

# Recombinant Rat Growth Hormone 1

**Cat. No.** Gh1-372R    **Lot. No.** (See product label)

## SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>    | Recombinant Rat Gh1 produced in E. coli is a single, non-glycosylated, polypeptide chain containing 190 amino acids and having aMW 21.81 kDa.                                                                                                                                                                                                                                                                                                             |
| <b>Species</b>             | Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Source</b>              | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>         | A polypeptide that is secreted by the adenohypophysis. Gh1, also known as somatotropin, stimulates mitosis, cell differentiation and cell growth. Species-specific Gh1 have been synthesized. GH1 augments the cytolytic activity of T-cells, antibody synthesis, and granulocyte differentiation induced by GM-CSF. GH1 also enhances production of TNF-alpha, generation of superoxide anions from peritoneal macrophages, and natural killer activity. |
| <b>Form</b>                | Rat Gh1 (1 mg/ml) was lyophilized after extensive dialyses against 5 mM phosphate buffer + 5 mg mannitol + 1 mg glycine.                                                                                                                                                                                                                                                                                                                                  |
| <b>Purity</b>              | Greater than 97.0% as determined by analysis by RP-HPLC and by analysis by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Reconstitution</b>      | It is recommended to reconstitute the lyophilized Gh1 Rat in sterile 18MΩ-cm H <sub>2</sub> O not less than 100 ug/ml, which can then be further diluted to other aqueous solutions.                                                                                                                                                                                                                                                                      |
| <b>Amino Acid Sequence</b> | The sequence of the first five N-terminal amino acids is Met-Phe-Pro-Thr-Ile.                                                                                                                                                                                                                                                                                                                                                                             |

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**Storage** Lyophilized Growth Hormone Rat although stable at room temperature for 3 weeks, should be stored desiccated below -20°C. Upon reconstitution Gh1 Rat should be stored at 2-4°C between 2-7 days and for future use below -20°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please avoid freeze-thaw cycles.

**Official Symbol** Gh1

## GENE INFORMATION

**Gene Name** Gh1 growth hormone 1 [ *Rattus norvegicus* ]

**Synonyms** Gh1; growth hormone 1; Gh; RNGHGP; somatotropin

**Gene ID** 24391

**mRNA Refseq** NM\_001034848

**Protein Refseq** NP\_001030020

**UniProt ID** P01244

**Chromosome Location** 10q32

**Pathway** Adipogenesis; Diabetes pathways; Jak-STAT signaling pathway; Neuroactive ligand-receptor interaction; Synthesis, Secretion, and Deacylation of Ghrelin

**Function** growth factor activity; growth hormone receptor binding; hormone activity; metal ion binding; prolactin receptor binding

**Growth hormone.**

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