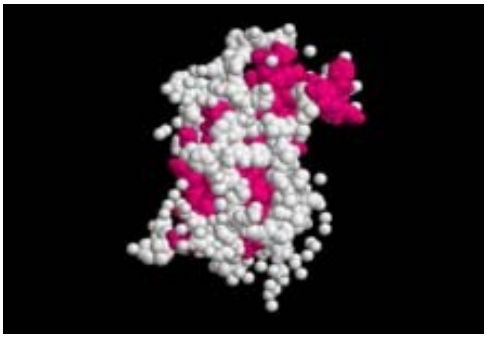
# Recombinant Mouse Growth Hormone

Mouse, Recombinant (GH)
Expressed in *E. coli*
*Cat. No. CRP0830*
*Lot. No. (See product label)*



PDB rendering based on 1bas.

## PRODUCT INFORMATION

***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.

***Amino-Acid Sequence:*** 191aa (The sequence of the first five N-terminal amino acids was determined and was found to be Met-Phe-Pro-Ala-Met.), non-glycosylated.

***M. W. :*** 22,000 Da

***Recombinant:*** Expressed in *E. coli*

***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 buffre.

***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 H2O not less than 100μg/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
***mRNA Refseq:*** NM_008117.2
***Protein Refseq:*** NP_032143.1
***MIM:*** 139250
***GeneID:***14599
***Chromosome Location:*** 11 D; 11 65.0 cM
***Pathway:***Jak-STAT signaling pathway；Neuroactive ligand-receptor interaction
***Function:***growth hormone receptor binding; hormone activity

## REFERENCES

1.Alba-Roth J, et al .Arginine stimulates growth hormone secretion by suppressing endogenous somatostatin secretion. J Clin Endocrinol Metab. 1988; 67 (6): 1186–1189

2.Scarth J. Modulation of the growth hormone-insulin-like growth factor (GH-IGF) axis by pharmaceutical, nutraceutical and environmental xenobiotics: an emerging role for xenobiotic-metabolizing enzymes and the transcription factors regulating their expression. A review. Xenobiotica. 36 (2 -3): 119–218

3.Takahashi Y, Kipnis D, Daughaday W. Growth hormone secretion during sleep. J Clin Invest. 1968; 47 (9): 2079–2090

***FOR RESEARCH USE ONLY***



45-16 Ramsey Road Shirley, NY 11967, USA
Technical Support: T: 631-871-5806 ·F: 631-207-8356
E-mail: info@creative-biolabs.com
www.creative-biolabs.com