



PRODUCT DATA SHEET

Product: Growth Hormone (recombinant sheep)

Cat. No.: BC-261 (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 sheep Growth Hormone produced in *E. Coli* is a single, non-glycosylated polypeptide chain containing 200 amino acids and having a molecular mass of 22,015 Dalton. Recombinant sheep 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-Ala-Phe-Pro-Ala.

Origin:

Produced in *E. coli*.

Format:

Sterile filtered white lyophilized (freeze-dried) powder concentrated from a solution of 1 mg/mL with 0.0045 mM NaHCO₃.

Purity:

Greater than 98.0% 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 sheep GH.

Reconstitution:

Reconstitute in sterile 18 MΩ-cm H₂O at not less than 100 µg/mL, which can then be further diluted to other aqueous solutions.

Biological Activity:

Recombinant sheep Growth Hormone is fully biologically active when compared to standard. The activity was determined by the dose-dependant stimulation of the proliferation FDCP13B9 cells.

Storage:

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