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32-6377: GH Rainbow Trout

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

Description

Source: Escherichia Coli.
Sterile Filtered White lyophilized (freeze-dried) powder.
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.
Somatotropin Rainbow Trout (Oncorhynchus mykiss) Recombinant 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, 535 Dalton. The Rainbow Trout (Oncorhynchus mykiss) Growth-Hormone Recombinant is purified by proprietary chromatographic techniques.

Product Info

Amount :	2 µg / 10 µg
Purification :	Greater than 95.0% 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 0.5% NaHCO3. Adjusted to pH-8. It is recommended to reconstitute the lyophilized Growth-Hormone Rainbow Trout (Oncorhynchus mykiss) in 0.4% NaHCO3 or water adjusted to pH 8-9, not less than 100µg/ml and not more than 3mg/ml, which can then be further diluted to other aqueous solutions, preferably in a presence of a carrier protein such as BSA or similar.
Storage condition :	Lyophilized Growth-Hormone Rainbow Trout (Oncorhynchus mykiss) 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.
Amino Acid :	AIENQRLFNIAVSRVQHLHLLAQKMFNDFDGTLLPDERRQLNKIFLLDFCNSDSIVSPVDKHETQKSSVLKLLHIS FRLIESWEYPSQTLIISNSLMVRNANQISEKLSDLKVGINLLITGSQDGVLSLDDNDSQQLPPYGNYYQNLGGDG NVRRNYELLACFKKDMHKVETYLTVAKCRKSLEANCTL.

Application Note

Somatotropin Rainbow Trout (Oncorhynchus mykiss) Recombinant is biologically active in PDF-P1 3B9 cells stable transfected with rabbit GH receptors, though its activity is about 10 fold lower than that of human GH.

For Research Use Only. Not for use in diagnostic/therapeutics procedures.