

## GH Rat

**Description:** Growth Hormone Rat Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 190 amino acids and having a molecular mass of 21810 Dalton. GH is purified by proprietary chromatographic techniques.

**Synonyms:** GH1, GH, GHN, GH-N, hGH-N, Pituitary growth hormone, Growth hormone 1, Somatotropin.

**Source:** Escherichia Coli.

**Physical Appearance:** Sterile Filtered White lyophilized (freeze-dried) powder.

**Purity:** Greater than 97.0% as determined by: (a) Analysis by SEC-HPLC. (b) Analysis by SDS-PAGE.

**Formulation:**

The protein (1mg/ml) was lyophilized after extensive dialyses against 5mM phosphate buffer, 5mg mannitol and 1mg glycine.

**Stability:**

Lyophilized Growth Hormone Rat although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution GH Rat 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.

**Usage:**

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

**Solubility:**

It is recommended to reconstitute the lyophilized Growth Hormone Rat in sterile 18M-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

**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.

**References:**

Title: GHRELIN HYPORESPONSIVENESS CONTRIBUTES TO AGING-RELATED HYPERINFLAMMATION IN SEPTIC SHOCK. Publication: Ann Surg. Author manuscript; available in PMC 2010 July 1. Published in final edited form as: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2797311/>

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Catalog #:CYP5-303

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