



## PRODUCT DATA SHEET

**Product:** Growth Hormone (recombinant rat)

**Cat. No.:** BC-262 (100 µg)

**Synonyms:**

Somatotropin precursor, GH

**Background:**

Growth hormone is a polypeptide that is secreted by the adenohypophysis. Growth hormone stimulates mitosis, cell differentiation and cell growth. Species-specific growth hormones have been synthesized. GH augments the cytolytic activity of T-cells, antibody synthesis, and granulocyte differentiation induced by GM-CSF. GH also enhances production of TNF-alpha, generation of superoxide anions from peritoneal macrophages, and natural killer activity.

**Description:**

Recombinant rat Growth Hormone produced in *E. Coli* is a single, non-glycosylated polypeptide chain having a molecular mass of 21,940 Dalton. Recombinant rat GH is purified by proprietary chromatographic techniques.

**Amino Acid Sequence:**

The sequence of the first five N-terminal amino acids was determined to be Met-Phe-Pro-Thr-Ile.

**Origin:**

Produced in *E. Coli*.

**Format:**

Sterile filtered white powder. Lyophilized after extensive dialysis against 5 mM phosphate buffer, 5 mg mannitol and 1 mg glycine.

**Purity:**

Greater than 97.0% as determined by RP-HPLC, anion-exchange FPLC, reducing and non-reducing SDS-PAGE Silver Stained gel. Dimers and aggregates: less than 1% as determined by SDS-PAGE.

**Endotoxin:**

Less than 0.1 ng/µg (IEU/µg) of rat GH.

**Reconstitution:**

Reconstitute in sterile 18 MΩ-cm H<sub>2</sub>O at not less than 100 µg/mL, which can then be further diluted to other aqueous solutions.

**Storage:**

Lyophilized recombinant rat GH, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution recombinant rat GH 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).

**Limitations:**

For *in vitro* research use only. Not for use in diagnostics or in humans.

**Warranty:**

No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.