-glycosylated polypeptide chain containing 188 amino acids with an additional Ala at the N-terminus and having a molecular mass of 21.4 kDa. The Gilthead Seabream Growth-Hormone Recombinant is purified by proprietary chromatographic techniques. 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.

Product Info

Amount :	50 µg
Purification :	Greater than 98.0% as determined by:(a) Analysis by SEC-HPLC.(b) Analysis by SDS-PAGE.
Content :	The protein was lyophilized from a concentrated (1mg/ml) solution with 0.02% NaHCO ₃ . 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.
Storage condition :	
Amino Acid :	The sequence of the first ten N-terminal amino acids of recombinant Gilthead Seabream growth hormone was determined and was found to be Ala-Gln-Pro-Ile-Thr-Asp-Gly-Gln-Arg-Leu.

Application Note

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 100µg/ml, which can then be further diluted to other aqueous solutions, preferably in a presence of a carrier protein such as BSA or similar. Binding assays of the ¹²⁵I-labeled gilthead seabream GH to dolphin fish liver microsomal fraction resulted in high specific binding characterized by a K_a of 1.93 nM and a B_{max} 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.