

Recombinant Mouse Growth Hormone

Cat. No. GH-04M Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Growth Hormone produced in E. coli is a single, non-glycosylated, polypeptide chain containing 191 amino acids and having a molecular mass of 22.0 kDa.
Species	Mouse
Source	E.coli
Description	GH is a member of the somatotropin / prolactin family of hormones which play an important role in growth control. The gene, along with four other related genes, is located at the growth hormone locus on chromosome 17 where they are interspersed in the same transcriptional orientation; an arrangement which is thought to have evolved by a series of gene duplications. The five genes share a remarkably high degree of sequence identity. Alternative splicing generates additional isoforms of each of the five growth hormones, leading to further diversity and potential for specialization. This particular family member is expressed in the pituitary but not in placental tissue as is the case for the other four genes in the growth hormone locus. Mutations in or deletions of the gene lead to growth hormone deficiency and short stature.
Purity	>95% as determined by SEC-HPLC and SDS-PAGE.
Formulation	Mouse GH was lyophilized after extensive dialysis against 50mM Tris-HCl, pH8.0, 150mM NaCl buffer.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Specific Activity	Recombinant mouse growth hormone is fully biologically active when compared to standard human growth hormone which is 3 units/mg.
Endotoxin	Less than 0.1ng/μg (1 IEU/μg) determined by LAL test.
Reconstitution	It is recommended to reconstitute the lyophilized rmGH in sterile 18MΩ-cm H ₂ O not less than 100g/ml, which can then be further diluted to other aqueous solutions.
Storage	Lyophilized rmGH although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rmGH 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). Aliquot to avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	Gh
Synonyms	RP23-418O11.6; GH1; GHN; GH-N; hGH-N; Pituitary growth hormone; Growth hormone 1; Somatotropin; Somatotropin Precursor; growth hormone; Gh
Gene ID	14599
mRNA Refseq	NM_008117.2
Protein Refseq	NP_032143.1
MIM	139250
UniProt ID	P06880

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Chromosome Location	11 D; 1165.0 cM
Pathway	Jak-STAT signaling pathway; Neuroactive ligand-receptor interaction
Function	growth hormone receptor binding; hormone activity
PDBrendering based on 1bas.	