

GH

Growth Hormone

rat, recombinant, *E. coli*

Cat. No.	Amount
PR-434	100 μ g

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Form

Lyophilized.

Solubility

It is recommended to reconstitute the lyophilized GH in sterile bidest H₂O not less than 100 μ g/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/ μ g (IEU/ μ g) of GH.

Molecular Weight

22 kDa

Purity

\geq 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 Rat GH produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing having a molecular mass of 21.94 kDa.

Rat-GH is purified by proprietary chromatographic techniques.

Selected References:

- Flint *et al.* (1993) Influence of growth hormone deficiency on growth and body composition in rats: site-specific effects upon adipose tissue development. *J. Endocrinol.* **137**:203.
- Veyrat-Durebex *et al.* (2004) Internalization and trafficking of the human and rat growth hormone-releasing hormone receptor. *J. Cell. Physiol.* **203**:335.
- Hajdu *et al.* (2003) Sleep of transgenic mice producing excess rat growth hormone. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* **282**:R70.
- Spodsberg *et al.* (2001) Characteristics and structural requirements of apical sorting of the rat growth hormone through the O-glycosylated stalk region of intestinal sucrase-isomaltase. *J. Biol. Chem.* **276**:46597.
- Cabanillas *et al.* (2001) T3-activation of the rat growth hormone gene is inhibited by a zinc finger/homeodomain protein. *Mol. Cell. Endocrinol.* **181**:131.
- Johansen *et al.* (2000) Comparison of methods of analysis of body composition in hypophysectomized rats treated with rat growth hormone. *Growth Horm. IGF Res.* **10**:342.
- Nass *et al.* (2000) Intracerebroventricular administration of the rat growth hormone (GH) receptor antagonist G118R stimulates GH secretion: evidence for the existence of short loop negative feedback of GH. *J. Neuroendocrinol* **12**:1194.