

Growth Hormone Recombinant Human Protein

Product Specifications

Catalog Number:	908-051
Source:	Recombinant human HGF expressed in <i>E. coli</i>
Applications:	In Vitro Assay WB Control
Molecular Weight:	~22 kDa
Purity:	> 99.0% as determined by RP-HPLC analysis, Anion-exchange FPLC, and SDS-PAGE analysis
Endotoxin:	< 0.1 ng/μg (IEU/μg) of recombinant human GH
Biological Activity:	Fully biologically active when compared to WHO reference standard 3 units/mg
Format:	Sterile filtered white liquid lyophilized after extensive dialyses against phosphate buffer
Concentration:	See product label
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store lyophilized below -20°C; store reconstituted at 4°C for 2-7 days or below -20°C with added carrier protein (0.1% HSA or BSA) for long term storage (aliquot to avoid repeated freeze-thaw cycles)
Related Products:	
900-008	17β-Estradiol EIA Kit
901-008	17β-Estradiol EIA Kit
900-150	IGF-1 (human) EIA Kit
900-080	VEGF (human) EIA Kit
905-164	VEGF Monoclonal Antibody (6B7)

Background:

Growth Hormone (GH) and other members of the somatotropin/prolactin family of proteins play an important role in growth control. The GH gene and four related genes inhabit the growth hormone locus on chromosome 17, with all five interspersed in a transcriptional orientation which possibly evolved through a series of gene duplications. The five genes share a remarkably high degree of sequence identity, and expression of all five genes occurs in the pituitary, but not in placental tissue. Alternative splicing generates additional isoforms of each of the five growth hormones, leading to further diversity and potential for specialization. Mutations in or deletions of the gene lead to growth hormone deficiency and short stature.

References:

1. Korpál-Szczyrska, M., *et al.* (2006) Endokryn Diabet Chor Przem Materii Wieku Rozw **12**, 31-34.
2. Hickey, J., *et al.* (2005) J Med Food **8**, 556-559.
3. Mulhall, C., *et al.* (2005) Cancer Epid Biom Prev. **14**, 2648-2654.
4. Chen, X.Q., *et al.* Mol Cell Endocrinol **242**, 50-58.
5. Sadacharan, S.K., *et al.* Histochem Cell Biol. **124**, 409-421.
6. Ezzat, S., *et al.* (2005) Mol Endocrinol. **19**, 1004-1011.

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Last Revised: 10/21/08