Data sheet

IFTA AG
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DIN EN ISO 9001
Reg. No. IC 03214 034

Jena Bioscience

GH
Growth Hormone
ovine (sheep), recombinant, *E. coli*

Cat. No.	Amount
PR-433	100 µg

For *in vitro* use only
Quality guaranteed for 12 months
Store at -80°C

Avoid freeze / thaw cycles

Form
Lyophilized. GH was lyophilized from a 1 mg/ml solution with 0.0045 mM $NaHCO_3$.

Solubility
It is recommended to reconstitute the lyophilized GH in sterile bidest H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

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

Molecular Weight
22 kDa

Purity
≥ 95% by SDS-PAGE and RP-HPLC

Description
The Growth Hormone (GH) is a polypeptide that is secreted by the adenohypophysis. Growth hormone, also known as somatotropin, 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.
Recombinant Ovine 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 kDa.
Recombinant Ovine GH is purified by proprietary chromatographic techniques.

Selected References:

Gupta *et al.* (2003) Optimization of immobilized metal ion affinity chromatography for single-step purification of recombinant ovine growth hormone expressed in Escherichia coli. *J. Chromatogr. A.* **998**:93.
Adams *et al.* (2002) The impact of a transgene for ovine growth hormone on the performance of two breeds of sheep. *J. Anim. Sci.* **80**:2325.
Panda *et al.* (1999) Kinetics of inclusion body production in batch and high cell density fed-batch culture of Escherichia coli expressing ovine growth hormone. *J. Biotechnol.* **75**:161.
Puri *et al.* (1999) Effect of the codon following the ATG start site on the expression of ovine growth hormone in *Escherichia coli*. *Protein Expr. Purif.* **17**:215.
Sami *et al.* (1999) Production and character isation of deletion mutants of ovine growth hormone. *J. Mol. Endocrinol.* **23**:97.
Allan *et al.* (1999) Identification of novel sites in the ovine growth hormone receptor involved in binding hormone and conferring species specificity. *Eur. J. Biochem.* **261**:555.